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DOCKET NO: 000075-TP

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1. Official Recognition List

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OFFICIAL RECOGNITION LIST

FLORIDA COMMISSION ORDERS

1. Docket No. 950985-TP
   a. Order No. PSC-96-0445-FOF-TP

2. Docket No. 960355-TP
   a. Order No. PSC-96-1545-FOF-TP

2. Consolidated Docket No. 971478-TP
   a. Order No. PSC-98-1216-FOF-TP

3. Docket No. 980986-TP
   a. Order No. PSC-99-1477-FOF-TP

4. Docket No. 981008-TP
   a. Order No. PSC-99-0658-FOF-TP

5. Docket No. 990149-TP
   a. Order No. PSC-99-2009-FOF-TP

6. Docket No. 990691-TP
   a. Order No. PSC-00-0128-FOF-TP

7. Docket No. 990750-TP
   a. Order No. PSC-00-0537-FOF-TP

8. Docket No. 991220-TP
   a. Order No. PSC-00-1680-FOF-TP

9. Docket No. 991267-TP
   a. Order No. PSC-00-0802-FOF-TP

10. Docket No. 991854-TP
    a. Order No. PSC-00-1519-PCO-TP

11. Docket No. 000649-TP
    a. Commission Order resulting from decision on February, 21, 2001 Special Agenda Conference regarding issues identified in Order No. PSC-00-1324-PCO-TP.[1]

[1] Subject to objection of the parties following release of the order

FCC ORDERS AND RULES

1. FCC CC DN 78-72
   a. Memorandum Opinion and Order, 1983 (MTS/WATS Market Structure Order)

2. FCC CC Docket No. 87-215

   a. Notice of Proposed Rulemaking 07/17/1987
   b. ESP Exemption Order 1988

3. FCC CC DN 96-98

a. Order No. 96-325	First Report and Order
b. Order No. 96-333	Second Report and Order
c. Order No. 96-394	Order on Reconsideration
d. Order No. 99-38	Declaratory Ruling- Inter-Carrier Compensation for ISP-Bound Traffic
e. Order No. 99-238	Third Report and Order (UNE Remand Order)
f. Order No. 99-355	Fourth Report and Order
g. Anticipated Order	FCC ruling regarding treatment of ISP-Bound traffic

4. FCC CC DN 96-149

   a. First Report and Order and Notice of Proposed Rulemaking

5. FCC CC DN 96-262, *et al*

a. Order No. 97-158	Access Charge Reform First Report and Order (1997)

6. FCC CC DN 98-147

a. Order No. 99-48	Deployment of Wireline Services Offering Advanced Telecommunications Capability
b. Order No. 99-330	Second Report and Order
c. Order No. 99-355	Third Report and Order
d. Order No. 99-413	Order on Remand
e. Order No. 00-26	Fourth Report and Order
f. Order No. 00-297	Order on Reconsideration

7. FCC Order No. 00-194	TSR Wireless, LLC v. US West Communications, Inc.
8. FCC Order No. 01-32	General Communication, Inc. v. Alaska Communications Systems Holdings, Inc. and Alaska Communications Systems, Inc. d/b/a ATU Telecommunications d/b/a Anchorage Telephone Utility
9. FCC Order No. 01-29	SouthWestern Bell Kansas/Oklahoma 271 Order
10. FCC Rules	47 C.F.R. Ch. 1, Part 51; Part 69.

11. Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), Docket No. 20828, Final Decision, 77 FCC2d 384 (1980) (Computer II);

12. FCC Order No. DA 00-2118	Cox Virginia Telecom, Inc. Petition for Preemption of Jurisdiction of the Virginia State Corporation Commission
13. FCC Order No. FCC 00-216	Starpower Communications, LLC, Petition for Preemption of Jurisdiction of the Virginia State Corporation Commission

OTHER STATE COMMISSIONS

1. Investigation of the Compensation Arrangements for the Exchange of Traffic Directed to Internet Service Providers, Order Establishing a Method for Pricing Reciprocal Compensation in Interconnection Agreements, Docket No. 05-TI-283 (PSC of Wisc. Nov. 2000)

2. Proceeding to Examine Reciprocal Compensation Pursuant to section 252 of the Federal Telecommunications Act of 1996, Docket No. 21982 (PUC of Texas, July 2000)

3. Proceeding on Motion of the Commission to Reexamine Reciprocal Compensation, Case 99-C-0529, Opinion No. 99-10 (New York PSC, Aug. 1999)

4. Iowa ISP Order: Docket No. ARD-00-1, Arbitration Order (Iowa Utilities Board, 12/21/2000.

5. West Virginia Case No. 99-0426-T-P, October 19, 1999.

6. In the Matter of the Petition of Sprint Communications Company, L.P. for Arbitration Pursuant to U.S. Code & 252(B) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with U S West Communications, Inc., Docket No. 00B-011T (Colorado Public Utilities Commission).

7. Decision Denying Application for Rehearing, Reargument, or Reconsideration, Docket No. 00B-11T (Colorado Public Utilities Commission, June 7, 2000.)

8. Decision No. 62650--In the Matter of the Petition of Sprint Communication Company, L.P. for Arbitration of Interconnection Terms, Conditions and Related Arrangements with U S West Communications, Inc., Docket Nos. T-01432B-00-0026 and T-01051B-00-0026, (Arizona Corporation Commission, 06/13/2000)

9. Preliminary Order, Petition of Starpower Communications, LLC, for Declaratory Judgment Interpreting Interconnection Agreement with GTE South, Inc. (Case No. PUC9900023) and Petition of Cox Virginia Telecom, Inc. v. GTE South Incorporated for enforcement of interconnection agreement for reciprocal compensation for the termination of local calls to Internet Service Providers (Case No. PUC9900046), Virginia State Corporation Commission, June 22, 1999

10. Final Order, Petition of Starpower Communications, LLC, for Declaratory Judgment Interpreting Interconnection Agreement with GTE South, Inc. (Case No. PUC9900023) and Petition of Cox Virginia Telecom, Inc. v. GTE South Incorporated for enforcement of interconnection agreement for reciprocal compensation for the termination of local calls to Internet Service Providers (Case No. PUC9900046), Virginia State Corporation Commission, January 24, 2000

COURT DECISIONS

1. Iowa Utils. Bd. v. Federal Communications Commission, 109 F.3d 418 (8th Cir. 1996)
2. Iowa Utils. Bd. v. Federal Communications Commission, 120 F.3d 753 (8th Cir. 1997)
3. AT&T Corp. v. Iowa Utils. Bd., 525 U.S. 366 (1999)
4. Iowa Utils. Bd. v. Federal Communications Commission, No. 96-3321 (8th Cir. June 10, 1999)
5. GTE Service Corporation v. Federal Communications Commission, 2000 U.S. App. LEXIS 4111 (D.C. Cir. Mar. 17, 2000)
6. Bell Atlantic Telephone Companies v. Federal Communications Commission, 2000 U.S. App. LEXIS 4685 (D.C. Cir. Mar. 24, 2000)
7. Southwestern Bell Tel. Co. v. PUC of Texas, 2000 U.S. App. Lexis 5642 (5th Cir. Mar. 30, 2000)
8. MCI Telecommunications Corp. v. Illinois Bell Telephone, 1999 U.S. Dist. Lexis 11418 (N.D. Ill June 22, 1999)

FEDERAL ACT

1. The Telecommunications Act of 1996

FLORIDA STATUES

1. Chapter 364, Florida Statutes

REPORTS

1. "Pricing and Policies for Internet Traffic on the Public Switched Network," NARUC Internet Working Group, March 1998

2. "Impacts of Internet Traffic on LEC Networks and Switching Systems," BellCore, 1996

3. FCC "Digitial Tornado: The Internet and Telecommunications Policy," March 1997

4. FCC "Report to Congress," CC DN 96-45.

5. FCC "Local Competition Report," August 1999.

6. FCC "Trends in Telephone Service," March 2000.

FPSC COMMENTS TO THE FCC

1. FPSC Comments, FCC Docket No. 99-69, Inter-Carrier Compensation for ISP-Bound Traffic, April 9, 1999 and July 21, 2000.

BELLSOUTH'S OFFICIAL RECOGNITION LIST

In addition to the Staff's Official Recognition List, BellSouth adds the following:

1. BellSouth's A42 Tariff

2. BellSouth's A3 Tariff

3. FCC Docket No. 96-262
   Comments of AT&T - 3/24/97

4. FCC Docket No. 96-98
   FPSC Comments – 4/9/99

5. FPSC Docket Nos. 960833/960846/960919
   Order No. 96-1579-FOF-TP issued 12/31/96

6. Florida Public Service Commission
   Report on the Relationship of the Costs and Charges of Various Services Provided by Local Exchange Companies and Conclusions as to the Fair and Reasonable Florida Residential Basic Local Telecommunications Service Rate – dated February, 1999

CHAPTER 38
LOCAL EXCHANGE COMPETITION

199—38.1(476) General information.

38.1(1) *Application and purpose of rules.* This chapter applies to local utilities. The purpose of these rules is to further the development of competition in the local exchange services market.

38.1(2) *Definitions.* For the administration and interpretation of this chapter, the following words and terms shall have the meaning indicated below, unless the context otherwise requires:

"Act" means the Telecommunications Act of 1996.

"Arbitration" means the investigative process whereby a dispute is submitted to the board for resolution.

"Bona fide request" means a request to a local utility that demonstrates a good faith showing that the requesting party intends to purchase the services requested within six months of the date of the request.

"Competitive local exchange service provider" means any person that provides local exchange services, other than a local exchange carrier or a non-rate-regulated wireline provider of local exchange services under an authorized certificate of public convenience and necessity within a specific geographic area described in maps filed with and approved by the board as of September 30, 1992.

"Interim number portability" means one or more mechanisms, such as remote call forwarding or route indexing, by which a local exchange customer at a particular location may change the customer's local service provider without any change in the customer's telephone number, while experiencing as little loss of functionality as is feasible using available technology.

"Local exchange carrier" means any person that was the incumbent and historical rate-regulated wireline provider of local exchange services or any successor to such person that provides local exchange services under an authorized certificate of public convenience and necessity within a specific geographic area described in maps filed with and approved by the board as of September 30, 1992.

"Local utility" means any entity that provides wireline local exchange services, including local exchange carriers, competitive local exchange service providers, and other non-rate-regulated wireline providers of local exchange services.

"Mediation" means the process in which a neutral party assists the parties in reaching their own settlement but does not have the authority to make a binding decision.

"Provider number portability" means the capability of a local exchange customer to change the customer's local service provider at the customer's same location without any change in the customer's telephone number, while preserving the full range of functionality that the customer currently experiences. Provider number portability includes the equal availability of information concerning the local service provider serving a telephone number to all carriers and the ability to deliver traffic directly to that provider without having first to route traffic to the local exchange carrier or otherwise use the services, facilities, or capabilities of the local exchange carrier to complete the call and without the dialing of additional digits or access codes.

"Total service long-run incremental cost" for a service, or group of services, is equal to the utility's total cost of producing all of its services including the service or group of services in question, minus the utility's total cost of producing all of its services excluding the service or group of services in question.

199—38.2(476) Number portability.

38.2(1) *Interim number portability.*

a. Requests. Each local exchange carrier shall make interim number portability available upon bona fide request of a local utility. Once a local utility uses a local exchange carrier's interim number portability, it must, in turn, make interim number portability available upon approval of its tariff to all other local utilities upon bona fide request.

b. Terms and conditions. After interim number portability has been requested pursuant to paragraph "*a*," a local exchange carrier with no tariff to provide the service shall file a tariff, within 60 days of the request, making interim number portability available. The local exchange carrier's tariff will make interim number portability available to all local utilities on the same terms and conditions.

Each local utility using the local exchange carrier's interim number portability must file tariffs within 60 days of receiving the service. For telephone numbers initially routed to the local utility, the tariffs must make interim number portability available to all other local utilities on the same terms and conditions. A local utility's tariff for interim number portability will be presumed to be reasonable and nondiscriminatory if the terms and conditions are the same as those contained in the local exchange carrier's tariff for the same geographic area and the prices charged for interim number portability are not greater than those charged by the local exchange carrier. Otherwise, the tariff filing will require cost support information.

c. Technical features. Each local utility offering interim number portability shall make good faith efforts to ensure that the calls routed or forwarded to other local utilities meet industry standards and retain the technical characteristics and functionality of calls delivered to its own customers. Calls routed or forwarded to other local utilities shall experience as little loss of functionality as is feasible using available technology.

d. Cost recovery mechanism. To recover the costs of interim number portability, a local exchange carrier must make a sufficient showing to justify inclusion of the interim number portability charge in its tariff. The amount of the charge may be adjusted to reflect the indirect benefits of interim number portability to all local service customers. The recovery of both recurring and nonrecurring costs of interim number portability must be in the form of a one-time charge to the requesting local utility for each customer retaining its number.

e. Terminating access charges. When an interim number portability arrangement is being used to route or forward a terminating intrastate long distance call to a customer's telephone number, the local utility routing or forwarding the call shall bill the interexchange carrier the access charge the local utility would bill if it provided local exchange service to the terminating number. The access charge revenue shall be divided as follows:

(1) The carrier common line charge shall flow through to the local utility that serves the customer; and

(2) The switching and transport charges shall be divided equally between the local utility that serves the customer and the local utility that routed or forwarded the call.

38.2(2) *Provider number portability.*

a. Trials. A local utility may petition the board at any time with a proposal to conduct a trial of a database architecture for provider number portability involving all local utilities in a local calling area. The petitioning local utility shall provide the board with information about the likely costs of conducting a trial, how and from whom these costs will be recovered, the proposed duration of the trial, and a complete description of what is intended to be learned from the trial, especially considering the trials already planned, underway, or complete in other areas of the country. The board will provide notice and an opportunity for a hearing to allow interested persons to provide information about the advisability of conducting a trial.

b. Requests. A local utility may petition the board at any time with a proposal that all local utilities in a local calling area implement a database architecture for provider number portability that would furnish equivalent service quality and equal feature characteristics to all carriers. The petitioning local utility shall supply the board with sufficient information to establish that the proposed database architecture for provider number portability is economically and technically feasible. In particular, the petitioning local utility shall show how calls could continue to be handled reliably, how call setup times would be affected, how much the proposed database architecture would cost to install and operate, who would install and operate the database, and how the costs of installing and operating the database would be recovered. The filing must contain a reasonable and nondiscriminatory mechanism for the recovery of all recurring and nonrecurring costs of provider number portability. The board will provide notice and an opportunity for a hearing to allow others to provide information as to whether the proposed database architecture is economically and technically feasible.

199—38.3(476) Interconnection requirements. A local utility that originates local telecommunications traffic and desires to terminate that traffic on the network of another local utility may choose the point(s) of interconnection between the two networks for the exchange of that originating local telecommunications traffic at any technically feasible point within the terminating carrier's network. Interconnection must be equal in quality to that provided by the local utility to itself, any affiliate, or any other party to which the local utility provides interconnection. Interconnection must be on rates, terms, and conditions that are just, reasonable, and nondiscriminatory.

199—38.4(476) Unbundled facilities, services, features, functions, and capabilities.

38.4(1) *Initial tariff filings.*

a. Filing schedule. Each local exchange carrier shall file initial tariffs implementing unbundling for the facilities enumerated in paragraph *"b"* within 90 days of the board's final order adopting these rules, except for local exchange carriers with fewer than 75,000 access lines which must file initial unbundling tariffs on or before July 1, 1997.

b. Initial list of unbundled essential facilities. Each local exchange carrier's initial tariff filing shall, at a minimum, unbundle the following essential facilities, services, features, functions, and capabilities: loops, ports, signaling links, signal transfer points, facilities to interconnect unbundled links at the central office, interoffice transmission facilities, directory listings in white pages, directory listings in yellow pages, listings in the directory assistance database, inbound operator services including busy line verification and call interrupt, interconnection to the 911 system, and interconnection to the tandem switch for routing to other carriers.

38.4(2) *Subsequent requests for unbundled facilities.* Except as allowed in subrule 38.4(3), requests to unbundle facilities, services, features, functions, and capabilities shall be processed as follows:

a. Subsequent to the initial tariff filings provided for in subrule 38.4(1) above, a competitive local exchange service provider may make a bona fide request of a local exchange carrier to make additional unbundled essential facilities available. After receiving a request for additional unbundled essential facilities, the local exchange carrier shall respond within 30 days of the request by either agreeing to the request or by denying the request. If the local exchange carrier agrees to fulfill the request, it shall file a tariff unbundling the essential facility within 60 days of the initial request.

b. If the local exchange carrier denies the request, a competitive local exchange service provider may petition the board to classify the requested facility as essential, as defined by Iowa Code section 476.100(2), and to require the local exchange carrier to make it available on an unbundled basis by filing a tariff. In such a petition, the competitive local exchange service provider shall provide information to the board showing how the requested facility meets the definition of essential facility found in Iowa Code section 476.100(2).

The petitioning party under this subrule may state a preference for proceeding by rule making or contested case, but the board will select the process to be used.

38.4(3) *Alternative procedures.* As an alternative to the procedures in subrule 38.4(2), a competitive local exchange service provider may elect the negotiation, mediation, and arbitration procedures available under 47 U.S.C. Section 252, by notifying the local exchange carrier and the board in writing at the time additional unbundled facilities are requested.

38.4(4) *Reclassifying essential facilities.* A local exchange carrier may, at any time, petition the board with a request that a facility classified as essential, either by the terms of subrule 38.4(1) or pursuant to a subsequent request of a competitive local exchange service provider, be removed from that classification and no longer be required to be provided on an unbundled basis. With its petition, the local exchange carrier shall provide information to the board showing why the facility no longer meets the definition of essential found in Iowa Code section 476.100(2). The board will determine the procedure to be used in reviewing the petition.

38.4(5) *Interconnection to essential facilities.*

a. Nondiscriminatory access. All competitive local exchange service providers shall have access to a local exchange carrier's unbundled facilities on the same nondiscriminatory terms and conditions. Such terms and conditions shall be specified in the local exchange carrier's tariff for unbundled facilities.

b. Reasonable equal access. The terms and conditions under which competitive local exchange service providers shall be able to interconnect with a local exchange carrier's unbundled facilities shall be technically and economically equivalent to those under which the local exchange carrier provides those facilities to itself or its affiliates. If it believes such terms and conditions are not technically or economically feasible, the local exchange carrier may petition the board for a waiver of this provision.

199—38.5(476) Cost standards.

38.5(1) *Existing standards.* In addition to the standards in this rule, the cost support requirements of rules 199—22.12(476) and 22.13(476) shall apply to all of a local exchange carrier's rate proceedings prior to the implementation of price regulation.

38.5(2) *Incremental cost standard.* In general, each local exchange carrier shall price each of its services above the total service long-run incremental cost of providing each service. However, this incremental cost standard shall not be construed to require any increase in the rate for any service prior to the implementation of price regulation, nor to require any price increase that is greater than allowed under a price regulation plan or under Iowa Code section 476.97(11).

38.5(3) *Imputation test.* In general, prices for each retail service offered by a local exchange carrier should equal or exceed the sum of an allocation of the tariffed prices for all unbundled essential facilities used to provide the service and the incremental costs of all other facilities or services that are components of the retail service. However, this imputation test shall not be construed to require any increase in the rate for any service prior to the implementation of price regulation, nor to require any price increase that is greater than allowed under a price regulation plan or under Iowa Code section 476.97(11).

38.5(4) *Reporting requirements.* A local exchange carrier shall provide current information to the board showing that the conditions of the incremental cost standard described in subrule 38.5(2) and the imputation test described in subrule 38.5(3) continue to be met whenever it proposes to lower the price of a retail service, it proposes the initial price of an unbundled essential facility, it proposes to raise the price of an unbundled essential facility, or it offers a new service.

38.5(5) *Competitive local exchange service providers.* Cost support will generally not be required for the tariff filings from competitive local exchange service providers, with the exception of 38.2(1)"*b.*"

199—38.6(476) Compensation for termination of telecommunications services.

38.6(1) *Mutual exchange of traffic.* Until the board approves monetary compensation and until tariffs for the compensation are in effect, each local utility shall terminate local and extended area service calls on a mutual exchange of traffic basis, at no charge to the originating provider. As an alternative, a local utility may elect the negotiation, mediation, and arbitration procedures available under 47 U.S.C. Section 252, by notifying the other affected local utility and the board in writing.

38.6(2) *Requests to end mutual exchange of traffic.* A facilities-based local utility may file a cost-based tariff for monetary compensation for terminating local access service, provided its filing includes a showing that in six consecutive calendar months of mutual traffic exchange between it and another facilities-based local utility the total terminating to originating traffic for the entire six-month period was unbalanced by a ratio of at least 55 percent terminating to 45 percent originating. The tariff filing must include appropriate cost support information. The terms and conditions listed in the tariff shall be applicable to all local utilities operating within the local utility's service territory or within a service territory with extended area service to the local utility's service territory. On the date the tariff becomes effective, compensation on a mutual exchange basis will end.

38.6(3) *Monetary compensation requirements for other utilities.* Within 60 days of board approval of a tariff for monetary compensation for terminating local access service, each other local utility operating within the service territory of the local utility or within a service territory with extended area service to the local utility must file a tariff for monetary compensation for terminating local access service. The tariff filing must include sufficient evidentiary support to allow the board to determine that the compensation will be reciprocal. The terms and conditions listed in the tariff shall be applicable to all local utilities operating within the local utility's service territory or within a service territory with extended area service to the local utility's service territory. Until a local utility has an approved tariff in effect, it must charge the rates for terminating local access service in the approved tariff of the local utility with which it exchanges traffic.

38.6(4) *Terminating access charge complaints.* No local utility shall deliver traffic to another local utility as local service or extended area service terminating traffic, to which mutual exchange or monetary compensation would apply under this rule, if the terminating traffic is long distance or some other type of traffic for which terminating switched access charges would otherwise have been payable. Any local utility may bring a complaint to the board if another local utility has violated this requirement or taken insufficient measures to determine whether switched access charges would otherwise have been payable. The board may order appropriate refunds with interest of compensation received by a local utility in violation of this rule.

199—38.7(476) Mediation and arbitration. This rule shall apply to all local utilities, except for rural telephone companies as defined in Section 3(47) of the Telecommunications Act of 1996. The board may make all or part of this rule applicable to a rural telephone company or companies in proceedings relating to Section 251(f) of the Act.

38.7(1) *Voluntary negotiations.*

a. Initiation of negotiations. A telecommunications carrier initiates the negotiation process by requesting interconnection, services, or network elements as defined in the Act from an incumbent local utility pursuant to Section 252(a)(1) of the Act. The day the request is received by the local utility is day one of the schedule set for resolution of all issues. Within five days of receipt of the request, the local utility shall file ten copies of the request and a statement of the date the request was received with the board.

b. Duty to negotiate. The requesting telecommunications carrier and the local utility have the obligation to negotiate in good faith the terms and conditions for the provision of the requested interconnection, services, or network elements. Good faith negotiations require that the parties meet and confer at reasonable times and places, remain open to the arguments and proposals, and work toward the goal of reaching agreement on terms and conditions for the requested interconnections and services. Refusal of any party to give information about its costs or other pertinent data upon request of another party may be considered by the board as a failure to negotiate in good faith.

38.7(2) *Mediation.*

a. Initiation of mediation. At any time during the negotiations, any party to the negotiations may request mediation. The request shall be made in writing to the board and copies of the mediation request shall be simultaneously served on the other parties. Alternatively, parties may jointly submit their request in writing to the board. A request for mediation shall contain a brief statement of the nature of the dispute and the names, addresses, telephone and fax numbers of the parties or their representatives.

b. Appointment of mediator. The board may appoint any competent, impartial person of character and ability to act as mediator. The board will immediately convene a meeting of the parties to discuss appointment of a mutually acceptable mediator.

c. Role and duties of the mediator. The role of the mediator is to encourage voluntary settlement by the parties. The mediator may not compel a settlement. The mediator shall schedule meetings of the parties, direct the parties to prepare for those meetings, hold private caucuses with each party in an attempt to bring disputants closer together, attempt to achieve a resolution, and assist the parties in preparing a written agreement.

The mediator does not provide legal advice to the parties, nor are any of the mediator's statements as to law and policy binding unless later adopted by the board. The mediation process will be treated as confidential to the extent permitted by law. No stenographic record will be kept.

After completion of at least one mediation session, the mediator may terminate the mediation process if it appears that the likelihood of agreement is remote or if a party is not participating in good faith, or for other good cause.

d. Parties. Only parties to the negotiations will be permitted to participate as parties to the mediation.

e. Assessment of costs. The cost of mediation shall be shared equally by the parties and paid directly to the mediator.

38.7(3) *Arbitration.*

a. Initiation of arbitration. Any party to the negotiation may petition the board to arbitrate all open issues. The petition requesting arbitration must be filed during the period from the 135th day through the 160th day after the date on which the request for negotiation was received by the local utility. Simultaneously with filing the petition with the board, the petitioning party shall provide a copy of the petition and accompanying documentation to the other parties.

b. Supporting documentation. On the same day of the filing of the request for arbitration, the petitioning party shall provide to the board the date upon which the request for negotiation for the interconnection, services, or network elements in dispute was made to the local utility, a list of unresolved issues, the position of each party on each of the unresolved issues, how the parties' positions meet or fail to meet the requirements of Section 251 of the Act or other regulations, any supporting documents for positions taken by the parties on unresolved issues including all relevant cost studies where prices are in dispute, whether a hearing is requested, a list of issues discussed and resolved prior to the petition for arbitration, any requests for confidentiality, and any other documents relevant to the dispute.

c. Response to the request for arbitration. A nonpetitioning party to the negotiation may respond to the petitioning party's position and provide additional information within 25 days after the petition for arbitration was received by the board.

d. Parties. Only parties to the negotiations will be permitted to participate as parties to the arbitration, unless the board consolidates proceedings. However, the office of consumer advocate will also be considered a party to the arbitration proceeding.

e. Assessment of costs. Costs shall be directly and equally assessed to the parties involved in the arbitration to the extent provided for by Iowa Code section 476.10.

f. Docketing of the arbitration request. Upon receipt of a timely and complete petition for arbitration, the board shall docket the request for consideration by the board.

g. Arbitration schedule and procedures. Within 15 days of the receipt of the petition for arbitration, the board will schedule a conference to be held within 40 days of receipt of the petition. The purpose of the conference is to plan an arbitration hearing date, clarify the issues to be resolved, identify additional information needed to reach a decision on the issues, schedule production of documents and other information, discuss or rule on any other procedural matters, and consider any other matters that will expedite the arbitration process.

h. Hearing. An arbitration hearing shall commence no later than 60 days following receipt of the petition for arbitration.

i. Consolidation. Nothing in these rules precludes consolidation of proceedings in order to reduce administrative burdens on local utilities, other parties to the proceedings, and the board.

j. Decision. Following the hearing, the board will issue its preliminary written decision on the unresolved issues. All exceptions to the decision must be filed by the parties within ten days of issuance of the preliminary decisions. All replies to exceptions shall be filed within five days of the filing of the exceptions. A final written decision regarding all issues offered in arbitration shall be issued by the board within the nine-month deadline in the Act.

38.7(4) *Board review of agreements.*

a. Filing of agreements. All interconnections agreements shall be filed with the board for approval within 15 days after the issuance of a final decision on the arbitrated issues, in the case of arbitrated agreements or, in the case of negotiated agreements, after the execution of the agreement.

b. Comments. Within ten days following the filing of the arbitrated agreement or 30 days after a negotiated agreement is filed for board review, the parties involved in the negotiations or arbitration, and any other interested party, may submit written comments to the board supporting either approval or rejection of the agreement. If the board does not approve or reject the agreement within 90 days after a negotiated agreement or within 30 days after submission by the parties of an agreement adopted by arbitration, the agreement shall be deemed approved.

c. Resubmission. If the board rejects a voluntary agreement or arbitration award, the parties may resubmit the agreement for board approval within 30 days following such rejection if the parties have remedied the deficiencies set forth in the board's findings.

199—38.8(476) Universal service. Rescinded IAB 12/31/97, effective 1/1/98.

[Filed 4/5/96, Notice 9/27/95—published 4/24/96, effective 5/29/96]
[Filed emergency 8/2/96—published 8/28/96, effective 8/2/96]
[Filed 12/6/96, Notices 9/27/95, 4/24/96—published 1/1/97, effective 2/5/97]
[Filed 7/25/97, Notice 5/21/97—published 8/13/97, effective 9/17/97]
[Filed emergency 12/11/97 after Notice 10/8/97—published 12/31/97, effective 1/1/98]

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996.	)))))	Docket No. 000075-TP

OFFICIAL RECOGNITION LIST OF AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC., TCG OF SOUTH FLORIDA, MEDIONE FLORIDA TELECOMMUNICATIONS, INC. AND ALLEGIANCE TELECOM OF FLORIDA, INC.

AT&T Communications of the Southern States, In., TCG of South Florida, MediaOne Florida Telecommunications, Inc. and Allegiance Telecom of Florida, Inc., request official recognition of the following:

Florida Public Service Commission Orders

Order No. 21815 issued September 5, 1989 in Docket No. 880423-TP.

Order No. 23183 issued July 13, 1990 in Docket No. 880423-TP.

Order No. PSC-96-1579-FOF-TP issued December 31, 1996 in Docket Nos. 960833-TP, 960846-TP and 960916-TP.

Order No. PSC-97-0064-FOF-TP issued January 17, 1997 in Docket Nos. 960847-TP and 960980-TP.

Order No. PSC-97-0294-FOF-TP issued March 14, 1997 in Docket No. 961230-TP.

FCC Orders

Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Universal Service Order, 12 FCC Rcd 8776, rel. November 9, 1996.

Court Decisions

Southwestern Bell Tel. Co. v. Brooks Fiber Communications, 2000 WL 1827576 (10th Cir. December 13, 2000).

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip -2

PARTY: BellSouth Telecommunications, Inc.

DESCRIPTION:

1. BellSouth's Responses to Staff's First Set of Interrogatories and First Request for Production of Documents.

PROFFERING PARTY: STAFF

I.D. # Stip-2

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 000075-TP EXHIBIT NO. 2
COMPANY/
WITNESS. FPSC Staff
DATE: 3-28-01

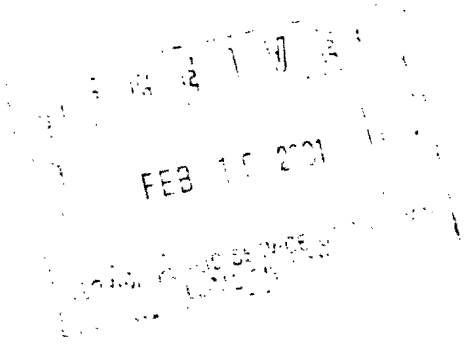
Legal Department

E. EARL EDENFIELD, JR.
General Attorney

BellSouth Telecommunications, Inc.
150 South Monroe Street
Room 400
Tallahassee, Florida 32301
(404) 335-0763

February 19, 2001

VIA HAND DELIVERY



Felicia Banks
Staff Counsel
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 000075-TP (Generic ISP)

Dear Ms. Banks:

Enclosed is BellSouth Telecommunications, Inc.'s Responses to Commission Staff's First Request for Production of Documents and First Set of Interrogatories.

Sincerely,

E. Earl Edenfield, Jr.

Enclosures

cc: Marshall M. Criser III
R. Douglas Lackey
Nancy B. White

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section251 of the Telecommunications Act of 1996	)	Docket No. 000075-TP
	)	Filed: February 19, 2001

BELLSOUTH TELECOMMUNICATIONS, INC.'S RESPONSES TO COMMISSION STAFF'S FIRST REQUEST FOR PRODUCTION OF DOCUMENTS AND FIRST SET OF INTERROGATORIES

BellSouth Telecommunications, Inc., ("BellSouth") responds to Commission Staff's First Request for Production of Documents and First Set of Interrogatories, both dated January 30, 2001, as follows:

RESPONSE TO REQUESTS FOR PRODUCTION OF DOCUMENTS

REQUEST NO. 1: Please provide any and all documents in your possession or under your control that support your response to staff interrogatory 1, including, but not limited to, requests sent to ALECs that ask for ISP numbers.

RESPONSE: Requests to ALECs for ISP numbers were expressed during conference calls. The only document memorializing such a conversation is considered proprietary and will be provided subject to a Notice of Intent.

REQUEST NO. 2: Please provide any and all documents in your possession or under your control that support your response to staff interrogatory 9.

RESPONSE: Documents responsive to this request are being provided.

REQUEST NO. 3: Please provide any and all documents in your possession or under your control supporting your response to staff interrogatory 23.

RESPONSE: There are no documents responsive to this request. However, please refer to Section II(2) of Dr. Taylor's testimony (pp. 18-25).

REQUEST NO. 4: Please provide any and all documents in your possession or under your control that support your response to staff interrogatory 24.

RESPONSE: There are no documents responsive to this request.

REQUEST NO. 5: Please provide any and all documents that support your response to staff interrogatory 28 (i).

RESPONSE: There are no documents responsive to this request.

REQUEST NO. 6: Please provide a copy of any and all state orders referred to in the rebuttal testimony of William Taylor.

RESPONSE: Documents responsive to this request are being provided.

REQUEST NO. 7: Please provide a copy of any and all reports, other than those produced by the FCC, that are referred to in the rebuttal testimony of BellSouth's witnesses, to the extent they have not been provided in the testimony and exhibits.

RESPONSE: There are no documents responsive to this request.

ANSWERS TO INTERROGATORIES

See attached.

Respectfully submitted this 19th day of February 2001.

BELLSOUTH TELECOMMUNICATIONS, INC.

Nancy B. White (by)

NANCY B. WHITE
c/o Nancy H. Sims
150 So. Monroe Street, Suite 400
Tallahassee, FL 32301
(305) 347-5558

2

3

R. DOUGLAS LACKEY
E. EARL EDENFIELD JR.
Suite 4300
675 W. Peachtree St., NE
Atlanta, GA 30375
(404) 335-0763

246201

CERTIFICATE OF SERVICE
Docket No. 000075-TP

I HEREBY CERTIFY that a true and correct copy of the foregoing was served via U.S. Mail and (*) Hand Delivery this 19th day of February, 2001 to the following:

Felicia Banks (*)
Staff Counsel
Florida Public Service Commission
Division of Legal Services
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Michael A. Gross
Florida Cable Telecommunications Assoc., Inc.
246 E. 6th Avenue, Suite 100
Tallahassee, FL 32303
Tel.: (850) 681-1990
Fax: (850) 681-9676
mgross@fcta.com

Kenneth A. Hoffman, Esq. (+)
Martin P. McDonnell (+)
Rutledge, Ecenia, Purnell & Hoffman
Post Office Box 551
Tallahassee, FL 32302-0551
Tel.: (850) 681-6788
Fax: (850) 681-6515
Represents US LEC
Represents Level 3
Represents Allegiance
Represents TCG
Represents MediaOne

Elizabeth Howland, Esq.
Attn: Regulatory & Interconnection
Allegiance Telecom, Inc.
1950 Stemmons Freeway
Suite 3026
Dallas, TX 75207

Morton Posner, Esq.
Regulatory Counsel
Allegiance Telecom
1150 Connecticut Avenue, N.W.
Suite 205
Washington, DC 20036

Charles J. Rehwinkel
Susan Masterton
Sprint-Florida, Inc.
Post Office Box 2214
MS: FLTLHO0107
Tallahassee, FL 32316-2214

Peter M. Dunbar
Karen M. Camechis
Pennington, Moore, Wilkinson, Bell & Dunbar, P.A.
Post Office Box (32302)
215 South Monroe Street, 2nd Floor
Tallahassee, FL 32301
Tel. No. (850) 222-3533
Fax. No. (850) 222-2126
pete@penningtonlawfirm.com
karen@penningtonlawfirm.com
Represents Time Warner

Mark Buechele
Legal Counsel
Supra Telecom
1311 Executive Center Drive
Suite 200
Tallahassee, FL 32301
Tel. No. (850) 402-0510
Fax. No. (850) 402-0522

Wanda Montano
US LEC of Florida, Inc.
401 North Tyron Street
Charlotte, North Carolina 28202
Tel. No. (704) 319-1074
Fax. No. (704) 310-0069

Charles J. Pellegrini
WIGGINS & VILLACORTA, P.A.
2145 Delta Boulevard
Suite 200
Post Office Drawer 1657
Tallahassee, FL 32302
Tel. No. (850) 358-6007
Fax. No. (850) 358-6008
Represents Focal

Norman H. Horton, Jr.
Messer, Caparello & Self, P.A.
215 South Monroe Street
Suite 701
Tallahassee, FL 32301-1876
Tel. No. (850) 222-0720
Fax. No. (850) 224-4359

James C. Falvey, Esq.
e.spire Communications, Inc.
133 National Business Parkway
Suite 200
Annapolis Junction, Maryland 20701
Tel. No. (301) 361-4298
Fax. No. (301) 361-4277

Donna Canzano McNulty
MCI WorldCom, Inc.
325 John Knox Road
The Atrium, Suite 105
Tallahassee, FL 32303
Tel. No. (850) 422-1254
Fax. No. (850) 422-2586

Brian Sulmonetti
MCI WorldCom, Inc.
6 Concourse Parkway, Suite 3200
Atlanta, GA 30328
Tel. No.: (770) 284-5493
Fax. No.: (770) 284-5488

Kimberly Caswell
GTE Florida Incorporated
P.O. Box 110, FLTC0007
Tampa, FL 33601-0110

Scott A. Sapperstein
Senior Policy Counsel
Intermedia Communications, Inc.
3625 Queen Palm Drive
Tampa, FL 33619
Tel. No. (813) 829-4093
Fax. No. (813) 829-4923

Marsha Rule (+)
AT&T Communications of the
Southern States, Inc.
101 North Monroe Street
Suite 700
Tallahassee, FL 32301
Tel. No. (850) 425-6364

Jon C. Moyle, Esq.
Cathy M. Sellers, Esq.
Moyle, Flanigan, Katz, Kolins,
Raymond & Sheehan, P.A.
The Perkins House
118 North Gadsden Street
Tallahassee, Florida 32301
jmoylejr@moylelaw.com
Represents Global NAPs

Mr. Herb Bornack
Orlando Telephone Company
4558 S.W. 35th Street
Suite 100
Orlando, FL 32811

Robert Scheffel Wright
Landers & Parsons, P.A.
310 West College Avenue (32301)
Post Office Box 271
Tallahassee, FL 32302
Tel. No. (904) 681-0311
Fax. No. (904) 224-5595
Represents Cox Communications

Jill N. Butler
Vice President of Regulatory Affairs
Cox Communications
4585 Village Avenue
Norfolk, VA 23502

Paul Rubey
Focal Communications Corporation
200 North LaSalle Street
Suite 1100
Chicago, Illinois 60601-1914
Tel. No. (312) 895-8491
Fax. No. (312) 895-8403
prebey@focal. Com

Joseph McGlothlin
Vicki Gordon Kaufman
McWhirter Reeves McGlothlin
Davidson Decker Kaufman, et al.
117 South Gadsden Street
Tallahassee, Florida 32301
Tel. No. (850) 222-2525
Fax. No. (850) 222-5606
Represents KMC & FCCA
Represents XO Communications

John McLaughlin
KMC Telecom, Inc.
1755 North Brown Road
Lawrenceville, Georgia 30043
Tel. No. (678) 985-6262
Fax. No. (678) 985-6213

Charles A. Hudak, Esq.
Ronald V. Jackson, Esq.
Gerry, Friend & Sapronov, LLP
Three Ravinia Drive, Suite 1450
Atlanta, Georgia 30346-2131
Tel. No. (770) 399-9500
Fax. No. (770) 395-0000
BroadBand Office Comm. Inc.

Michael R. Romano, Esq.
Level 3 Communications, LLC
1025 Eldorado Boulevard
Broomfield, CO 80021
Tel. No. (720) 888-7015
Fax. No. (720) 888-5134

Dana Shaffer
Vice President
XO Communications, Inc.
105 Molly Street, Suite 300
Nashville, Tennessee 37201-2315
Tel. No. (615) 777-7700
Fax. No. (615) 345-1564

MediaOne Florida Telecommunications
c/o Laura L. Gallagher, P.A.
101 East College Avenue
Suite 302
Tallahassee, FL 32301
Tel. No. (850) 224-2211
Fax. No. (850) 561-6311

E. Earl Edenfield, Jr. (jw)

(+) Signed Protective Agreement

BELLSOUTH TELECOMMUNICATIONS, INC.

FPSC DKT NO 000075-TP

STAFF'S 1ST REQUEST FOR PRODUCTION OF DOCUMENTS

POD NO. 2

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued November 22, 1999 Decided March 24, 2000

No. 99-1094

Bell Atlantic Telephone Companies,
Petitioner

v.

Federal Communications Commission and
United States of America,
Respondents

Telecommunications Resellers Association, et al.,
Intervenors

Consolidated with
99-1095, 99-1097, 99-1106, 99-1126,
99-1134, 99-1136, 99-1145,

On Petitions for Review of a Declaratory Ruling of the
Federal Communications Commission

Mark L. Evans and *Darryl M. Bradford* argued the causes for petitioners. With them on the briefs were *Thomas F. O'Neil, III, Adam H. Charnes, Mark B. Ehrlich, Donald B. Verrilli, Jr., Jodie L. Kelley, John J. Hamill, Emily M. Williams, Theodore Case Whitehouse, Thomas Jones, Albert H. Kramer, Andrew D. Lipman, Richard M. Rindler, Robert M. McDowell, Robert D. Vandiver, Cynthia Brown Miller, Charles C. Hunter, Catherine M. Hannan, Michael D. Hays, Laura H. Phillips, J. G. Harrington, William P. Barr, M. Edward Whelan, III, Michael K. Kellogg, Michael E. Glover, Robert B. McKenna, William T. Lake, John H. Harwood, II, Jonathan J. Frankel, Robert Sutherland, William B. Barfield, Theodore A. Livingston* and *John E. Muench. Maureen F. Del Duca, Lynn R. Charytan, Gail L. Polivy, John F. Raposa* and *Lawrence W. Katz* entered appearances.

Christopher J. Wright, General Counsel, Federal Communications Commission, argued the cause for respondents. With him on the brief were *Daniel M. Armstrong*, Associate General Counsel, and *John E. Ingle, Laurence N. Bourne* and *Lisa S. Gelb*, Counsel. *Catherine G. O'Sullivan* and *Nancy C. Garrison*, Attorneys, U.S. Department of Justice, entered appearances.

David L. Lawson argued the cause for intervenors in opposition to the LEC petitioners. With him on the brief were *Mark C. Rosenblum, David W. Carpenter, James P. Young, Emily M. Wiliams, Andrew D. Lipman, Richard M. Rindler, Robert D. Vandiver, Cynthia Brown Miller, Theodore Case Whitehouse, Thomas Jones, John D. Seiver, Charles C. Hunter, Catherine M. Hannan, Carol Ann Bischoff* and *Robert M. McDowell.*

William P. Barr, M. Edward Whelan, Michael E. Glover, Mark L. Evans, Michael K. Kellogg, Mark D. Roellig, Dan Poole, Robert B. McKenna, William T. Lake, John H. Harwood, II, Jonathan J. Frankel, Robert Sutherland, William B. Barfield, Theodore A. Livingston and *John E. Muench* were on the brief for the Local Exchange Carrier intervenors.

Robert J. Aamoth, Ellen S. Levine, Charles D. Gray, James B. Ramsay, Jonathan J. Nadler, David A. Gross,

Curtis T. White, Edward Hayes, Jr., and *David M. Janas* entered appearances for intervenors

Before: Williams, Sentelle and Randolph, *Circuit Judges.*

Opinion for the Court filed by *Circuit Judge* Williams.

Williams, *Circuit Judge*: The Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, 47 U.S.C. §§ 151-714, requires local exchange carriers ("LECs") to "establish reciprocal compensation arrangements for the transport and termination of telecommunications." *Id.* § 251(b)(5). When LECs collaborate to complete a call, this provision ensures compensation both for the originating LEC, which receives payment from the end-user, and for the recipient's LEC. By regulation the Commission has limited the scope of the reciprocal compensation requirement to "local telecommunications traffic." 47 CFR § 51.701(a). In the ruling under review, it considered whether calls to internet service providers ("ISPs") within the caller's local calling area are themselves "local." In doing so it applied its so-called "end-to-end" analysis, noting that the communication characteristically will ultimately (if indirectly) extend beyond the ISP to websites out-of-state and around the world. Accordingly it found the calls non-local. See *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Intercarrier Compensation for ISP-Bound Traffic*, 14 FCC Rcd 3689, 3690 (¶ 1) (1999) ("FCC Ruling").

Having thus taken the calls to ISPs out of § 251(b)(5)'s provision for "reciprocal compensation" (as it interpreted it), the Commission could nonetheless itself have set rates for such calls, but it elected not to. In a Notice of Proposed Rulemaking, CC Docket 99-68, the Commission tentatively concluded that "a negotiation process, driven by market forces, is more likely to lead to efficient outcomes than are rates set by regulation," FCC Ruling, 14 FCC Rcd at 3707 (¶ 29), but for the nonce it left open the matter of implementing a system of federal controls. It observed that in the

meantime parties may voluntarily include reciprocal compensation provisions in their interconnection agreements, and that state commissions, which have authority to arbitrate disputes over such agreements, can construe the agreements as requiring such compensation; indeed, even when the agreements of interconnecting LECs include no linguistic hook for such a requirement, the commissions can find that reciprocal compensation is appropriate. FCC Ruling, 14 FCC Rcd at 3703-05 (¶ ¶ 24-25); see § 251(b)(1) (establishing such authority). "[A]ny such arbitration," it added, "must be consistent with governing federal law." FCC Ruling, 14 FCC Rcd at 3705 (¶ 25).

This outcome left at least two unhappy groups. One, led by Bell Atlantic, consists of incumbent LECs (the "incumbents"). Quite content with the Commission's finding of § 251(b)(5)'s inapplicability, the incumbents objected to its conclusion that in the absence of federal regulation state commissions have the authority to impose reciprocal compensation. Although the Commission's new rulemaking on the subject may eventuate in a rule that preempts the states' authority, the incumbents object to being left at the mercy of state commissions until that (hypothetical) time, arguing that the commissions have mandated exorbitant compensation. In particular, the incumbents, who are paid a flat monthly fee, have generally been forced to provide compensation for internet calls on a per-minute basis. Given the average length of such calls the cost can be substantial, and since ISPs do not make outgoing calls, this compensation is hardly "reciprocal."

Another group, led by MCI WorldCom, consists of firms that are seeking to compete with the incumbent LECs and which provide local exchange telecommunications services to ISPs (the "competitors"). These firms, which stand to receive reciprocal compensation on ISP-bound calls, petitioned for review with the complaint that the Commission erred in finding that the calls weren't covered by § 251(b)(5).

The end-to-end analysis applied by the Commission here is one that it has traditionally used to determine whether a call is within its interstate *jurisdiction*. Here it used the analysis for quite a different purpose, without explaining why such an extension made sense in terms of the statute or the Commis-

sion's own regulations. Because of this gap, we vacate the ruling and remand the case for want of reasoned decision-making.

* * *

In February 1996 Congress passed the Telecommunications Act of 1996 (the "1996 Act" or the "Act"), stating an intent to open local telephone markets to competition. See H.R. Conf. Rep. No. 104-458, at 113 (1996). Whereas before local exchange carriers generally had state-licensed monopolies in each local service area, the 1996 Act set out to ensure that "[s]tates may no longer enforce laws that impede[ ] competition," and subjected incumbent LECs "to a host of duties intended to facilitate market entry." *AT&T Corp. v. Iowa Utils. Bd.*, 119 S. Ct. 721, 726 (1999).

Among the duties of incumbent LECs is to "provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network ... for the transmission and routing of telephone exchange service and exchange access." 47 U.S.C. § 251(c)(2). ("Telephone exchange service" and "exchange access" are words of art to which we shall later return.) Competitor LECs have sprung into being as a result, and their customers call, and receive calls from, customers of the incumbents.

We have already noted that § 251(b)(5) of the Act establishes the duty among local exchange carriers "to establish reciprocal compensation arrangements for the transport and termination of telecommunications." 47 U.S.C. § 251(b)(5). Thus, when a customer of LEC A calls a customer of LEC B, LEC A must pay LEC B for completing the call, a cost usually paid on a per-minute basis. Although § 251(b)(5) purports to extend reciprocal compensation to all "telecommunications," the Commission has construed the reciprocal compensation requirement as limited to local traffic. See 47 CFR § 51.701(a) ("The provisions of this subpart apply to reciprocal compensation for transport and termination of local telecommunications traffic between LECs and other telecom-

munications carriers."). LECs that originate or terminate long-distance calls continue to be compensated with "access charges," as they were before the 1996 Act. Unlike reciprocal compensation, these access charges are not paid by the originating LEC. Instead, the long-distance carrier itself pays both the LEC that originates the call and links the caller to the long distance network, and the LEC that terminates the call. See *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 11 FCC Rcd 15499, 16013 (¶ 1034) (1996) ("*Local Competition Order*").

The present case took the Commission beyond these traditional telephone service boundaries. The internet is "an international network of interconnected computers that enables millions of people to communicate with one another in 'cyberspace' and to access vast amounts of information from around the world." *Reno v. ACLU*, 521 U.S. 844, 844 (1997). Unlike the conventional "circuit-switched network," which uses a single end-to-end path for each transmission, the internet is a "distributed packet-switched network, which means that information is split up into small chunks or 'packets' that are individually routed through the most efficient path to their destination." *In the Matter of Federal-State Joint Board on Universal Service*, 13 FCC Rcd 11501, 11532 (¶ 64) (1998) ("*Universal Service Report*"). ISPs are entities that allow their customers access to the internet. Such a customer, an "end user" of the telephone system, will use a computer and modem to place a call to the ISP server in his local calling area. He will usually pay a flat monthly fee to the ISP (above the flat fee already paid to his LEC for use of the local exchange network). The ISP "typically purchases business lines from a LEC, for which it pays a flat monthly fee that allows unlimited incoming calls." FCC Ruling, 14 FCC Rcd at 3691 (¶ 4).

In the ruling now under review, the Commission concluded that § 251(b)(5) does not impose reciprocal compensation requirements on incumbent LECs for ISP-bound traffic. FCC Ruling, 14 FCC Rcd at 3690 (¶ 1). Faced with the question whether such traffic is "local" for purposes of its

regulation limiting § 251(b)(5) reciprocal compensation to local traffic, the Commission used the "end-to-end" analysis that it has traditionally used for jurisdictional purposes to determine whether particular traffic is interstate. Under this method, it has focused on "the end points of the communication and consistently has rejected attempts to divide communications at any intermediate points of switching or exchanges between carriers." FCC Ruling, 14 FCC Rcd at 3695 (¶ 10). We save for later an analysis of the various FCC precedents on which the Commission purported to rely in choosing this mode of analysis.

Before actually applying that analysis, the Commission brushed aside a statutory argument of the competitor LECs. They argued that ISP-bound traffic must be either "telephone exchange service," as defined in 47 U.S.C. § 153(47), or "exchange access," as defined in § 153(16).[1] It could not be the latter, they reasoned, because ISPs do not assess toll charges for the service (see *id.*, "the offering of access ... for the purpose of the origination or termination of telephone toll services"), and therefore it must be the former, for which reciprocal compensation is mandated. Here the Commission's answer was that it has consistently treated ISPs (and ESPs generally) as "users of access service," while treating them as end users merely for access charge purposes. FCC Ruling, 14 FCC Rcd at 3701 (¶ 17).

---

[1] "Telephone exchange service" is defined as:

> (A) service within a telephone exchange, or within a connected system of telephone exchanges within the same exchange area operated to furnish to subscribers intercommunicating service of the character ordinarily furnished by a single exchange, and which is covered by the exchange service charge, or (B) comparable service provided through a system of switches, transmission equipment, or other facilities (or combination thereof) by which a subscriber can originate and terminate a telecommunications service.

47 U.S.C. § 153(47). "Exchange access" is defined as:

> the offering of access to telephone exchange services or facilities for the purpose of the origination or termination of telephone toll services.

Id. § 153(16).

Having decided to use the "end-to-end" method, the Commission considered whether ISP-bound traffic is, under this method, in fact interstate. In a conventional "circuit-switched network," the jurisdictional analysis is straightforward: a call is intrastate if, and only if, it originates and terminates in the same state. In a "packet-switched network," the analysis is not so simple, as "[a]n Internet communication does not necessarily have a point of 'termination' in the traditional sense." FCC Ruling, 14 FCC Rcd at 3701-02 (¶ 18). In a single session an end user may communicate with multiple destination points, either sequentially or simultaneously. Although these destinations are sometimes intrastate, the Commission concluded that "a substantial portion of Internet traffic involves accessing interstate or foreign websites." *Id.* Thus reciprocal compensation was not due, and the issue of compensation between the two local LECs was left initially to the LECs involved, subject to state commissions' power to order compensation in the "arbitration" proceedings, and, of course to whatever may follow from the Commission's new rulemaking on its own possible ratesetting.

* * *

The issue at the heart of this case is whether a call to an ISP is local or long-distance. Neither category fits clearly. The Commission has described local calls, on the one hand, as those in which LECs collaborate to complete a call and are compensated for their respective roles in completing the call, and long-distance calls, on the other, as those in which the LECs collaborate with a long-distance carrier, which itself charges the end-user and pays out compensation to the LECs. See *Local Competition Order*, 11 FCC Rcd at 16013 (¶ 1034) (1996).

Calls to ISPs are not quite local, because there is some communication taking place between the ISP and out-of-state websites. But they are not quite long-distance, because the subsequent communication is not really a continuation, in the conventional sense, of the initial call to the ISP. The Commission's ruling rests squarely on its decision to employ an

end-to-end analysis for purposes of determining whether ISP-traffic is local. There is no dispute that the Commission has historically been justified in relying on this method when determining whether a particular communication is jurisdictionally interstate. But it has yet to provide an explanation why this inquiry is relevant to discerning whether a call to an ISP should fit within the local call model of two collaborating LECs or the long-distance model of a long-distance carrier collaborating with two LECs.

In fact, the extension of "end-to-end" analysis from jurisdictional purposes to the present context yields intuitively backwards results. Calls that are jurisdictionally *intra*state will be subject to the federal reciprocal compensation requirement, while calls that are *inter*state are not subject to federal regulation but instead are left to potential state regulation. The inconsistency is not necessarily fatal, since under the 1996 Act the Commission has jurisdiction to implement such provisions as § 251, even if they are within the traditional domain of the states. See *AT&T Corp.*, 119 S. Ct. at 730. But it reveals that arguments supporting use of the end-to-end analysis in the jurisdictional analysis are not obviously transferable to this context.

In attacking the Commission's classification of ISP-bound calls as non-local for purposes of reciprocal compensation, MCI WorldCom notes that under 47 CFR § 51.701(b)(1) "telecommunications traffic" is local if it "originates and terminates within a local service area." But, observes MCI WorldCom, the Commission failed to apply, or even to mention, its definition of "termination," namely "the switching of traffic that is subject to section 251(b)(5) at the terminating carrier's end office switch (or equivalent facility) and delivery of that traffic from that switch to the called party's premises." *Local Competition Order*, 11 FCC Rcd at 16015 (¶ 1040); 47 CFR § 51.701(d). Calls to ISPs appear to fit this definition: the traffic is switched by the LEC whose customer is the ISP and then delivered to the ISP, which is clearly the "called party."

In its ruling the Commission avoided this result by analyzing the communication on an end-to-end basis: "[T]he communications at issue here do not terminate at the ISP's local server ..., but continue to the ultimate destination or destinations." FCC Ruling, 14 FCC Rcd at 3697 (¶ 12). But the cases it relied on for using this analysis are not on point. Both involved a single continuous communication, originated by an end-user, switched by a long-distance communications carrier, and eventually delivered to its destination. One, *Teleconnect Co. v. Bell Telephone Co.*, 10 FCC Rcd 1626 (1995), *aff'd sub nom. Southwestern Bell Tel. Co. v. FCC*, 116 F.3d 593 (D.C. Cir. 1997) ("*Teleconnect*"), involved an 800 call to a long-distance carrier, which then routed the call to its intended recipient. The other, *In the Matter of Petition for Emergency Relief and Declaratory Ruling Filed by the BellSouth Corporation*, 7 FCC Rcd 1619 (1992), considered a voice mail service. Part of the service, the forwarding of the call from the intended recipient's location to the voice mail apparatus and service, occurred entirely within the subscriber's state, and thus looked local. Looking "end-to-end," however, the Commission refused to focus on this portion of the call but rather considered the service in its entirety (i.e., originating with the out-of-state caller leaving a message, or the subscriber calling from out-of-state to retrieve messages). *Id.* at 1621 (¶ 12).

ISPs, in contrast, are "information service providers," *Universal Service Report*, 13 FCC Rcd at 11532-33 (¶ 66), which upon receiving a call originate further communications to deliver and retrieve information to and from distant websites. The Commission acknowledged in a footnote that the cases it relied upon were distinguishable, but dismissed the problem out-of-hand: "Although the cited cases involve interexchange carriers rather than ISPs, and the Commission has observed that 'it is not clear that [information service providers] use the public switched network in a manner analogous to IXCs,' *Access Charge Reform Order*, 12 FCC Rcd at 16133, the Commission's observation does not affect the jurisdictional analysis." FCC Ruling, 14 FCC Rcd at 3697 n.36 (¶ 12). It is not clear how this helps the Commission. Even if the difference between ISPs and traditional long-distance carriers

is irrelevant for jurisdictional purposes, it appears relevant for purposes of reciprocal compensation. Although ISPs use telecommunications to provide information service, they are not themselves telecommunications providers (as are long-distance carriers).

In this regard an ISP appears, as MCI WorldCom argued, no different from many businesses, such as "pizza delivery firms, travel reservation agencies, credit card verification firms, or taxicab companies," which use a variety of communication services to provide their goods or services to their customers. Comments of WorldCom, Inc. at 7 (July 17, 1997). Of course, the ISP's origination of telecommunications as a result of the user's call is instantaneous (although perhaps no more so than a credit card verification system or a bank account information service). But this does not imply that the original communication does not "terminate" at the ISP. The Commission has not satisfactorily explained why an ISP is not, for purposes of reciprocal compensation, "simply a communications-intensive business end user selling a product to other consumer and business end-users." *Id.*

The Commission nevertheless argues that although the call from the ISP to an out-of-state website is information service for the end-user, it is telecommunications for the ISP, and thus the telecommunications cannot be said to "terminate" at the ISP. As the Commission states: "Even if, from the perspective of the *end user* as customer, the telecommunications portion of an Internet call 'terminates' at the ISP's server (and information service begins), the remaining portion of the call would continue to constitute telecommunications from the perspective of the *ISP* as customer." Commission's Br. at 41. Once again, however, the mere fact that the ISP originates further telecommunications does not imply that the original telecommunication does not "terminate" at the ISP. However sound the end-to-end analysis may be for jurisdictional purposes, the Commission has not explained why viewing these linked telecommunications as continuous works for purposes of reciprocal compensation.

Adding further confusion is a series of Commission rulings dealing with a class, enhanced service providers ("ESPs"), of which ISPs are a subclass. See FCC Ruling, 14 FCC Rcd at 3689 n.1 (¶ 1). ESPs, the precursors to the 1996 Act's information service providers, offer data processing services, linking customers and computers via the telephone network. See *MCI Telecommunications Corp. v. FCC*, 57 F.3d 1136, 1138 (D.C. Cir. 1995).[2] In its establishment of the access charge system for long-distance calls, the Commission in 1983 exempted ESPs from the access charge system, thus in effect treating them like end users rather than long-distance carriers. See *In the Matter of MTS & WATS Market Structure*, 97 F.C.C.2d 682, 711-15 (¶ 77-83) (1983). It reaffirmed this decision in 1991, explaining that it had "refrained from applying full access charges to ESPs out of concern that the industry has continued to be affected by a number of significant, potentially disruptive, and rapidly changing circumstances." *In the Matter of Part 69 of the Commission's Rules Relating to the Creation of Access Charge Subelements for Open Network Architecture*, 6 FCC Rcd 4524, 4534 (¶ 54) (1991). In 1997 it again preserved the status quo. *In the Matter of Access Charge Reform*, 12 FCC Rcd 15982 (1997) ("*Access Charge Reform Order*"). It justified the exemption in terms of the goals of the 1996 Act, saying that its purpose was to "preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services." *Id.* at 16133 (¶ 344) (quoting 47 U.S.C. § 230(b)(2)).

This classification of ESPs is something of an embarrassment to the Commission's present ruling. As MCI WorldCom notes, the Commission acknowledged in the *Access Charge Reform Order* that "given the evolution in [information service provider] technologies and markets since we first

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[2] The regulatory definition states that ESPs offer "services ... which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information." 47 CFR § 64.702(a).

established access charges in the early 1980s, it is not clear that [information service providers] use the public switched network in a manner analogous to IXCs [inter-exchange carriers]." 12 FCC Rcd at 16133 (¶ 345). It also referred to calls to information service providers as "local." *Id.* at 16132 (¶ 342 n.502). And when this aspect of the *Access Charge Reform Order* was challenged in the 8th Circuit, the Commission's briefwriters responded with a sharp differentiation between such calls and ordinary long-distance calls covered by the "end-to-end" analysis, and even used the analogy employed by MCI WorldCom here—that a call to an information service provider is really like a call to a local business that then uses the telephone to order wares to meet the need. Brief of FCC at 76, *Southwestern Bell v. FCC*, 153 F.3d 523 (8th Cir. 1998) (No. 97-2618). When accused of inconsistency in the present matter, the Commission flipped the argument on its head, arguing that its exemption of ESPs from access charges actually confirms "its understanding that ESPs in fact use interstate access service; otherwise, the exemption would not be necessary." FCC Ruling, 14 FCC Rcd at 3700 (¶ 16). This is not very compelling. Although, to be sure, the Commission used policy arguments to justify the "exemption," it also rested it on an acknowledgment of the real differences between long-distance calls and calls to information service providers. It is obscure why those have now dropped out of the picture.

Because the Commission has not supplied a real explanation for its decision to treat end-to-end analysis as controlling, *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); 5 U.S.C. § 706(2)(A), we must vacate the ruling and remand the case.

There is an independent ground requiring remand—the fit of the present rule within the governing statute. MCI WorldCom says that ISP-traffic is "telephone exchange service[ ]" as defined in 47 U.S.C. § 153(16), which it claims "is synonymous under the Act with the service used to make local phone calls," and emphatically not "exchange access" as defined in 47 U.S.C. § 153(47). Petitioner MCI WorldCom's Initial Br. at 22. In the only paragraph of the ruling in which the Commission addressed this issue, it merely stated that it

"consistently has characterized ESPs as 'users of access service' but has treated them as end users for pricing purposes." FCC Ruling, 14 FCC Rcd at 3701 (¶ 17). In a statutory world of "telephone exchange *service*" and "exchange *access*," which the Commission here says constitute the only possibilities, the reference to "access service," combining the different key words from the two terms before us, sheds no light. "Access service" is in fact a pre-Act term, defined as "services and facilities provided for the origination or termination of any interstate or foreign telecommunication." 47 CFR § 69.2(b).

If the Commission meant to place ISP-traffic within a third category, not "telephone exchange service" and not "exchange access," that would conflict with its concession on appeal that "exchange access" and "telephone exchange service" occupy the field. But if it meant that just as ESPs were "users of access service" but treated as end users for pricing purposes, so too ISPs are users of exchange access, the Commission has not provided a satisfactory explanation why this is the case. In fact, in *In the Matter of Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended*, 11 FCC Rcd 21905, 22023 (¶ 248) (1996), the Commission clearly stated that "ISPs do not use exchange access." After oral argument in this case the Commission overruled this determination, saying that "non-carriers may be purchasers of those services." *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability*, FCC 99-413, at 21 (¶ 43) (Dec. 23, 1999). The Commission relied on its pre-Act orders in which it had determined that non-carriers can use "access services," and concluded that there is no evidence that Congress, in codifying "exchange access," intended to depart from this understanding. See *id.* at 21-22 (¶ 44). The Commission, however, did not make this argument in the ruling under review.

Nor did the Commission even consider how regarding non-carriers as purchasers of "exchange access" fits with the statutory definition of that term. A call is "exchange access" if offered "for the purpose of the origination or termination of *telephone toll services*." 47 U.S.C. § 153(16). As MCI

WorldCom argued, ISPs provide information service rather than telecommunications; as such, "ISPs connect to the local network 'for the purpose of' providing information services, not originating or terminating telephone toll services." Petitioner MCI WorldCom's Reply Br. at 6.

The statute appears ambiguous as to whether calls to ISPs fit within "exchange access" or "telephone exchange service," and on that view any agency interpretation would be subject to judicial deference. See *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842-43 (1984). But, even though we review the agency's interpretation only for reasonableness where Congress has not resolved the issue, where a decision "is valid only as a determination of policy or judgment which the agency alone is authorized to make and which it has not made, a judicial judgment cannot be made to do service." *SEC v. Chenery Corp.*, 318 U.S. 80, 88 (1943). See also *Acme Die Casting v. NLRB*, 26 F.3d 162, 166 (D.C. Cir. 1994); *Leeco, Inc. v. Hays*, 965 F.2d 1081, 1085 (D.C. Cir. 1992); *City of Kansas City v. Department of Housing and Urban Development*, 923 F.2d 188, 191-92 (D.C. Cir. 1991).

* * *

Because the Commission has not provided a satisfactory explanation why LECs that terminate calls to ISPs are not properly seen as "terminat[ing] ... local telecommunications traffic," and why such traffic is "exchange access" rather than "telephone exchange service," we vacate the ruling and remand the case to the Commission. We do not reach the objections of the incumbent LECs—that § 251(b)(5) preempts state commission authority to compel payments to the competitor LECs; at present we have no adequately explained classification of these communications, and in the interim our vacatur of the Commission's ruling leaves the incumbents free to seek relief from state-authorized compensation that they believe to be wrongfully imposed.

So ordered.

BELLSOUTH TELECOMMUNICATIONS, INC.

FPSC DKT NO 000075-TP

STAFF'S 1ST REQUEST FOR PRODUCTION OF DOCUMENTS

POD NO. 6

Decision No. C00-685

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

DOCKET NO. 00B-011T

IN THE MATTER OF THE PETITION OF SPRINT COMMUNICATIONS COMPANY L.P. FOR ARBITRATION PURSUANT TO U.S.C. § 252(B) OF THE TELECOMMUNICATIONS ACT OF 1996 TO ESTABLISH AN INTERCONNECTION AGREEMENT WITH U S WEST COMMUNICATIONS, INC.

DECISION DENYING APPLICATION FOR REHEARING, REARGUMENT, OR RECONSIDERATION

Mailed Date: June 23, 2000
Adopted Date: June 7, 2000

I. BY THE COMMISSION

A. Statement

This matter comes before the Commission for consideration of the Application for Rehearing, Reargument, or Reconsideration ("RRR") filed by Sprint Communications Company L.P. ("Sprint") on May 25, 2000. Pursuant to § 40-6-114, C.R.S., Sprint requests reconsideration of Decision No. C00-479. In that decision, we rejected Sprint's request that the arbitrated interconnection agreement (under 47 U.S.C. § 252) between Sprint and U S WEST Communications, Inc. ("USWC") provide for the parties to pay termination compensation for telephone traffic to Internet Service Providers ("ISP"). Sprint offers five reasons for reversing our Initial Commission Decision. Sprint argues: first, termination compensation is

mandatory under applicable law; second, there is not an adequate record to justify the Commission's findings of the market distortions caused by ordering termination compensation; third, bill-and-keep can only be ordered under applicable law when traffic is roughly balanced; fourth, ISP and non-ISP bound traffic cannot be accurately differentiated; and, fifth, a denial of termination compensation to Sprint would be illegally discriminatory. We reject these contentions. For the reasons stated in Decision No. C00-479 and here, we deny the application for RRR.

B. Discussion

1. Sprint first argues (application for RRR, pages 1-11) that we erred in finding that ISP-bound traffic is interstate in nature, and, therefore, not subject to reciprocal compensation. Citing cases such as *Bell Atlantic Tel. Co. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000), *Southwestern Bell Tel. Co. v. Public Utility Commission*, 2000 WL 332062 (5th Cir. 2000); *Illinois Bell Tel. Co. v. WorldCom Technologies*, 179 F.3d 566 (7th Cir. 1999); and the Federal District Court of Colorado's bench ruling in *U S WEST Communications, Inc. v. Hix et al.*, Civil Action No. 97-D-152, Sprint essentially argues that *currently effective* federal law holds ISP traffic to be local in

nature under § 251(b)(5).[1] As such, Sprint argues, it is legally entitled to termination compensation for ISP calls. Sprint is incorrect.

2. Decision No. C00-479 did not determine ISP traffic to be interstate in nature as a legal matter. For example, the Decision, page 16, points out that our refusal to order reciprocal compensation for Internet calls was not based upon the finding that such traffic is interstate. Rather, the Decision, pages 14-16, explains that Internet-bound traffic appears to be interstate in light of the relevant technical and policy considerations. Moreover, the decision (pages 14-18) explains that, in light of pertinent economic and policy considerations, ISP traffic should not be treated as local for purposes of termination compensation arrangements between Sprint and USWC. The decision, for example, demonstrates that the Internet end-user (*i.e.* the person making the telephone call to the Internet) is properly viewed primarily as a customer of the ISP. The Internet provider, in turn, is a customer of Sprint. Viewed in this manner, termination compensation for an Internet call is not justified. The decision discusses the economic distortions that are likely to occur if we order such compensation in this case.

[1] 47 U.S.C. § 251(b)(5).

3. Sprint's characterization of the currently effective law on this issue is incorrect. Sprint contends that federal authorities, especially the court in *Bell Atlantic*, have now determined that ISP traffic is local and entitled to reciprocal compensation under the Act. [2] There are two layers of analysis to be done on this issue. First, there is the jurisdictional question. The F.C.C. ruled using end-to-end analysis that ISP-bound traffic is interstate. *Bell Atlantic* vacated, but did not reverse, that determination. At present, therefore, there is no federal authority on the jurisdictional status of ISP-bound traffic.[3]

4. Pending F.C.C. determination of the jurisdictional status of this traffic, the second layer of analysis comes into play. [Move FN 2 from Green here] The second layer of analysis invokes state commissions' arbitration powers under § 252. Under that power, the FCC's directive that state commissions are free to require *or not require* termination

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[2] We note that the court (page 8) expressly acknowledged that pending FCC reconsideration of the issue, incumbent local exchange carriers are "free to seek relief from state-authorized compensation that they believe to be wrongfully imposed." This statement is inconsistent with Sprint's contention that the court has finally determined that ISP traffic is local and entitled to reciprocal compensation.

[3] In our Initial Commission Decision here, we expressed our view that the F.C.C. probably got the matter right in ruling that ISP traffic is interstate in nature. *Id.* at 14. We reach that conclusion by noting the technical question of whether end-to-end or two-call analysis is correct is a wash, as plausible cases can be made for both modes. Dispostive to our opinion that this traffic is interstate are the economic considerations that we cite in support of our § 252 arbitration determination.

compensation for ISP calls is still operative. *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996 and Inter-Carrier Compensation for ISP-Bound* Traffic, 14 FCC Rcd 3689, ¶ 26. Pursuant to our § 252 arbitration powers, based on the record here and for the policy and economic considerations discussed in Decision No. C00-479, we conclude that reciprocal compensation is not an appropriate intercarrier compensation arrangement.

5. Sprint also cites *Southwestern Bell, Illinois Bell,* and *U S WEST v. Hix* in support of its request for reconsideration. *Southwestern Bell* and *Illinois Bell* involved court review of state commissions' interpretations of existing interconnection agreements.[4] In those cases, the courts ruled that payment of termination compensation for ISP traffic did not violate the Telecommunications Act of 1996. Similarly, the Federal District Court in *U S WEST v. Hix,* in its bench ruling, relied on *Southwestern Bell* and *Illinois Bell* and also concluded that reciprocal compensation for ISP calls does not violate the Act. This conclusion, however, is different than Sprint's assertion that the Act *mandates* reciprocal compensation for Internet traffic. As noted above, the currently effective law

[4] As interpretations of existing interconnection agreements those cases are similar to our own proceeding, *ICG v. U S WEST.* *See* Decision No. C99-898.

may allow but does not compel this conclusion.

6. Sprint also takes some pains to disabuse the Commission of our approving citation of other state commissions' rulings disallowing ISP termination compensation. Sprint further notes that some of our fellow Commissions have reached an opposite result to ours. The Massachusetts, South Carolina and North Carolina decisions, respectively, do share different premises from our decision here. Massachusetts and South Carolina both relied on the now-vacated FCC order. See Complaint of MCI Worldcom, Inc. against New England Telephone and Telegraph Co., D.T.E. 97-116-C Order (May 19, 1999); In re Petition of DeltaCom Communications, Inc. for Arbitration with Bell South Telecommunications, Inc., Docket No. 1999-259C, Order No. 1999-690 (Oct. 1999). Though the premises of those decisions were different, we are convinced that those commissions reached the right result. The Massachusetts DTE, in particular, cogently explained that a denial of reciprocal compensation leads to the efficient economic result, both for the Internet and the telecommunications network. Id. The facts confronted by the North Carolina commission, meanwhile, merely illustrate at an extreme the arbitrage opportunities made possible by ISP termination compensation. In the Matter of Bell South Communications, Inc., Docket No. P-561, Sub. 10 (March 31, 2000).

7. As for other states that have reached the opposite result to ours, we respectfully disagree and believe that not allowing termination compensation will best lead to efficient investment and cost allocation in the telecommunication network.

8. Finally, Sprint suggests that our present rejection of reciprocal compensation for ISP traffic conflicts with two prior rulings in the initial round of § 252 arbitration cases in 1996.[5] Decision No. C00-479, however, explains that the decisions in those prior cases were based upon the record (as to the present issue) presented there. Given the record in those prior cases and here, it is obvious that no one, including the parties to those proceedings, appreciated the importance of this issue. We note that the record here fully supports our decision denying termination compensation for Internet traffic. Moreover, Sprint's contention would mean that the Commission is bound by past rulings regardless of new information. We reject this suggestion.

9. Sprint then argues (application for RRR, pages 11-15) that our findings of economic distortions that would be caused by reciprocal compensation for ISP traffic are

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[5] Any assertion that the present ruling is inconsistent with the *ICG v. U S WEST* ruling (Decision No. C99-898) is clearly wrong. As explained in Decision No C00-479, pages 10-13, the *ICG* case concerned interpretation of an existing interconnection agreement.

unsupported by evidence in this record. The concise answer to this argument is that the testimony of USWC's witnesses support our findings and conclusions.. In part, our findings were based upon well-settled economic principles discussed by witnesses for USWC such as Dr. Taylor. For example, our finding that reciprocal compensation for Internet calls would result in excessive use of the Internet is based on the economic principle that end-users will use the Internet in excess of the economically efficient amount due to distortions in the price signals to end-users.[6] In short, we reject Sprint's contention regarding the adequacy of the record to support the decision.[7]

10. Sprint's third argument (application for RRR, pages 15-18) is that we committed legal error in ordering bill-and-keep[8] as the intercarrier compensation arrangement for Internet calls. According to FCC rules,[9] Sprint contends, bill-and-keep is legally supportable only where traffic between

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[6] With reciprocal compensation for this traffic, Sprint will be able to shift the costs caused by its ISP customers to a third party, USWC.

[7] Sprint's argument that, under our theory, USWC's ISP customers are subsidized by non-Internet users is itself unsupported by this record. We note that USWC's rates for local service—indeed for many services—are subject to regulation by the Commission. There is no evidence that USWC is recovering its ISP-related costs from other services through rates set by this Commission. Further, we note that USWC does not have the opportunity to shift its ISP costs to another competitor—the opportunity Sprint would have with a reciprocal compensation arrangement.

[8] A bill-and-keep arrangement is one in which neither interconnecting carrier charges the other for telecommunications traffic exchanged between networks.

[9] 47 C.F.R. §57.713.

interconnecting carriers is "roughly balanced." The evidence here indicates that ISP traffic between Sprint and USWC will not be "roughly balanced." Therefore, Sprint argues, a bill-and-keep arrangement is unlawful even if the traffic is not regarded as local. We disagree.

11. Contrary to Sprint's assertion, the necessary premise of Sprint's argument is that Internet traffic is local under FCC rules. Otherwise, no legal entitlement to reciprocal compensation would exist. The FCC's rules establish reciprocal compensation requirements for the transport and termination "of *local* telecommunications traffic" between carriers (emphasis added). *See* 47 C.F.R. §57.701(a), and 47 C.F.R. §57.713(a). As the above discussion points out, the FCC has not ruled that ISP traffic is local. The FCC, moreover, has specifically determined that state commissions in § 252 proceedings have discretion *not* to order reciprocal compensation for Internet calls. Thus, the fundamental premise of Sprint's argument is incorrect.[10]

12. The Commission is not legally required to order reciprocal compensation for ISP traffic. For the reasons discussed in Decision No. C00-479, reciprocal compensation is

[10] Similarly, the state district court's decision in 96-CV-2566 is also inapposite. That decision concerned a Commission rule adopting bill-and-keep for local traffic. The rule at issue did not relate to Internet traffic.

not appropriate for Internet calls. The decision explains our conclusion that the originator of an Internet call is acting primarily as a customer of the ISP, not as a customer of USWC. Further, we view the ISP as a customer of Sprint (in cases where end-users call an ISP served by Sprint). Sprint may, and should, recover its costs for handling Internet traffic from its own customers, and the Internet provider, not from a third party such as USWC. Bill-and-keep is highly consistent with these views. We adopt bill-and-keep, therefore, not as a last resort, but rather as the best compensation scheme under the circumstances.

13. Next, Sprint argues (application for RRR, pages 19-25 confidential version)) that the record fails to support our finding that USWC will be able to differentiate ISP traffic from other traffic. Such differentiation is necessary because non-ISP traffic between Sprint and USWC will be subject to reciprocal compensation. In addition, Sprint contends that the Commission should not rely on USWC's proposal for differentiating ISP and non-ISP traffic because it was presented "just minutes before the hearing" and Sprint did not have an adequate opportunity to conduct cross-examination on the testimony relating to this issue.

14. Sprint's argument demonstrates that USWC's method for differentiating ISP traffic is far from perfect.

Notwithstanding these objections, however, we affirm our holding (Decision No. C00-479, page 18) that the method is reasonable for the time being.

15. The record indicates, and we hold, that reciprocal compensation should not be paid for ISP traffic. In light of this conclusion, some method of differentiating ISP and non-ISP calls is necessary at this time (since reciprocal compensation will be paid for non-ISP traffic). USWC's proposal appears to be a reasonable method. Notably, Sprint itself suggested no other method.

16. Furthermore, Sprint is the party here with the best and least cost access to the information of what is and is not ISP-bound traffic. To the extent that US West's traffic measurement overcounts ISP-bound traffic, Sprint should be able to rebut that with its own knowledge of its own customers. To the extent that US West undercounts Sprint's ISP-bound traffic, then Sprint will certainly not object to this sort of error.

17. That said, we agree that the ISP-bound traffic measurement issue could properly be the subject of further

contractual refinement between the parties.[11]

18. In any event, USWC's proposal for differentiating Internet from non-Internet calls is an acceptable interim method. Sprint is free to request amendment of the interconnection agreement (e.g. in new negotiations with USWC or new proceedings before the Commission) if it is able to develop another method of differentiating ISP from non-ISP traffic.[12] We note that ISPs served by Sprint will be Sprint's customers. Sprint will have the ability to measure traffic to its own ISP customers if it chooses to do so. Further, we note that Sprint has a responsibility to pursue other methods of differentiating such calls if it is dissatisfied with USWC's method. For these reasons, we reject Sprint's arguments regarding the unacceptability of USWC's proposal here and its concomitant suggestion that reciprocal compensation should be adopted for all traffic, including ISP traffic.

19. Fifth, and finally, Sprint argues that we are illegally discriminating against it by denying it ISP-bound

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[11] Sprint does point out the disconnect between this decision, which segregates traffic by type, and earlier Commission pronouncements that regulation, pricing and compensation should not depend on such differentiation. The not wholly satisfactory answer to this is that as between artificially distorting the market conditions by ordering reciprocal compensation and treating all traffic the same, we choose the former. Moreover, it is not clear which way Sprint's pointing out this inconsistency cuts. Because we aspire to regulate, price and compensate traffic in similar fashion could lead us to the conclusion that all traffic should be subject to bill and keep.

termination compensation, while other carriers receive such compensation under earlier agreements. This is incorrect.

20. Sprint's interconnection arbitration is the first to reach the Commission in this second round of interconnection contracting. Based on the record here, we conclude that no termination compensation will owe for ISP-bound traffic between Sprint and U S WEST. That in no way is inconsistent with our construction of first round interconnection agreements in ICG where we concluded that the parties contracted to treat ISP-bound traffic as subject to termination compensation.

21. Sprint's claim that other CLECs are getting termination compensation, while it does not, constitutes discrimination that mandates a continuing requirement to order termination compensation is nonsensical. Under Sprint's logic, the Commission—and all parties to interconnection agreements—could never change interconnection terms because, by changing the terms, some party is being discriminated against vis a vis other parties to interconnection agreements. Clearly, parties to interconnection agreements and the Commission must have the discretion to change the agreement in response to changing circumstances. That is why they are for a fixed period, after all. Moreover, as pointed out in the Initial Decision, should

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[12] Alternatively, Sprint should consider whether the bill-and-keep method should be used for all traffic exchanged between Sprint and USWC.

we reverse the outcome here in a future interconnection arbitration. Sprint is free to pick-and-choose that more advantageous term.

22. Finally, Sprint (application for RRR, pages 22-25) reiterates its argument that denial of reciprocal compensation for Internet calls here discriminates against Sprint. The application primarily points to our decision in *ICG v. U S WEST*, Decision No. C99-898 (a case involving interpretation of an existing interconnection agreement).[13] In addition, Sprint notes that in the initial round of arbitration in 1996-1997, the Commission approved two interconnection agreements calling for reciprocal compensation for ISP traffic. We fully addressed these arguments in Decision No. C00-479, pages 10-13. For the reasons stated there, we reject Sprint's contentions.

II. ORDER

A. The Commission Orders That:

1. The Application for Rehearing, Reargument, or Reconsideration by Sprint Communications Company L.P. filed on May 25, 2000 is denied.

2. This Order is effective upon its Mailed Date.

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[13] The ICG/USWC interconnection agreement addressed in this case is subject to new arbitration proceedings currently pending before the Commission.

B. ADOPTED IN COMMISSIONERS' WEEKLY MEETING June 7, 2000.

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

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Commissioners

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Decision No. C00-479

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

DOCKET NO. 00B-011T

IN THE MATTER OF THE PETITION OF SPRINT COMMUNICATIONS COMPANY, L.P. FOR ARBITRATION PURSUANT TO U.S. CODE § 252(B) OF THE TELECOMMUNICATIONS ACT OF 1996 TO ESTABLISH AN INTERCONNECTION AGREEMENT WITH U S WEST COMMUNICATIONS, INC.

INITIAL COMMISSION DECISION

Mailed Date: May 5, 2000
Adopted Date: May 3, 2000

Appearances:

Steve Kukta, Esq., Kansas City, Missouri, *Pro Hac Vice*, and Andrew Jones, Esq., Kansas City, Missouri, *Pro Hac Vice*, for Sprint Communications Company, L.P.; and

John M. Devaney, Esq., Washington, D.C., *Pro Hac Vice*, and John L. Munn, Esq., Denver, Colorado, for U S WEST Communications, Inc.

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I. BY THE COMMISSION

A. Statement

1. Sprint Communications Company, L.P. ("Sprint") initiated this proceeding by filing a Petition for Arbitration on January 12, 2000. Sprint requests that the Commission arbitrate certain terms, conditions, and prices for interconnections and related arrangements with U S WEST Communications, Inc. ("U S WEST"), pursuant to 47 U.S.C. § 252(b) of the Communications Act of 1934, as amended by the Telecommunications Act of 1996 ("1996 Act"). U S WEST filed its Response on February 7, 2000. New Edge Networks, Inc., and Advanced TelCom Group, Inc filed petitions to intervene. Those petitions were denied by the Commission in Decision No. C00-173, February 24, 2000.

2. The Commission assigned an Administrative Law Judge ("ALJ") to hear the matter. The ALJ established a procedural schedule which called for the matter to be heard on April 11 and 12, 2000 in Denver, Colorado. Under the 1996 Act, the Commission's decision is due May 5, 2000. Because of this time constraint, the Commission finds that due and timely execution of its functions imperatively and unavoidably require

that the recommended decision of the ALJ be omitted and that the Commission make the initial decision in this proceeding.

3. At the assigned place and time, the ALJ called the matter for hearing. As a preliminary matter, he granted admission pro hac vice to Steven Kukta and Andrew Jones to represent Sprint and John Devaney to represent U S WEST.

4. After negotiation, four items remained to be arbitrated by the Commission. The first, reciprocal compensation, was addressed at hearing. The remaining three issues, issues nos. 2, 3, and 10 from the issues matrix, involved matters concerning unbundled network elements ("UNEs"). By agreement of the parties, the UNE issues will be determined on the basis of the written submissions including testimony admitted by stipulation.

5. The matter then proceeded to hearing. Exhibits 1 through 10 and 12 through 15 were identified, offered, and admitted into evidence. Exhibit 11 was identified, offered, and then withdrawn. At the conclusion of the hearing, the parties were authorized to file posthearing statements of position no later than April 20, 2000. Both Sprint and U S WEST filed timely statements of position..

B. Findings of Fact

1. Reciprocal Compensation for ISP-Bound Traffic

a. This issue involves compensation for traffic that originates on the network of one local exchange carrier ("LEC") and is delivered over the network of another LEC to an Internet service provider ("ISP"). The ISP then provides services by transmitting the data to and from the Internet. The Federal Communications Commission ("FCC") has indicated that State commissions may determine, compensation between carriers for this type of traffic under § 252 of the 1996 Act. *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996 and Inter-Carrier Compensation for ISP-Bound Traffic*, CC Docket Nos. 96-98, 99-68, Declaratory Ruling in CC Docket 99-68, 14 FCC Rcd 3689 ¶¶ 25-27 (Feb. 26, 1999) ("Declaratory Ruling"). The FCC had determined that Internet calling is interstate in nature for jurisdictional purposes. *Id.* at ¶ 12. However, the decision of the FCC has been vacated by the U.S. Court of Appeals. *Bell Atlantic Telephone Co. v. F.C.C.*, 206 F.3d 1 (D.C. Cir. 2000). Despite this vacating of the FCC decision, the parties to this proceeding agree that this Commission has the authority to set a compensation rate for ISP-bound traffic.

b. According to U S WEST, § 251(b)(5) allows reciprocal compensation for local traffic only. U S WEST argues

that ISP traffic is interstate, not local, in nature; therefore, this traffic is not subject to reciprocal compensation under the Act.

c. U S WEST correctly notes that the FCC has ruled that ISP traffic is primarily interstate in nature. In the Declaratory Ruling, the FCC held that, notwithstanding the interstate nature of ISP calls, state commissions may still mandate reciprocal compensation for this traffic in § 252 arbitrations. Declaratory Ruling, ¶¶ 25-27. By the same token, the FCC determined, state commissions "are free not to require the payment of reciprocal compensation for this traffic and to adopt another compensation mechanism." Declaratory Ruling, ¶ 26.

d. In *Bell Atlantic,* the D.C. Circuit vacated the FCC's holding that ISP traffic is not local, but interstate in nature. The court ruled that the FCC failed satisfactorily to explain its reasons for concluding that delivery of calls to ISPs does not constitute termination of local telecommunications traffic under the Act. Although the court vacated the Declaratory Ruling to the extent it found ISP calls to be interstate in nature, the court did not address the FCC's holding that state commissions are authorized to determine the intercarrier compensation mechanism for such traffic in § 252 proceedings. See *Bell Atlantic,* 206 F. 3d at 9.

2. Sprint's Position

a. Sprint argues for compensation at the local end-office termination rate, which is $0.00283 per minute. It notes that it incurs costs to provide the service, and without some compensation from U S WEST those costs will go unrecovered. This will keep it from competing for this type of local traffic, and is thus anticompetitive. Inasmuch as the compensation is reciprocal, U S WEST would be compensated for traffic which originates on Sprint's network and terminates at an ISP served by U S WEST. Sprint also rejects the notion of singling out Internet traffic because there are many types of local traffic that exhibit similar characteristics which are not singled out. Sprint points to such examples as telecommuters who log onto a local area network ("LAN") for an extended period of time, radio talk show call in numbers, and governmental help lines.

b. Sprint concedes that its cost structure will be different from U S WEST's since its network structure is different. It argues that a competitive local exchange carrier ("CLEC") such as Sprint will have lower call volumes at the beginning and hence a higher per unit cost than an incumbent local exchange carrier ("ILEC") such as U S WEST. Sprint concedes that with state-of-the-art technology it will likely be able to build a network without deploying as many switches as an

ILEC. It seeks to have the local end-office termination rate utilized for the reciprocal compensation rate.

c. Sprint claims that Internet traffic cannot currently be distinguished from other categories of telephone calls. It suggests that, at present, attempting to separately identify and measure ISP-bound traffic will be of little value and expensive.

d. Sprint notes that the Commission in prior cases has ordered termination compensation for other CLECs for ISP traffic, and argues that failure to take the same action here would constitute unlawful discrimination. Sprint primarily points to the ICG complaint case[1] in which we directed U S WEST to pay termination compensation to ICG for ISP calls.[2]

3. U S WEST's Position

a. U S WEST opposes the payment of reciprocal compensation for ISP traffic. In U S WEST's view, ISP traffic is not local but is analogous to long distance traffic. U S WEST suggests that the FCC's Declaratory Ruling finding Internet traffic to be substantially interstate in nature was unaffected by the Court of Appeals' vacating of the that order. It further analogizes ISP-bound traffic to paging traffic. It notes that

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[1] *ICG Telecom Group, Inc. v. U S WEST Communications, Inc.*, Docket No. 98F-299T.

this Commission has previously held that reciprocal compensation makes little or no sense when traffic is strictly one-way.

b. U S WEST views the cost-causer as the ISP, not the party originating the Internet call. It notes the different characteristics of Internet calls from other local calls: the calls last several times longer than voice calls and the calls are one-way because ISP modems do not call out. U S WEST notes that at the current local end-office termination rate of $0.00283 per minute, one hour of Internet usage by one customer each day for a month would result in $5.10 per month of compensation at the existing voice rate. U S WEST suggests this is clearly excessive given that it receives only about $15 per month for providing local exchange service.

c. U S WEST claims that the proper analysis is to view Internet calls (calls to ISPs) using a long distance paradigm rather than a local paradigm. In U S WEST's view, an ISP is more like an interexchange carrier ("IXC"). While an IXC connects a local customer to someone in a different exchange area for a voice call, an ISP connects a local customer's computer to a computer which may be located anywhere in the world. The IXC arranges all the intermediate steps and pays

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[2] The other case Sprint relies on is the MFS/ U S WEST arbitration, Docket No. 96A-287T. *See* Decision Nos. C96-1185 (Mailed Date of November 8, 1996), page 30.

whatever it has to, to complete the call, charging only the end user. When there are several carriers carrying an interexchange call for the IXC, they all split the revenue. U S WEST suggests that a similar approach is more appropriate for ISP traffic. It notes that the traffic would not be present but for the ISP. The ISP receives compensation from the end user, its customer. In U S WEST's view the ISP should be compensating the carriers that bring calls to the ISP, just as the ISP compensates the providers that take the call out on the Internet.

d. Because the FCC exempts ISPs from paying access charges, U S WEST argues that the next best approach is for the CLEC to share some of the revenues it receives from the ISP with the ILEC in proportion to the relative costs which the ILEC and CLEC incur. This approach addresses the situation in which the call originates on the ILEC's network and is then transferred to the CLEC's network for the purpose of connecting with the customer's ISP. As a third-best, interim solution, U S WEST recommends bill and keep where ISP traffic is exchanged between the ILEC and the CLEC but without any exchange of compensation.

e. In the alternative, should this Commission determine that some compensation should be paid to a CLEC for calls originating on an ILEC's network destined to an ISP on a CLEC's network, U S WEST suggests that the local end-office

termination rate which is contained in its tariffs for voice traffic is too high. U S WEST argues that the voice rate set by this Commission is not reflective of costs for a data network such as Sprint would provide in the future. Sprint's costs would be lower. It also argues that the rate component that recovers the fixed cost of a voice call (call set up) was designed to recover that cost over a shorter period of time typical of a voice call. Thus, the longer Internet calls would over-recover fixed costs.

f. U S WEST finally suggests that reciprocal compensation will cause an over-investment in facilities to serve dial up modems of ISPs. It will also cause a subsidy to flow to those users. In U S WEST's view, reciprocal compensation will inevitably create upward pressure on basic local exchange rates.

C. Commission Decision.

a. We disagree with Sprint's argument that failure to order reciprocal compensation here would be discriminatory in light of the ICG ruling. We likewise disagree that ICG has any preclusive or precedential value here. In the ICG proceeding, we concluded that the existing ICG/**U S WEST** agreement provided for termination compensation for ISP traffic. *See* Decision No. C99-898, page 6. While we observed (Decision No. C99-898, pages 6-9) that certain policy considerations

suggested that termination compensation should be paid for ISP calls (e.g. because ISP traffic is exempt from access charges, ICG could not recover its ISP-related costs for terminating those calls without reciprocal compensation), those observations were based upon the record in that case. The ICG/U S WEST dispute came before the Commission on cross-motions for summary judgment. The economic analysis present in this record was not present in the ICG proceeding.

b. Moreover, public policy concerns were not the deciding factors in the ICG proceeding. That case concerned interpretation of an existing interconnection agreement, not arbitration of terms that should be included in such an agreement. We based our directive that U S WEST pay termination compensation to ICG for ISP calls on the existing ICG/U S WEST interconnection agreement's provision for such compensation. *See* Decision No. C99-898, page 6. Notably, we specifically stated that we might revisit this issue (i.e. the payment of termination compensation for ISP traffic) in future arbitration proceedings:

> Given reasonable expectations by ICG that its existing interconnection agreement provided for reciprocal compensation for ISP traffic (above), it is reasonable to order U S WEST to pay compensation at this time. This arrangement may change in the future depending on the FCC's pending rulemaking on this matter, or depending on future § 252 proceedings before this Commission. Whether the continued allowance of reciprocal compensation for ISP-traffic provides

> 'perverse' economic incentives may be more fully considered at that time for purposes of future interconnection agreement. (footnotes omitted)

(emphasis added) Decision No. C99-898, pages 9-10.

c. The point is that our prior orders mandating reciprocal compensation for ISP calls-Sprint mentions two, the ICG case and the MFS/U S WEST arbitration discussed in the ICG ruling were from the first round of § 252 arbitrations before the Commission in 1996 and early 1997. Here, U S WEST correctly observes that in those prior proceedings no one, including the Commission, appreciated the economic ramifications of ordering termination compensation for ISP traffic. For example, the information presented in this case relating to the substantial and growing volume of ISP traffic and the imbalance of that traffic on U S WEST's network as compared to CLECs' networks was not available at that time.

d. The present case is the first fully litigated § 252 proceeding after the first round of arbitrations to present the question relating to termination compensation for ISP calls. It is appropriate for the Commission to reconsider, in light of the evidence and argument presented here, whether termination compensation should continue to be paid for calls to the Internet. Our present decision not to require termination compensation for ISP traffic does not discriminate against Sprint. Past interconnection agreements (i.e. the MFS/U S WEST

and ICG/U S WEST agreements) were based upon circumstances existing at that time, and we note that those agreements have expired or will shortly expire. Therefore, the present ruling is not unlawfully discriminatory as compared to past decisions by the Commission.[3] As for future interconnection agreements, whether U S WEST will be ordered to pay termination compensation to other CLECs for ISP traffic will, of course, be decided based upon the evidence and argument presented in those cases. If our future decisions on this issue differ from the present one, Sprint may exercise its rights under § 252(i) of the Act to opt into those provisions.

e. The relevant situation is as follows: An end-user, a local exchange customer of U S WEST is a customer of an ISP, which is, in-turn, a local exchange customer of Sprint. When this end-user initiates Internet-bound traffic, the call is transmitted from U S WEST to Sprint, from Sprint to the ISP, and from the ISP to the Internet. Both U S WEST and Sprint incur costs during this process. The Commission must determine, as part of the interconnection agreement between U S WEST and Sprint, how these costs will be recovered.

f. Both parties present scenarios which they

[3] A contrary holding that we are bound by the mistakes of past arbitrations is belied by the fact the these agreements are for a limited duration.

contend are analogous to the situation described above. U S WEST offers as an analogy the ILEC-IXC interconnection for the purpose of transmitting an interstate call. In this model, the originator of the call is primarily the customer of the IXC and the IXC charges the customer for the call. The IXC then turns around and compensates the LECs, which originate and terminate the call. In the situation of interest here, U S WEST argues that the ISP plays a role analogous to that of the IXC. Sprint, on the other hand, favors an analogy involving ILEC-CLEC interconnection for the purpose of transmitting a local call. The originator of the call in this analogy is a customer of the ILEC and the ILEC charges the customer for the call. The ILEC then compensates the CLEC for the costs it incurs in terminating the call. Articulating the parties' positions more succinctly, U S WEST contends that the Internet-bound traffic being considered here is an interstate call, whereas Sprint believes it to be a local call.

g. The Commission finds that U S WEST's analogy is the more reasonable. Given that most Internet calls end at locations out of state, it appears that such calls are primarily interstate in nature. We view the originator of the Internet-bound call as acting primarily as a customer of the ISP, not as a customer of U S WEST. Both U S WEST and Sprint are providing access-like functions to transmit the call to the Internet,

similar to what their role would be in providing access to an IXC to transmit an interstate call. Furthermore, the remote hubs to which Internet-bound traffic is directed are often outside the state in which the call originated. Beyond that, the ultimate destination of these calls is some web site, which is generally in another state or even another country.

h. The ILEC-IXC interconnection analogy suggests that the ISP should compensate both U S WEST and Sprint for the costs they incur in transmitting this call. Even if that analogy were not employed, applying the principle of cost causation would lead to the same conclusion, namely, that the ISP should pay access charges to both U S WEST and Sprint for the cost caused by the ISP customer. The ISP would recover these charges from that customer. This option, however, is precluded by the FCC's access charge exemption for ISPs.[4] Therefore, both U S WEST and Sprint are in the position of having to recover the costs of carrying this Internet-bound traffic through some means other than access charges.

i. Sprint recommends that cost recovery be done through the process of reciprocal compensation. In the scenario being considered here, since the end-user originating the

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[4] By granting this exemption, the FCC has given the ISPs a valuable property right. The importance of clearly defining property rights was analyzed in a path-breaking article by R. H. Coase ("The Problem of Social Costs," Journal of Law and Economics, Vol. 3, 1960, pp. 1-44).

Internet-bound call is a local exchange customer of U S WEST, U S WEST would have to compensate Sprint for the latter's costs incurred in transmitting the call to the ISP. The Commission rejects the use of reciprocal compensation with a positive rate in this instance.

j. While ISP calls appear to be interstate in nature, our conclusion is not necessarily based upon that determination. Even if this traffic were considered to be local in nature, the Commission still would not embrace reciprocal compensation with a positive rate. Such a scheme would, in our view, bestow upon Sprint an unwarranted property right, the exercise of which would result in decidedly one-sided compensation. In addition, we find that reciprocal compensation would introduce a series of unwanted distortions into the market. These include: (1) cross-subsidization of CLECs, ISPs, and Internet users by the ILEC's customers who do not use the Internet; (2) excessive use of the Internet; (3) excessive entry into the market by CLECs specializing in ISP traffic mainly for the purpose of receiving compensation from the ILECs;[5] and (4) disincentives for CLECs to offer either residential service or

[5] The North Carolina Commission recently put an end to a "sham CLEC" operation that underscores the profitable arbitrage possibilities created by ordering reciprocal compensation. *See In the Matter of Bell South Communications, Inc. v. US LEC,* Docket P-561, sub 10, Order Denying Reciprocal Compensation (N.C. P.U.C. March 31, 2000).

advanced services themselves. In short, we agree with U S WEST that reciprocal compensation for ISP traffic would not improve overall social welfare; it would simply promote the welfare of some at the expense of others. See, *Complaint of MCI Worldcom, Inc against New England Telephone and Telegraph Co.,* D.T.E. 97-116-C Order (Mass. Dept. of Telecommunications and Energy May 1999) ("[T]he benefits gained through this regulatory distortion by CLECs, ISPs and their customers do not make society as a whole better off, because they come artificially at the expense of others.").

k. U S WEST suggests that, because the ISP cannot be required to pay access charges, a second-best solution would be for Sprint to share the revenues it obtains from the ISP with U S WEST, in proportion to Sprint's and U S WEST's relative costs incurred in transmitting this call. The Commission rejects this suggestion as well. We agree with Sprint that this is the equivalent of imposing access charges on the ISP, an option which is precluded by the FCC exemption.

l. The only remaining suggestion offered by either party is the application of bill and keep, whereby, in effect, Internet-bound traffic would be transmitted between U S WEST to Sprint without monetary compensation flowing in either direction. This possibility is offered by U S WEST as its third-best alternative. The Commission finds that bill and keep

should be adopted here to deal with ISP traffic. Notably, bill and keep avoids the problems found with the other proposed solutions, as stated above. In particular, it treats U S WEST and Sprint symmetrically. Moreover, the Commission believes that a bill and keep approach is appropriate because it emphasizes the need for various networks to interconnect and for carriers to recover their costs from charges imposed upon their own customers.[6]

m. In adopting bill and keep, the Commission believes that U S WEST will be able to differentiate ISP traffic from the traffic between U S WEST and Sprint that is subject to reciprocal compensation. Such differentiation is necessary because the two types of traffic will be treated differently. The procedure for differentiating the two was explained by witnesses for U S WEST, and we find this method to be reasonably designed to measure ISP traffic.[7]

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[6] As we move forward, correctly, to the consideration of globally connected communications networks, we need to abandon the archaic approaches to service categorization and regulatory jurisdiction. Regardless of technology or purpose, universal access to equitable connections should be the goal. Whether a call is local, interstate, voice, data, wireless, internet or wireline should not be a determining factor in how the activity is regulated, priced or compensated.

[7] We have concluded that Sprint is not entitled to reciprocal compensation for ISP-bound traffic for the reasons stated above. Notwithstanding the D. C. Circuit's vacation and remand of the Declaratory Ruling, we believe that the FCC correctly concluded that ISP-bound traffic is interstate and thus not "local telecommunications traffic". The FCC's conclusion, though wanting in explanation, is ultimately vindicated by an economic analysis of ISP traffic. In addition, even if ISP traffic were determined to be local, the policy and economic considerations discussed above indicate that it should not be subject to reciprocal compensation.

1. UNE Issues

a. Issues nos. 2, 3, and 10 submitted for arbitration relate to UNEs. Issues nos. 2 and 3 involve the question to what extent U S WEST is required to combine UNEs at the request of Sprint. Sprint suggests that U S WEST be obligated to combine UNEs in any manner in which UNEs are ordinarily combined within U S WEST's network, provided that such combination is technically feasible and would not impair the ability of other carriers to obtain access to UNEs or to interconnect with U S WEST's network. U S WEST argues that it should not be required to combine UNEs unless the UNE combination is pre-existing or already combined for the particular customer Sprint seeks to serve.

b. Issue no. 10 involves nonrecurring charges for the provision of UNE combinations. Sprint contends that U S WEST is not entitled to a nonrecurring charge for each and every element included in a pre-existing UNE combination. U S WEST on the other hand suggests that it is entitled to recover all nonrecurring charges for each UNE whether the UNE combination already exists or the UNE combination is new. Neither party has explicitly set forth specific nonrecurring charges for UNEs and for UNE combinations.

Hopefully the FCC will consider these factors in future proceedings on this issue.

c. The Commission has previously ruled upon the issue regarding U S WEST's obligation to combine UNEs requested by CLECs.[8] We have determined that U S WEST should be required to combine UNEs for CLECs in the same manner that it normally combines them for itself. *See* Decision No. C98-1047. The same result should occur here. We accept Sprint's position and will require U S WEST to combine UNEs in any manner in which UNEs are ordinarily combined within U S WEST's network. U S WEST's position on provision of UNE combinations being limited to those UNEs that are already combined or pre-existing is rejected.

d. This requirement is consistent with the currently effective FCC rule (47 C.F.R. 51.315(b)) regarding combinations of UNEs. Furthermore, we agree with Sprint that its ability to compete in the local exchange market would be impaired under U S WEST's proposal. Therefore, the interconnection agreement between Sprint and U S WEST will require U S WEST to combine UNEs for Sprint in any manner in which they are ordinarily combined within U S WEST's network

e. This Commission has previously addressed the nonrecurring charge for provision of pre-existing UNE

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[8] To the extent U S WEST asserts that our authority to order combinations of network elements is limited because FCC Rules 47 C.F.R. 51.315(c-f) were vacated by the Eighth Circuit Court of Appeals, Iowa Utilities Board v. FCC, 120 F. Ed 753 (8th Cir. 1997), we disagree. We affirm our prior ruling in Decision No. C98-267 that the Commission possesses independent authority under State law to order combinations of network elements.

combinations in the context of the interconnection tariffs of U S WEST. See Commission Decision Nos. C97-739, C97-946, C98-1047 and C98-1250. When the Commission established the interconnection rates, it adjusted the nonrecurring charges to consider bundling. We find U S WEST is entitled to recover all nonrecurring charges as set out in its interconnection tariffs.

II. ORDER

A. The Commission Orders That:

1. The issues presented in the Petition for Arbitration filed by Sprint Communications Company, L.P. on January 12, 2000 are resolved as set forth in the above discussion.

2. Within 30 days of the final Commission decision in this docket, Sprint Communications Company, L.P. and U S WEST Communications, Inc. shall submit a complete proposed interconnection agreement for approval or rejection by the Commission, pursuant to the provisions of 47 U.S.C. § 252(e) of the Telecommunications Act of 1996.

3. The Motion for Leave to File Motion to Strike and Response to Sprint's Late-Filed Notice of Decision submitted by U S WEST Communications, Inc. on May 3, 2000 is granted. Response time to the motion is waived.

4. The Motion to Strike Sprint's Late-Filed Notice of Decision submitted by U S WEST Communications, Inc. on May 3, 2000 is granted. Response time to the motion is waived.

5. The twenty-day period provided for in § 40-6-114(1), C.R.S., within which to file applications for rehearing, reargument, or reconsideration begins on the first day following the Mailed Date of this decision.

6. This Order is effective upon its Mailed Date.

B. ADOPTED IN COMMISSIONERS' DELIBERATIONS MEETING May 3, 2000.

THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

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Commissioners

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STATE OF IOWA

DEPARTMENT OF COMMERCE

UTILITIES BOARD

IN RE ARBITRATION OF: SPRINT COMMUNICATIONS COMPANY L.P., Petitioning party, And U S WEST COMMUNICATIONS, INC., n/k/a QWEST CORPORATION, Responding party.	DOCKET NO. ARB-00-1

ARBITRATION ORDER

(Issued December 21, 2000)

On June 21, 2000, Sprint Communications Company L.P. (Sprint) filed a petition requesting arbitration of the unresolved issues in the interconnection negotiations between itself and U S WEST Communications, Inc., n/k/a Qwest Corporation (Qwest). The issues set forth in the petition included reciprocal compensation for traffic delivered to enhanced service providers (ESPs); availability and charges for unbundled network elements; vertical features; and access charges for local services. Of these issues, only the issue of reciprocal compensation remains unresolved by the parties for determination by the Utilities Board (Board).

Qwest filed its response to the petition on July 17, 2000, pursuant to 47 U.S.C. § 252(b)(3). Following the filing of testimony, a hearing was held on October 18, 2000.

The initial petition defined the issue as follows:

> Reciprocal compensation should be paid for ISP-bound traffic because such traffic is local or should be treated as local for purposes of inter-carrier compensation.

In its petition, Sprint described its request related to the reciprocal compensation issue stating,

> Sprint requests that the Board find that traffic terminated to an ISP is local and even if it is not "local" in the strictest sense of the word, it should be subject to termination rates that are equal to those paid for other types of local traffic.

This statement of its request caused some confusion as to whether the Board was being asked to determine the "termination rate" referred to in the petition. This was clarified through questioning at the hearing, enabling the Board to frame the ultimate issue for its determination as follows:

> For purposes of this interconnection agreement, will internet service provider (ISP) bound traffic be included in the quantification of "local traffic" under 199 IAC 38.6, which permits the Board to approve monetary compensation in circumstances where the total terminating to originating traffic for the exchange of mutual traffic between facilities-based local exchange companies is unbalanced?

Although Iowa is known as a "bill and keep" state, it isn't a pure bill and keep state. Compensation is handled on a bill and keep basis until circumstances exist where the total terminating to originating traffic for the exchange of mutual traffic between facilities-based local exchange companies is unbalanced. At that time, under the Board's rules, the Board has an opportunity to order reciprocal compensation, if appropriate.

The Federal Communications Commission (FCC) has ruled that ISP-bound traffic is interstate in nature.[1] This order was vacated and remanded to the FCC by the D.C. Circuit Court of Appeals, ruling that the FCC had not yet provided an adequate explanation of why such traffic is exchange access rather than telephone exchange service.

The Board does not agree that the determination in this arbitration proceeding turns on the distinction between whether ISP-bound traffic is "local" or "interstate." Other state commissions have struggled with this issue and there is no consensus among the states as to what is the most appropriate and beneficial way to address the issue of reciprocal compensation for ISP-bound traffic. The Board desires that its determination be one that will encourage and foster increased competition in the local market.

The Board agrees with much of the analysis of the Massachusetts Department of Telecommunications and Energy. Quoting from the Massachusetts order:

> The unqualified payment of reciprocal compensation for ISP-bound traffic, implicit in our October Order's construing of the 1996 Act, does not promote real competition in telecommunications. Rather, it enriches competitive local exchange carriers, Internet service providers, and Internet users at the expense of telephone customers or shareholders. This is done under the guise of what purports to be competition, but is really just an unintended arbitrage opportunity derived from regulations that were designed to promote real competition. A loophole, in a word. There is, however—and we emphasize this point—nothing sinister or even improper about taking advantage of an opportunity such as the one presented by our October Order. One

[1] *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996 and Inter-Carrier Compensation for ISP-Bound Traffic*, CC Docket Nos. 96-98 and 99-68, 14 FCC Rcd 3689 (rel. Feb. 26, 1999) (ISP Order), vacated on other grounds in, *Bell Atlantic Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000).

> would not expect profit-maximizing enterprises like CLECs and ISPs, rationally pursuing their own ends, to leave it unexploited. Create an opportunity and inventive enterprise will seize upon it. It was ever thus. But regulatory policy, while it may applaud such displays of commercial energy, ought not create such loopholes or, once having recognized their effects, ought not leave them open.
>
> Real competition is more than just shifting dollars from one person's pocket to another's. And it is even more than the mere act of some customers' choosing between contending carriers. Real competition is not an outcome in itself—it is a means to an end. The "end" in this case is economic efficiency, which Baumol and Sidak have defined as "that state of affairs in which, as the specialized literature of welfare economics recognizes, no opportunity to promote the general welfare has been neglected. Such an opportunity is defined as the availability of a course of action that will benefit at least some individuals, in their own estimation, in a way not achieved at the expense of others." Toward Competition in Local Telephony, at 24 (emphasis added). Failure by an economic regulatory agency to insist on true competition and economic efficiency in the use of society's resources is tantamount to countenancing and, to some degree, encouraging waste of those resources. Clearly, continuing to require payment of reciprocal compensation along the lines of our October Order is not an opportunity to promote the general welfare. It is an opportunity only to promote the welfare of certain CLECs, ISPs, and their customers, at the expense of Bell Atlantic's telephone customers and shareholders.

MCI WorldCom Technologies, Inc., D.T.E. 97-116 (issued 5-19-99) pp. 9-10.

Reciprocal compensation for ISP-bound traffic would introduce a series of unwanted distortions into the market: cross-subsidization of CLECs, ISPs, and Internet users by the ILECs customers who do not use the Internet, excessive use of the Internet, excessive entry into the market by CLECs specializing in ISP traffic mainly for the purpose of receiving compensation from the ILECs, and disincentives for CLECs to offer either residential service or advanced services.

Without reaching any decision as to whether ISP-bound traffic is "local" or "interstate" in nature, the Board will not order the payment of reciprocal compensation on ISP-bound traffic. The proposed language of Sprint for inclusion in the interconnection agreement as provision (C)2.3.4.1.3 specifies that the traffic is local, while Qwest's proposed language identifies the traffic as primarily interstate in nature. Because it has not reached a determination on the nature of the ISP-bound traffic, the Board must reject the proposed language for inclusion in the interconnection agreement of both Sprint and Qwest.

IT IS THEREFORE ORDERED:

The proposed language for provision (C)2.3.4.1.3 of the interconnection agreement between Sprint Communications Company L.P. and U S WEST Communications, Inc., n/k/a Qwest Corporation, shall incorporate the Board's decision that no reciprocal compensation will be paid for ISP-bound traffic.

UTILITIES BOARD

/s/ Susan J. Frye

ATTEST:

/s/ Raymond K. Vawter, Jr.
Executive Secretary

/s/ Diane Munns

Dated at Des Moines, Iowa, this 21st day of December, 2000.

T. Dwight - Docketing; J. Devaney

BEFORE THE ARIZONA CORPORATION COMMISSION

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ACTION

CARL J. KUNASEK
CHAIRMAN
JIM IRVIN
COMMISSIONER
WILLIAM A. MUNDELL
COMMISSIONER

IN THE MATTER OF THE PETITION OF SPRINT COMMUNICATIONS COMPANY, L.P., FOR ARBITRATION OF INTERCONNECTION RATES, TERMS, CONDITIONS AND RELATED ARRANGEMENTS WITH U S WEST COMMUNICATIONS, INC.

DOCKET NO. T-02432B-00-0026
DOCKET NO. T-01051B-00-0026

DECISION NO. 62650

OPINION AND ORDER

DATE OF ARBITRATION: April 18 and 19, 2000

PLACE OF ARBITRATION: Phoenix, Arizona

PRESIDING OFFICERS: Jerry L. Rudibaugh
Karen E. Nally
Stephen Gibelli

APPEARANCES: Mr. Darren S. Weingard and Mr. Steven Kukta, on behalf of Sprint Communications Company, L.P.;

Mr. John M. Devaney, PERKINS COIE, LLP, on behalf of U S WEST Communications Inc., and;

Ms. Maureen A. Scott, Staff Attorney, Legal Division, on behalf of the Utilities Division of the Arizona Corporation Commission.

BY THE COMMISSION:

On January 11, 2000, Sprint Communications Company, L.P. ("Sprint") filed with the Arizona Corporation Commission ("Commission") a Petition for Arbitration of Interconnection Rates, Terms, and Conditions ("Petition") pursuant to 47 U.S.C. § 252(b) of the Telecommunications Act of 1996 ("Act").

Our January 26, 2000 Procedural Order set the above-captioned matter for arbitration. Our February 3, 2000 Procedural Order modified the procedural dates and set the arbitration to commence on March 23, 2000.

On February 7, 2000, U S WEST filed its Response to the Petition.

On February 14, 2000, a telephonic conference call was held between the Chief Arbitrator, counsel for Sprint and counsel for U S WEST to discuss proposed changes to our Procedural Order

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dated February 3, 2000. Following the telephone conference, Sprint and U S WEST filed a Joint Stipulation regarding Continuance of Arbitration Dates. Upon consideration of the parties' Joint Stipulation, and finding good cause therefore, we amended our February 3, 2000 Procedural Order. The February 22, 2000 Procedural Order set the hearing for April 18 and 19, 2000.

The parties notified the Commission that they had resolved most of the issues regarding interconnection, that a hearing was necessary regarding one of the issues, and that the remaining issues would be submitted in briefs and pre-filed testimony for the Commission's determination. The parties then submitted post-hearing briefs on April 28, 2000.

DISCUSSION

On February 8, 1996, President Clinton signed the Act into law which established new responsibilities for the Federal Communications Commission ("FCC") as well as for the various state commissions.[1] On July 2, 1996, the FCC issued *Telephone Number Portability*, CC Docket No. 95-116, First Report and Order and Further Notice of Proposed Rulemaking, FCC 96-268 ("TNP Order"), which established rules so that a customer who changes his local exchange carrier ("LEC") in the same local service area may keep the same telephone number. On July 22, 1996, the Commission in Decision No. 59762 adopted A.A.C. R14-2-1501 through A.A.C. R14-2-1507 ("Arbitration and Mediation Rules"), which authorized the Hearing Division to establish procedures and conduct arbitrations. Also on July 22, 1996, the Commission in Decision No. 59761 adopted A.A.C. R14-2-1301 through 1311 ("Interconnection Rules"), to govern the interconnection of local exchange services between incumbent LECs ("ILECs") and competing LECs ("CLECs"). On August 8, 1996, the FCC released *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, FCC 96-325 ("Order") and *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Second Report and Order and Memorandum Opinion and Order, FCC 96-333, in which the FCC adopted initial rules ("Rules") designed to accomplish the goals of the

[1] As part of the Act, the FCC was ordered to issue regulations no later than August 8, 1996 interpreting many of the broad and general terms of the Act.

Act.[2]

Pursuant to the Act, telecommunications carriers desiring to interconnect with the facilities and equipment of an ILEC may negotiate the terms of such interconnection directly with the ILEC. If the parties are unsuccessful in negotiating an Agreement, any party to the negotiation may request the Commission to arbitrate any open issues regarding interconnection. The Act requires the Commission to resolve any such issues within 180 days of a telecommunications carrier's initial request to the ILEC for interconnection.

The arbitration in this matter took place, as scheduled, on April 18 and 19, 2000.

Pursuant to § 252(b)(4)(C) of the Act, the Commission hereby resolves the issues presented for arbitration.

Reciprocal Compensation

Sprint and U S WEST have been unable to agree on whether Sprint is entitled to reciprocal compensation for traffic which it delivers to an internet service provider ("ISP") on U S WEST's network.

Sprint's position

It is Sprint's position that this Commission has the authority and must decide an appropriate mechanism for inter-carrier compensation for ISP-bound traffic. Sprint believes that this Commission has the responsibility to resolve interconnection disputes between carriers, including the instant dispute. Sprint believes that the FCC has left it to state commissions, pursuant to Section 252 of the Act, to determine an appropriate rate for such traffic until the FCC sets permanent rates for such traffic. "Declaratory Ruling in CC Docket No. 9-68," In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Dkt. No. 96-98 (rel. February 16, 1999). ("ISP Order").

Sprint argues that the FCC found that it is reasonable for state commissions to continue applying reciprocal compensation for ISP-bound traffic. Sprint states that the FCC has said that although it has not adopted a specific rule governing this matter of intercarrier compensation, it noted

[2] Unless otherwise noted, any reference to "Para." in this Decision is to Paragraphs in the Order.

that its policy of "treating ISP-bound traffic as local for purposes of interstate access charges would, if applied in the separate context of intercarrier compensation, suggest that such compensation is due for that traffic." Id. at para. 25. Sprint's position is that carriers incur significant costs in terminating traffic to ISPs, and that such traffic should be compensated. It believes that reciprocal compensation remains the best mechanism for ensuring that costs associated with termination of this type of traffic are paid. Unless U S WEST pays reciprocal compensation on ISP-bound traffic, Sprint would be left uncompensated for its legitimate costs of terminating such traffic.

Sprint contends that ISP-bound traffic is either local or must be treated as local for inter-carrier compensation purposes, rendering reciprocal compensation as the only mechanism that currently compensates Sprint for the costs of terminating calls which U S WEST incurs.

In conclusion, Sprint's proposed language is:

> As set forth herein, the Parties agree that without regard to characterization of traffic as interstate or local, traffic carried or delivered to one carrier which is then delivered to an ESP, including, but not limited to ISPs, shall be compensated at the same rates as the reciprocal compensation rates for the termination of local traffic for the interim period until such time as the FCC determines rates specific to the transport and termination of traffic to ESPs through a mechanism for intercarrier compensation.

U S WEST's position

U S WEST's position is that the FCC will ultimately speak to the issue of the appropriate method of inter-carrier compensation for this type of traffic. U S WEST believes that the FCC's consideration of this issue may preempt state commissions' decisions regarding reciprocal compensation.

U S WEST contends that reciprocal compensation only applies to local calls and the FCC has ruled that ISP traffic is interstate in nature and therefore, not subject to the reciprocal compensation provisions of Section 251(b)(5) of the Act. U S WEST states that the FCC has determined that Internet traffic does not terminate at the ISP's local server, but flows through the ISP's equipment and terminates at a distant internet website that is often in another state. ISP Order at Para. 12.

U S WEST contends that reciprocal compensation is appropriate only for two-way traffic whereby each provides some service to the other. In the Matter of the Petition of Airtouch Paging, Inc. for Arbitration of an Interconnection Agreement with U S WEST, Docket No. 99A-001T,

Decision No. C99-651, pg. 9. U S WEST believes that ISP bound traffic is one-way traffic and is not eligible for reciprocal compensation. U S WEST argues that there is no sound policy reason for it to subsidize Sprint by paying it reciprocal compensation for handling traffic that is not local. U S WEST states that it may have to recover these substantial costs from its ratepayers, which will result in a subsidy of the Internet.

U S WEST's proposed language is:

> As set forth herein, the Parties agree that reciprocal compensation only applies to Local Traffic and further agree that the FCC has determined that traffic originated by either Party (the "Originating Party") and delivered to the other Party, which in turn delivers the traffic to an enhanced service provider (the "Delivering Party") is primarily interstate in nature. Consequently, the Delivering Party must identify which, if any, of this traffic is Local Traffic. The Originating Party will only pay reciprocal compensation for the traffic the Delivering Party has substantiated to be Local Traffic. In the absence of such substantiation, such traffic shall be presumed to be interstate.

Alternatively, U S WEST asserted that if the Commission determines that reciprocal compensation does apply to ISP traffic, the rates should not be the local voice reciprocal compensation rates. U S WEST recommended that the Commission open a separate docket for the purpose of establishing a separate rate for Internet traffic. U S WEST also indicated that is has the capability of distinguishing between voice and Internet traffic.

Staff's position

Staff's position is that the Commission has the authority to decide the reciprocal compensation issue between the parties based on authority given it under Section 252 of the Act to resolve disputes between carriers.

Staff points out that the FCC had determined that while ISP calls were jurisdictionally mixed, they were predominantly interstate under its traditional "end to end" analysis and should be classified as "interstate." However, Staff also notes that the FCC's finding that ISP calls were "interstate" was vacated by the D C. Circuit Court of Appeals and the issue was remanded to the FCC for further consideration. Staff points out that the D.C. Circuit Court of Appeals decision calls into question the use by the FCC of its traditional end-to-end analysis to determine whether ISP traffic should be classified as "interstate" or "local."

Staff believes that ISP calls are more similar to local calls than long-distance calls. Staff

contends that ISP bound traffic is very similar in nature to other traffic classified as "local", such as LAN traffic.

Staff concludes that the Commission at this time need not decide how to classify ISP calls for jurisdictional purposes. Staff also does not believe that the Commission needs to make such a determination to resolve the present dispute. Staff recommends that this issue be subject to further examination in the context of a larger generic investigation such as the wholesale cost docket where all interested and affected carriers can participate and give input in these issues.

Commission's resolution

The FCC has made it clear that, in the absence of any FCC rule regarding compensation for ISP-bound traffic, state commissions may examine interconnection agreements and consider all relevant facts, including the negotiation of the agreements in the context of the FCC's longstanding policy of treating this traffic as local, and the conduct of the parties pursuant to those agreements. Other factors for state commissions to consider include whether incumbent LECs serving ESPs (including ISPs) have done so out of intrastate or interstate tariffs; whether revenues associated with those services were counted as intrastate or interstate revenues; whether there is evidence that incumbent LECs or CLECs made any effort to meter this traffic or otherwise segregate it from local traffic, particularly for the purpose of billing one another for reciprocal compensation; whether, in jurisdictions where incumbent LECs bill their end user by message units, incumbent LECs have included calls to ISPs in local telephone charges; and whether, if ISP traffic is not treated as local and subject to reciprocal compensation, incumbent LECs and CLECs would be compensated for this traffic. ISP Order Para. 24.

When parties are unable to agree on an inter-carrier compensation mechanism for ISP-bound traffic, as is the case here, the FCC has determined that state commissions may, through the arbitration process, determine whether reciprocal compensation should be paid for this traffic. The FCC has also determined that while it has not adopted a specific rule governing reciprocal compensation for ISP-bound traffic, the FCC policy treats ISP-bound traffic as local for purposes of interstate access charges. ISP Order Para. 25.

Given the discrepancy in the treatment of ISP-bound traffic, it is important to examine the process involved with ISP-bound traffic. An ISP call is made when a customer of an ISP, an end-user making an Internet call, seeks to connect with the ISP that is providing the end-user with access to the Internet Direct Testimony of Joseph Craig page 11. Assuming the use of a dial-up connection, the end-user connects to its ISP using the public switched telephone network. The same switch is used to originate ISP calls as is used to originate local and long distance calls. Id.

U S WEST admitted that ISP traffic is routed over the same U S WEST network that a local call would and that the same switch is used for both calls. Both calls receive the same switching, transmission, and termination facilities. (TR., page 162). In addition, U S WEST treats ISPs as local not only for purposes of purchasing facilities to connect to the local and internet networks, but that the prices charged for such facilities are contained in local tariffs. (TR., page 124).

Sprint is concerned that if U S WEST is not required to pay reciprocal compensation for Internet traffic, it would relieve U S WEST from paying reciprocal compensation for local voice traffic as U S WEST cannot distinguish between voice and data traffic. U S WEST stated that it is able to identify Internet traffic and distinguish it from voice traffic.

We share U S WEST's concern that establishing reciprocal compensation for ISP bound traffic would result in ratepayers subsidizing the Internet. Further, this Commission recognizes that ISP bound traffic increases the need for additional infrastructure to accommodate increased network traffic. Thus, it is inappropriate for this Commission to order U S WEST to construct facilities to handle additional traffic and pay for the privilege of doing such. Therefore, we believe that bill and keep is the appropriate compensation method for ISP bound traffic.

Definition of "Currently Combined"

Sprint and U S WEST have a fundamental disagreement concerning the definition of combinations. However, both Sprint and U S WEST have agreed to proposed contract language regarding this issue.

Sprint's position

It is Sprint's position that Section 251(c)(3) of the Act requires ILECs to provide "nondiscriminatory access to network elements on an unbundled basis at any technically feasible

point on rates, terms, and conditions that are just, reasonable and nondiscriminatory . . . ." Sprint believes that U S WEST's proposed limitation of providing only "preexisting" combinations is unreasonable and discriminatory. Sprint notes that other Commissions have held that U S WEST must combine elements of the type that it currently combines in its network.

Sprint's proposed language is:

> Sprint and U S WEST have a fundamental disagreement as to the definition of combinations. As used in this Section (E), U S WEST defines combinations, including but not limited to the UNE Platform, as those elements which are already preexisting combinations in the network. As used in this Section (E), Sprint believes that U S WEST has an obligation to combine UNEs, including but not limited to the UNE Platform. Wherever the elements are, either currently combined or normally combined, meaning existing or new elements, Sprint believes U S WEST has an obligation to provide those elements in combination. The Parties acknowledge that the term "currently combined" in Rule 51.3159(b) is still pending Eighth Circuit Court of Appeals interpretation. The outcome of this dispute may require further negotiation of additional rates, terms and conditions to account for new combinations.

U S WEST's position

U S WEST believes that the phrase "currently combined" describes those pre-existing or already combined unbundled network elements (UNEs), which U S WEST will provide to Sprint as UNE in accordance with 47 C.F.R. 51.315(b).

U S WEST's argument is largely based on the language in Rule 315 which states that "[e]xcept upon request, an incumbent LEC shall not separate requested network elements that the incumbent LEC currently combines." Id. U S WEST believes that the language of 315(b) has a strict and narrow focus. U S WEST believes that the plain meaning of the language "currently combined" is customer specific and suggests a condition that presently exists. Id.

U S WEST's proposed language is:

> Sprint and U S WEST have a fundamental disagreement as to the definition of combinations. As used in this Section (E), U S WEST defines combinations, including but not limited to the UNE Platform, as those elements which are already preexisting combinations in the network. As used in this Section (E), Sprint believes that U S WEST has an obligation to combine UNEs, including but not limited to the UNE Platform. Wherever the elements are, either currently combined or normally combined, meaning existing or new elements, Sprint believes U S WEST has an obligation to provide those elements in combination. The Parties acknowledge that the term "currently combined" in Rule 51.3159(b) is still pending Eighth Circuit Court of Appeals interpretation. The outcome of this dispute may require further negotiation of additional rates, terms and conditions to account for new combinations.

Staff's position

Staff believes that the Commission should accept Sprint's definition of the term "currently combined" contained in 47 C.F.R. Section 51.315(b) since U S WEST's definition is unduly narrow and would produce an unreasonable result.

Staff believes that U S WEST's interpretation of "currently combined" is anticompetitive in nature. Staff states that U S WEST witness Hooks recommended that the Commission define the term to mean elements actually combined at the time the request is made for the particular customer to whom the CLEC is providing the service. U S WEST Exhibit 8, pages 3-5. Staff argues that the U S WEST definition would result in the enormous administrative task of having to keep track of the specific network configuration for each of U S WEST's almost three million Arizona customers and that the costs to provide service to customers may be so unreasonable in some instances as to preclude the CLEC from even offering competitive service to the customer in question.

Commission's resolution

The Commission agrees with Sprint and Staff and therefore adopts Sprint's proposed definition of "currently combined." U S WEST's rigid interpretation of the term "currently combined" would undermine the competitive purposes of the Act and has the potential to affect the ability of competitive carriers to compete in Arizona. It is reasonable to conclude, as the Minnesota Public Utilities Commission did, that "currently combined" refers to the company's normal business practices and ordinary operation of its network and not the specific configuration for each of its individual customers.

Combinations of UNEs not currently combined

Sprint and U S WEST disagree on whether or not U S WEST must provide Sprint with combinations of UNEs that are not currently combined or pre-existing within U S WEST's network.

Sprint's position

Sprint believes that this issue is essentially the same as the previous one. Sprint believes that U S WEST must provide it with access to UNEs under equal terms and conditions as it provides to itself. Sprint argues that U S WEST cannot restrict its provision of UNE combinations to "pre-existing" combinations for Sprint, when it fails to impose the same restrictions on itself. Sprint

believes that under U S WEST's restrictions, its ability to effectively compete is hindered. David Stahly Direct page 24.

Sprint's proposed language is:

> Upon request U S WEST shall perform the functions necessary to combine unbundled network elements in any manner, even if those elements are not currently combined for a given customer, provided that such combination is technically feasible and would not impair the ability of other carriers to obtain access to unbundled network elements or to interconnect with U S WEST's network.

U S WEST's position

U S WEST believes that it is under no obligation to provide UNE combinations for UNEs that are not currently combined or pre-existing within U S WEST's network. U S WEST is willing to provide Sprint with UNEs that are "currently combined" consistent with the decision of the Eighth Circuit. In Iowa Utilities Board, the Eighth Circuit vacated the rules requiring ILECs to combine for CLECs elements that are not already combined. Iowa Utilities Board v. FCC, 120 F.3d 753 (8th Circuit 1997), aff'd in part, rev'd in part, AT&T Corp. v. Iowa Utilities Board, 119 S.Ct. 721 (1999).

U S WEST's proposed language is:

> U S WEST will not on behalf of Sprint, create combinations of network elements, facilities, or features that it does not have in an already combined state.
>
> U S WEST will not, on behalf of Sprint, combine any element in its network or any UNE combination with Sprint's network elements, features or services to create a finished service. Sprint must perform this work for itself within its collocation arrangement.

Staff's position

Staff believes that given the Eighth Circuit's original ruling on 47 C.F.R. Sections 51.315(c) – (f), which is now under review, the 1996 Act cannot be read at this time to mandate an obligation on U S WEST's part to combine elements not already combined at Sprint's request. However, Staff believes that such a provision placed in the parties' agreement would not be inconsistent with the Act based on the recent Ninth Circuit opinion. MCI Telecommunications Corporation v. U S WEST Communications, 204 F.3d 1262 (9th Cir. March 2, 2000).

Staff cites a Ninth Circuit Court of Appeals opinion in which the Court upheld a provision in an interconnection agreement between MCI and U S WEST which required U S WEST to combine

uncombined UNEs at the request of MCI. Id. The Court reasoned that while the Eighth Circuit's ruling on 51.315 (c)-(f) is still valid, a provision requiring U S WEST to combine UNEs not currently combined is consistent with the 1996 Act. Therefore, Staff is of the opinion that the Commission can order U S WEST to combine elements at Sprint's request and such a provision is consistent with the 1996 Act.

Commission's resolution

This Commission has consistently and adamantly supported competition for the people of Arizona. We generally concur with U S WEST that the law does not currently obligate it to bundle those elements that it does not currently bundle for its own customers. U S WEST should provide Sprint those bundled elements that it currently offers to its own customers. However, if U S WEST bundles its elements differently in the future or the state of the law changes, then it shall make those bundled elements available to Sprint as well.

Non-recurring charges for UNE combinations

The parties also disagreed as to whether or not U S WEST should be permitted to recover its non-recurring costs for each element that comprises a part of a pre-existing UNE combination.

Sprint's position

Sprint contends that U S WEST is not entitled to a non-recurring charge equal to the sum of the per element non-recurring charges for providing currently combined elements. Sprint is willing to pay legitimate non-recurring charges that account for real costs incurred in providing access to unbundled network elements. However, Sprint believes that U S WEST's position distorts the meaning of Section 251(d)(1) of the Act. Sprint argues that any recovery of non-recurring charges for conversion of preexisting arrangements, excluding recovery of non-recurring charges for a billing change or record change, constitutes recovery of "phantom" charges. Sprint believes that this results in a windfall to U S WEST which is discriminatory and anticompetitive.

Sprint's contention is that U S WEST performs no other work justifying recovery of non-recurring charges. Therefore, recovery of such non-cost based charges by U S WEST is arbitrary, unjust, unreasonable and violates Section 251 of the Act.

Sprint has proposed that no contract language be included.

U S WEST's position

U S WEST does not believe that there is a reasonable dispute over its right to recover the non-recurring costs that it incurs to provide Sprint with access to UNEs. U S WEST relies on Section 252(d)(1) of the Act which requires that incumbent local exchange carriers be permitted to recover the costs they incur to provide access to UNEs. U S WEST believes that this right to cost recovery includes the non-recurring costs that U S WEST incurs to provide UNEs.

U S WEST's proposed language is:

> Nonrecurring charges for each unbundled network element that comprise the UNE combination shall apply when a UNE combination is ordered. These non-recurring charges are described in Sprint's Agreement and Exhibit A.

Staff's position

Staff does not believe that there is sufficient support in the record to support U S WEST's position that it is entitled to recover each separate non-recurring charge for every element offered within the UNE combination.

Staff agrees with U S WEST's contention that it is entitled to recover its cost for providing UNEs, including non-recurring costs to provide Sprint with UNE combinations. However, Staff believes that U S WEST should not be allowed to impose separate non-recurring charges for each element in any pre-existing combination provided to Sprint. Staff believes that there is insufficient support in the record for U S WEST's position that the costs it incurs when it provides the elements individually is the same as the cost that the Company incurs when it provides the pre-existing combined elements in the aggregate.

Commission's resolution

We concur with U S WEST that it is entitled to reasonable and prudent non-recurring charges that account for the costs incurred in providing access to unbundled network elements. Accordingly, U S WEST can recover its reasonable and prudent costs for providing an individual, unbundled network element. U S WEST can also recover its reasonable and prudent costs for providing pre-existing combined elements in the aggregate. U S WEST is not entitled to a separate charge for each individual element combined, but is entitled to its reasonable and prudent costs for providing the pre-

existing combined elements. If the parties cannot agree on the appropriate costs, they can establish interim rates subject to refund for review in the general cost docket.

* * * * * * * * * *

Having considered the entire record herein and being fully advised in the premises, the Commission finds, concludes, and orders that:

FINDINGS OF FACT

1. Sprint has been granted authority by the Commission to provide competitive telecommunications services to the public in Arizona.

2. U S WEST is certificated to provide local exchange and intraLATA telecommunications services to the public in Arizona pursuant to Article XV of the Arizona Constitution.

3. On January 11, 2000, Sprint filed with the Commission a Petition pursuant to the Act.

4. On February 7, 2000, U S WEST filed its Response to the Petition.

5. Pursuant to the Amended Procedural Order dated February 22, 2000, an arbitration was scheduled for April 18 and 19, 2000, at the Commission's offices in Phoenix.

6. The parties submitted pre-filed testimony, and agreed that most of the outstanding issues should be resolved based on that testimony and on post-hearing briefs. The hearing was convened as scheduled for the purposes of resolving the reciprocal compensation issue.

7. On April 27, 2000, Sprint filed a Post-Arbitration Brief. On April 28, 2000, U S WEST filed a Post-Arbitration Brief. On May 2, 2000, Staff filed a Post-Arbitration Brief.

8. The Commission has analyzed the issues presented by the parties and has resolved the issues as stated in the Discussion above.

9. The Commission hereby adopts the Discussion and incorporates the parties' positions and the Commission's resolution of the issues herein.

10. Pursuant to A.A.C. R14-2-1506(A), the parties will be ordered to prepare and sign an interconnection agreement incorporating the issues as resolved by the Commission, for review by the Commission pursuant to the Act, within thirty days from the date of this Decision.

...

CONCLUSIONS OF LAW

1. Sprint is a public service corporation within the meaning of Article XV of the Arizona Constitution.

2. Sprint is a telecommunications carrier within the meaning of 47 U.S.C. § 252.

3. U S WEST is a public service corporation within the meaning of Article XV of the Arizona Constitution.

4. U S WEST is an ILEC within the meaning of 47 U.S.C. § 252.

5. The Commission has jurisdiction over Sprint and U S WEST and of the subject matter of the Petition.

6. The Commission's resolution of the issues pending herein is just and reasonable, meets the requirements of the Act and regulations prescribed by the FCC pursuant to the Act, is consistent with the best interests of the parties, and is in the public interest.

ORDER

IT IS THEREFORE ORDERED that the Commission hereby adopts and incorporates as its Order the resolution of the issues contained in the above Discussion.

IT IS FURTHER ORDERED that Sprint Communications Company, L.P. and U S WEST Communications, Inc. shall prepare and sign an interconnection agreement incorporating the terms of the Commission's resolutions.

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IT IS FURTHER ORDERED that the signed interconnection agreement shall be submitted to the Commission for its review within thirty days of the date of this Decision.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

BY ORDER OF THE ARIZONA CORPORATION COMMISSION.

CHAIRMAN COMMISSIONER COMMISSIONER

IN WITNESS WHEREOF, I, BRIAN C. McNEIL, Executive Secretary of the Arizona Corporation Commission, have hereunto set my hand and caused the official seal of the Commission to be affixed at the Capitol, in the City of Phoenix, this 13th day of June, 2000.

BRIAN C. McNEIL
EXECUTIVE SECRETARY

DISSENT
SG:bbs

D.T.E. 97-116-C

Complaint of MCI WorldCom, Inc. against New England Telephone and Telegraph Company d/b/a Bell Atlantic-Massachusetts for breach of interconnection terms entered into under Sections 251 and 252 of the Telecommunications Act of 1996.

APPEARANCES: Alan D. Mandl, Esq.
Ottenberg, Dunkless, Mandl & Mandl
260 Franklin Street
Boston, MA 02110

-and-

Hope Barbulescu, Esq.
MCI Telecommunications Corporation
5 International Drive
Rye Brook, NY 10573
FOR: MCI WORLDCOM, INC.

Petitioner

Bruce P. Beausejour, Esq.
185 Franklin Street
Boston, MA 02110

-and-

Robert N. Werlin, Esq.
Keegan, Werlin & Pabian
21 Custom House Street
Boston, MA 02110

FOR: BELL ATLANTIC-MASSACHUSETTS

Respondent

Chérie R. Kiser, Esq.
Gina Spade, Esq.
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo
701 Pennsylvania Avenue, N.W., Suite 900
Washington, D.C. 20004

-and-

David Ellen, Esq.
Cablevision Lightpath-MA, Inc.
111 New South Road
Hicksville, NY 11801

FOR: CABLEVISION LIGHTPATH, INC.

Intervenor

Chérie R. Kiser, Esq.

Yaron Dori, Esq.
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo
701 Pennsylvania Avenue, N.W., Suite 900
Washington, D.C. 20004-2608

FOR: AMERICA ONLINE, INC.

Intervenor

Jonathan E. Canis, Esq.
Enrico C. Soriano, Esq.
Kelley, Drye & Warren
1200 19th Street, N.W., Suite 500
Washington, D.C. 20036

FOR: INTERMEDIA COMMUNICATIONS, INC.

Intervenor

Richard M. Rindler, Esq.
Swidler & Berlin
3000 K Street, N.W., Suite 300
Washington, D.C. 20007-5116

FOR: RCN-BECOCOM, LLC

Intervenor
Michael A. McRae
1133 21st Street, N.W., Suite 400
2 Lafayette Centre
Washington, D.C. 20036

FOR: TELEPORT COMMUNICATIONS GROUP, INC.

Intervenor

Russell M. Blau, Esq.
Michael Fleming, Esq.
Swidler & Berlin
3000 K Street, N.W., Suite 300
Washington, D.C. 20007-5116

-and-

Emmett E. Lyne, Esq.
K. Jill Rizotti, Esq.
Rich, May, Bilodeau & Flaherty
294 Washington Street
Boston, MA 02108

FOR: XCOM TECHNOLOGIES, INC.

Intervenor

SUMMARY

In February 1999, the Federal Communications Commission ("FCC") declared that telephone traffic bound for Internet service providers ("ISP-bound traffic") and thence onward to Internet websites is a single *interstate* call ("one call") and is therefore subject to FCC jurisdiction under the 1996 Telecommunications Act ("1996 Act"). The FCC's "one call" ruling effectively undercut the jurisdictional claim of any state utility regulatory agency over ISP-bound traffic, insofar as an agency asserted that calls to Internet websites were severable into two components: (1) one call terminating at the ISP and (2) a subsequent call connecting the ISP and the target Internet website. The FCC did not judge state regulators' decision that rested on other bases, apart from noting that decisions resting on state contract law or other legal or equitable considerations "might" still be valid until the FCC issued a final rule on the matter.

In MCI WorldCom Technologies, Inc., D.T.E. 97-116 (1998) ("Order"), relying on prior FCC's decisions that seemed to give greater scope for state jurisdiction over ISP-bound traffic, the Department of Telecommunications and Energy ("Department") had earlier ruled in favor of MCI WorldCom (a competitive local exchange carrier or "CLEC") upon its complaint that the interconnection agreement with Bell Atlantic-Massachusetts, under Section 251 of the 1996 Act, required the payment of reciprocal compensation for handling one another's ISP-bound traffic. The Order held that this interconnection agreement required reciprocal compensation for terminating ISP-bound traffic. The *express and exclusive* basis for the holding was (a) that the link between caller and ISP in ISP-bound traffic was jurisdictionally severable from the continuing link onward from the ISP to the target Internet site, (b) that ISP-bound traffic was thus "local" under the 1996 Act and the interconnection agreement, and (c) that ISP-bound traffic was, therefore, subject to Department jurisdiction as an *intrastate* rather than an *interstate* call. The Department noted that other CLECs' interconnection agreements with Bell Atlantic contained identical provisions and directed Bell Atlantic to treat them accordingly. The Department's Order claimed no other basis for its assertion of state jurisdiction over ISP-bound traffic (i.e., it asserted no jurisdictional claim based on state contract law or other legal or equitable considerations, such as the FCC had noted might underpin some state decisions).

In March, Bell Atlantic moved the Department to modify its Order in light of the FCC's ruling. After considering the motion and responsive comments, the Department today concludes that the FCC ruling has superseded its own 1998 Order and has struck down the sole and express basis for its assertion of state jurisdiction over ISP-bound traffic. The net effect of the FCC's ruling is to nullify MCI WorldCom Technologies, Inc., D.T.E. 97-116. Relying, then, on Section 252 of the 1996 Act, the Department has directed Bell Atlantic and the CLECs to negotiate their renewed dispute over payment for handling each other's ISP-bound traffic. The Department has offered to mediate the dispute, if necessary, and to arbitrate the matter, if required to.

To guide the parties in their negotiations, the Department has set forth certain views on competition in telecommunications and on its need to avoid regulatory distortions that falsely mimic competition but, in fact, simply lead to inefficient, market-entry advantage for certain CLEC/ISP entities through regulator-imposed income transfers.

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I. INTRODUCTION: THE DEPARTMENT'S ORDER OF OCTOBER 21, 1998

On October 21, 1998, the Department of Telecommunications and Energy ("Department") issued an Order granting the petition of MCI WorldCom, Inc.(1) ("MCI WorldCom") and directing New England Telephone and Telegraph Company d/b/a Bell Atlantic-Massachusetts ("Bell Atlantic") to continue reciprocal compensation payments(2) for the termination of local exchange traffic to Internet Service Providers ("ISPs") in accordance with its interconnection agreements. MCI WorldCom Technologies, Inc., D.T.E. 97-116, at 12 (1998) ("MCI WorldCom" or "October Order" or "Order"). The Department stated that it expected Bell Atlantic to apply its definition of local exchange traffic to all interconnection agreements between the ILEC Bell Atlantic and other Competitive Local Exchange Carriers ("CLECs"). Id. at 14.

In MCI WorldCom, the Department determined that a call to an ISP ("ISP-bound traffic"(3)) is functionally two separate services: (1) a local call to the ISP, and (2) an information service provided by the ISP when the ISP connects the caller to the Internet. Id. at 11. Because the Department decided that a call from a Bell Atlantic customer to an ISP that is terminated by MCI WorldCom-and by extension, other CLECs--is a "local call," for purposes of the subject interconnection agreements, CLECs transporting and terminating calls to ISPs were deemed eligible for reciprocal compensation. Id. at 12-13. However, in its Order, the Department explicitly recognized that proceedings pending before the Federal Communications Commission ("FCC") could require it to modify its holding. Id. at 5 n.11. Finally, concerns that ISPs in Massachusetts may be establishing themselves as CLECs solely (or predominantly) to receive reciprocal compensation from Bell Atlantic prompted the Department to request information that would enable it to determine whether to open an investigation into the regulatory status of particular CLECs. Id. at 13.

II . EVENTS SINCE OCTOBER 21, 1998

On November 6, 1998, Bell Atlantic filed a Motion for Extension of the Judicial Appeal Period for all parties until 20 days after the FCC issues a ruling on reciprocal compensation for ISP-bound traffic. On November 10, 1998, the Department granted Bell Atlantic's motion.

Also on November 10, 1998, MCI WorldCom filed a Motion for Reconsideration arguing that a Department decision to open an investigation into the regulatory status of certain CLECs would be inconsistent with the Act.(4) On February 25, 1999, the Department issued an Order denying MCI's Motion for Reconsideration, finding that the Department's general supervisory and regulatory jurisdiction permits it to request information from telecommunications carriers and to use that information in determining whether to open an investigation.(5) MCI WorldCom, D.T.E. 97-116-A at 4.

On February 26, 1999, the FCC issued a Declaratory Ruling and Notice of Proposed Rulemaking in which it decided that jurisdiction over ISP-bound traffic is interstate. In re: Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, Declaratory

Ruling (rel. Feb. 26, 1999) ("Internet Traffic Order"); Inter-Carrier Compensation for ISP-Bound Traffic, CC Docket No. 99-68, Notice of Proposed Rulemaking (rel. Feb. 26, 1999) ("NPRM"). The FCC concluded that ISP-bound traffic does "not terminate at the ISP's local server . . . but continue[s] to the ultimate destination or destinations, specifically at a[n] Internet website that is often located in another state." Internet Traffic Order at ¶ 12. Having decided that jurisdiction over ISP-bound traffic is determined by the nature of the end-to-end transmission between a caller and an Internet site, id. at ¶¶ 12 and 18, the FCC determined that because ISP-bound traffic is interstate, that jurisdiction over the question of reciprocal compensation for such traffic, on the claim that it is local, lies with the FCC. Id. at ¶ 12. However, the FCC reserved for future rulemaking the question of payment for ISP-bound traffic among LECs. Id. at ¶ 21. Until that rulemaking is final, state commissions retain some, undefined measure of authority over ISP-bound traffic-consistent, of course, with the FCC's declaratory ruling on jurisdiction. Id. at ¶ 22. In the interim, state commissions either may continue, where appropriate, to enforce existing reciprocal compensation obligations between carriers under interconnection agreements or may, as needed, modify those obligations based on its findings in the Internet Traffic Order. Id. at ¶¶ 25-27. And, citing this Department's concern over "gaming" of reciprocal compensation in its October Order, the FCC "note[d] that issues regarding whether an entity is properly certified as a LEC if it serves only or predominantly ISPs are matters of state jurisdiction." Id., at ¶ 24 and n. 78.

On March 2, 1999, Bell Atlantic filed a Motion for Modification of the Department's MCI WorldCom Order ("Motion for Modification") asking the Department to determine that its interconnection agreements do not require reciprocal compensation payments for ISP-bound traffic. Bell Atlantic argues that because the FCC determined that ISP-bound traffic is interstate and not local traffic, the reciprocal compensation requirements of the 1996 Act and the FCC's rules do not govern inter-carrier compensation for this traffic (Motion for Modification at 2). Therefore, Bell Atlantic contends that it is no longer required to make such payments. Bell Atlantic further states that it will escrow reciprocal compensation payments for ISP-bound traffic until the Department determines whether to modify MCI WorldCom (id.).(6) The Department originally established deadlines of March 19, 1999 for opponents' responses to the Motion for Modification and March 26, 1999 for Bell Atlantic's reply to those responses.

On March 10, 1999, Bell Atlantic responded to objections to its unilateral decision to escrow payments. Bell Atlantic filed a Motion for Stay Pending Decision on Motion for Modification ("Motion for Stay"). The Motion for Stay sought permission to escrow reciprocal compensation, pending a Department ruling on its Motion for Modification.(7)

The following entities(8) filed comments in response to the Motion for Modification: Teleport Communications-Boston, Inc., and Teleport Communications Group, as AT&T companies, and AT&T Communications of New England, Inc. (collectively "AT&T"); Cablevision Lightpath-MA, Inc. ("Cablevision"); Choice One Communications, Inc. ("Choice One"); a coalition of Massachusetts CLECs and ISPs (the "Coalition"); CoreComm Limited and CoreComm Massachusetts, Inc. (jointly "CoreComm"); Focal Communications Corporation ("Focal"); Global NAPs, Inc. ("GNAPS");(9) Intermedia Communications, Inc. ("Intermedia"); Level 3 Communications, Inc. ("Level 3");(10) MCI WorldCom; NEVD of Massachusetts, LLC ("NEVD"); PaeTec Communications, Inc.; Prism Operations, LLC ("Prism");(11) RCN-BecoCom, LLC ("RCN"); and RNK, Inc. ("RNK").(12) Bell Atlantic filed reply comments on March 15, 1999.(13)

On March 23, 1999, the Department issued MCI WorldCom, D.T.E. 97-116-B (1999) ("Escrow Order") granting Bell Atlantic interim relief from our prior Order and authorizing Bell Atlantic to place disputed reciprocal compensation payments in escrow, pending a final decision on its Motion for Modification. That Order scheduled oral argument on the contending claims, but argument was later postponed.(14)

On March 31, 1999, RNK filed a Motion for Clarification, Suspension of Escrow Order, and Reconsideration of Escrow Order ("RNK Motion for Clarification"). RNK seeks clarification on five points: (1) the relationship of the Escrow Order and specific terms contained in RNK's interconnection agreement with Bell Atlantic concerning the identity of the escrow agent, the rate of interest on the escrow account, and the responsibility for escrow costs; (2) whether escrow authority applies to

reciprocal compensation accrued only after March 23, 1999, the date of the Escrow Order; (3) whether escrow applies to reciprocal compensation due and payable for traffic only in excess of the 2:1 ratio; (4) whether the Escrow Order uses differing meanings for the terms "Internet-bound traffic" and "ISP-bound" traffic; and (5) whether the authority to escrow granted to Bell Atlantic should even apply to CLECs, like RNK, which provide multiple telecommunications services besides simply serving ISPs (RNK Motion for Clarification at 4-8). Until the Department rules on these issues, RNK argues, the Escrow Order should be suspended (id. at 8-10). RNK also argues that "extraordinary circumstances," particularly the escrow's adverse financial effect on small start-up CLECs, dictate that the Department reconsider the Escrow Order (id. at 10-11). Responses to RNK's Motion for Clarification were filed on April 5, 1999 by Bell Atlantic, GNAPS, and the Coalition.

Finally, on April 16, 1999, GNAPS filed a complaint against Bell Atlantic. The complaint seeks adjudication of GNAPS's claimed right to receive reciprocal compensation payments for calls that Bell Atlantic customers make to ISPs, where such customers receive their dial-in connections to the public switched network from GNAPS.

Comments have been extensive. After reviewing them, the Department sees no need for the oral argument originally scheduled in its Escrow Order of March 23. Therefore, Bell Atlantic's Appeal of the Hearing Officer's Ground Rules is dismissed as moot. RNK's Motion for Clarification is addressed in the context of our ruling on Bell Atlantic's Motion for Modification.(15)

III. POSITIONS OF THE PARTIES AND COMMENTERS

A. Bell Atlantic

Bell Atlantic claims that the Department's Order in MCI WorldCom must be modified because its conclusion that ISP-bound traffic was local was based on mistakes of both fact and law regarding jurisdiction over ISP-bound traffic (Motion for Modification at 8). According to Bell Atlantic, the FCC in its Internet Traffic Order determined, contrary to the Department's finding in MCI WorldCom, that an ISP-bound call cannot be separated into two components but is a single, uninterrupted transmission from a caller to a remote website (id.). Bell Atlantic contends that because ISP-bound traffic is not local, such traffic is not subject to reciprocal compensation under the Act, the FCC's rules, or any of Bell Atlantic's interconnection agreements(16) (id. at 9). Moreover, Bell Atlantic argues, the FCC, contrary to the Department's October Order and the CLECs' present claim, rejected the argument that because ISPs have local telephone numbers, calls placed to those numbers are local calls (id.). Bell Atlantic indicates the fact that the FCC exempted enhanced service providers ("ESPs") from access charges indicates its understanding that ESPs in fact use interstate access service; otherwise, the exemption would not be necessary (id.). Furthermore, Bell Atlantic argues, the FCC's recent GTE and Internet Traffic Orders have made it clear that Internet-bound traffic is interstate and therefore has no severable local component (id. at 10).

Concerning its contracting intent, Bell Atlantic states that it has not agreed to pay reciprocal compensation for ISP-bound traffic (Bell Atlantic Reply Comments at 8). Bell Atlantic argues that as a threshold legal matter and as a matter of contract law, the factual issues raised in the pleadings filed in opposition to the Motion for Modification may not constitute grounds for a determination that reciprocal compensation should be imposed for ISP-bound traffic under the interconnection agreements (id.). Bell Atlantic contends that when the wording of a contract is unambiguous, the contract must be enforced according to its terms (id. at 8-9). Because the Department has previously determined the agreements at issue to be unambiguous, Bell Atlantic argues that the Department should not now admit parole or extrinsic evidence relating to the parties' intent regarding the agreements (id.). Bell Atlantic argues that public policy and the impact on CLECs and ISPs have nothing to do with what the contracts actually say (id.). Accordingly, Bell Atlantic contends that ISP-bound traffic is not eligible for reciprocal compensation under Bell Atlantic's interconnection agreements and, further, that the CLECs have already received substantial compensation to which they are not entitled under those agreements (Bell Atlantic Motion at 10).

With respect to continued reciprocal compensation for ISP-bound traffic, Bell Atlantic states that it does

not dispute that the FCC has not precluded the payment of reciprocal compensation for ISP-bound traffic in all circumstances, but that the Department's conclusion in MCI WorldCom was not based on any of the grounds permitted by the FCC (Bell Atlantic Reply Comments at 5). According to Bell Atlantic, the FCC stated that state commissions that have ordered the payment of reciprocal compensation for Internet-bound traffic might conclude, depending on the basis of those decisions, that it is not necessary to revisit those determinations (id. at 6). Bell Atlantic notes, however, that MCI WorldCom did not rely on any of the other bases that the FCC recognized (id.). Bell Atlantic contends, in the alternative, that if the Department wishes to consider whether reciprocal compensation should continue to be imposed for Internet-bound traffic, the Department must resolve the disputed factual assertions raised by the parties in an adjudicatory proceeding that permits the parties to present evidence (id.).

B. CLECS

First, the CLECs point out that the FCC explicitly stated that "nothing in this [Internet Traffic Order] precludes state commissions from determining, pursuant to contractual principles or other legal or equitable considerations, that reciprocal compensation is an appropriate interim inter-carrier compensation rule pending completion of the [FCC's] rulemaking" (see e.g., Intermedia Comments at 5; Prism Comments at 3; Focal Comments at 11; NEVD Comments at 8, citing Internet Traffic Order at ¶ 27).

Next, the CLECs argue that the FCC's ruling on the jurisdictional analysis of calls to ISPs in its Internet Traffic Order in no way requires the Department to revisit MCI WorldCom; rather, in their view, it reaffirms the Department's Order (see e.g., AT&T Comments at 3; Coalition Comments at 3; MCI WorldCom Comments at 7-8; CoreComm Comments at 1; RNK Comments at 2). Level 3, for instance, argues that "the Department was quite clear that the determination it was making was for the purpose of classifying the traffic in the Agreement. It was not making a jurisdictional decision." Level 3 also argues that the FCC made it clear that its jurisdictional decision on ISP-bound traffic should not interfere with the decision made by a state commission (Level 3 Comments at 5; see also Choice One Comments at 3-5). According to the CLECs, the Department did not declare that ISP-bound traffic is "local" in the sense of "jurisdictionally intrastate," but only that those calls are more appropriately viewed as local traffic instead of long distance calls. The CLECs contend, therefore, that there is no conflict between MCI WorldCom and the FCC's Internet Traffic Order (see e.g., GNAPS Comments at 6; RCN Comments at 2, citing MCI WorldCom, D.T.E. 97-116, at 11-13; PaeTec Comments at 3). The CLECs maintain that Bell Atlantic chooses to focus only on the FCC's decision concerning jurisdiction, whereas the FCC specifically recognized the limit of that analysis (MCI WorldCom Comments at 10; CoreComm Comments at 3, citing Internet Traffic Order at ¶ 20) by stating that "the Commission continues to discharge its interstate regulatory obligations by treating ISP-bound traffic as though it were local" (MCI WorldCom Comments at 11; RCN Comments at 4, citing Internet Traffic Order at ¶ 5).

CoreComm asserts that the FCC divided the analysis in its Internet Traffic Order into two parts, "one focusing on the nature of ISP-bound traffic for the purpose of resolving jurisdictional issues and the other focusing on the separate issue of what sort of regulatory treatment should be accorded such calls" (CoreComm Comments at 3). CoreComm supports this argument by quoting the first sentence of the FCC's Internet Traffic Order: "Identifying the jurisdictional and regulatory treatment of ISP-bound communications requires us to determine how Internet traffic fits within our existing regulatory framework" (CoreComm Comments at 4, citing Internet Traffic Order at ¶ 1 (emphasis added by CoreComm)). CoreComm argues that the FCC recognizes the difference between "jurisdictional analysis" and "regulatory treatment" (CoreComm Comments at 4; see also Focal Comments at 10-11).

The CLECs also contend that § 252(e)(1) of the Act gives the states the authority to interpret the interconnection agreements that they approved (see, e.g., RNK Comments at 3; NEVD Comments at 3). The CLECs base their arguments on the FCC's statement that "[n]othing in this [Internet Traffic Order], therefore, necessarily should be construed to question any determination a state commission has made, or may make in the future, that parties have agreed to treat ISP-bound traffic as local traffic under existing interconnection agreements" (see e.g., Coalition Comments at 4; PaeTec Comments at 6 n.16; Level 3 Comments at 5; RCN Comments at 3-4; NEVD Comments at 4, each citing Internet Traffic Order at ¶ 24). MCI WorldCom contends that "under well-established principles of contract

construction, parties' intent is determined with respect to the time of contracting, not at some subsequent date" and at the time when it entered into its interconnection agreement with Bell Atlantic, both it and Bell Atlantic intended to treat calls to ISPs as local traffic subject to reciprocal compensation (MCI WorldCom Comments at 14; see also AT&T Comments at 4). In addition, the CLECs argue that the FCC identified "illustrative" factors(17) a state commission could consider when determining whether the parties to an interconnection agreement intended to subject ISP-bound traffic to reciprocal compensation. Furthermore, the CLECs argue, the Department previously considered these factors and correctly concluded that ISP-bound traffic is subject to reciprocal compensation under existing interconnection agreements (see e.g., MCI WorldCom Comments at 12-14; RCN Comments at 5-7; Intermedia Comments at 4-5; Focal Comments at 5; PaeTec Comment at 5). MCI WorldCom, for instance, contends that the Department, in MCI WorldCom, considered the factors the FCC identified in the Internet Traffic Order at ¶ 24, and reached a conclusion that Bell Atlantic and MCI WorldCom agreed to compensate each other for termination of all local calls by finding that (1) the characteristics of ISP-bound traffic are identical to any other local calls, (2) Bell Atlantic and all other carriers charge their customers local rates for ISP-bound traffic, (3) the ISPs' premises are located within the LATA, thus meeting the definition of local traffic in its Agreement,(18) and (4) that ISP-bound traffic is subject to reciprocal compensation obligation for the same reasons that other kind of calls -- such as calls to private networks -- are subject to reciprocal compensation (MCI Comments at 3-4, 12-13, citing MCI WorldCom at 10). Accordingly, while the FCC and the Department may consider other compensation mechanisms in the future, reciprocal compensation under the existing interconnection agreement should not be modified (Level 3 Comments at 7; Prism Comments at 6-7).

AT&T argues that existing interconnection agreements should remain in full force, pending renegotiation by the parties and the FCC's completion of its rulemaking on inter-carrier compensation for ISP-bound traffic (AT&T comments at 6, citing the AT&T-Bell Atlantic Interconnection Agreement § 7.3 (providing "Parties shall negotiate in good faith such affected provisions with a view toward agreeing to acceptable new terms as may be required or permitted as a result of such legislative, regulatory, judicial or other legal action")).

The CLECs bolster their argument concerning intent by noting that the telecommunication industry's custom and usage regarding ISP-bound traffic at the time the interconnection agreements were executed support their assertion that calls to ISPs are considered local and, therefore, subject to reciprocal compensation.(19) Even Bell Atlantic, the CLECs contend, recognized that calls to ISPs were local as it aptly demonstrated in its formal "Reply Comments" submitted in the FCC's proceeding to develop rules to implement §§ 251 and 252 of the Act (see e.g., Level 3 Comments at 5-6; GNAPS Comments at 3-4, citing In Re: Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC docket no. 96-98, Reply Comments of Bell Atlantic at 21 (submitted May 30, 1996)). Arguing in favor of an actual compensation mechanism as opposed to a bill and keep arrangement supported by the CLECs, Bell Atlantic declared that (1) calls to ISPs are local, (2) subject to reciprocal compensation, and (3) the rates Bell Atlantic proposed for such reciprocal compensation were reasonable (see e.g., GNAPS Comments at 3-4; Focal Comments at 8; NEVD Comments at 12, citing In Re: Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC docket no. 96-98, Reply Comments of Bell Atlantic at 21 (submitted May 30, 1996)). The CLECs argue that the fact that Bell Atlantic did not accurately predict the impact of its proposal (which eventually prevailed) should not provide a valid basis for Bell Atlantic to repudiate its agreements (Level 3 Comments at 6). While Bell Atlantic may not have foreseen the traffic imbalance caused by many ISPs opting to take service from a CLEC, Bell Atlantic should, as the party with the much more substantial sales, marketing, and technical experience, be assigned any risks associated with its poor foresight (NEVD Comments at 13).

GNAPS further supports the CLECs argument that Bell Atlantic considered dial-up ISP calls as local by citing to Bell Atlantic's "comparably efficient interconnection" ("CEI") plans for its own Internet access service (see e.g., GNAPS Comments at 9; Focal Comments at 8-9). In its CEI plans, Bell Atlantic stated that "[f]or dial-up access, the end-user will place a local call to the Bell Atlantic Internet hub site from either a local residence or business line or from an Integrated Services Digital Network ("ISDN") service" (see e.g., GNAPS Comments at 9, citing Amendment to Bell Atlantic CEI Plan to Expand Service Following Merger with NYNEX at 2, CCB Pol 96-09 (filed May 5, 1997); Focal Comments

8-9). Accordingly, GNAPS asserts that it is obvious that Bell Atlantic understood fully the general industry practice on treating ISP-bound calls as local (GNAPS Comments at 9-10)

PaeTec argues that Bell Atlantic, in its interconnection agreements, could have specifically carved out ISP-bound traffic as non-local in the same manner as other traffic with all the characteristics of local calls was excluded from reciprocal compensation obligations (PaeTec Comments at 6 (claiming that the Bell Atlantic-MCI WorldCom interconnection agreement specifically identifies Feature Group A traffic as not subject to reciprocal compensation)). Because ISP-bound traffic was not excluded, PaeTec argues, Bell Atlantic's attempt to exclude such traffic now from its reciprocal compensation obligations is entirely a post hoc rationale now that the balance of this traffic goes against it (id. at 6-7). Moreover, PaeTec states, Bell Atlantic has a serious credibility problem with respect to this issue: if Bell Atlantic now is to be believed that it never intended to include ISP-bound traffic within the reciprocal compensation provisions of its interconnection agreement with MCI WorldCom, then one must also believe that Bell Atlantic intended to transport and terminate all traffic originated by a MCI WorldCom customer to a Bell Atlantic customer that happened to be an ISP, without any compensation at all from MCI WorldCom (id. at 8). RNK argues that another indication that Bell Atlantic intended ISP-bound traffic to be "local" for reciprocal compensation purposes is the fact that Bell Atlantic has paid for and accepted credit for local traffic that included ISP-bound calls (RNK Comments at 2). RNK thus makes a "course of conduct under the contract" argument to supplement the "usage of the trade" argument raised by GNAPS (GNAPS Comments at 9-10).

With respect to state law grounds, the CLECs argue the Department has authority to require reciprocal compensation for Internet-bound traffic as acknowledged in MCI WorldCom (Prism Comments at 3-4; RNK Comments at 3; NEVD Comments at 4). Prism argues that there is no federal law that prohibits applying reciprocal compensation to non-local calls, and points to the FCC's statement that "[i]n so construing the statutory obligation, we did not preclude parties from agreeing to include interstate traffic (or non-local intrastate traffic) within the scope of their interconnection agreements, so long as no Commission rules were otherwise violated" for support (Prism Comments at 7, citing Internet Traffic Order at ¶ 24); see also, NEVD Comments at 7). In addition, the CLECs also argue that applying the fact that ISP-bound traffic has been exempt from interstate access charges establishes that such traffic is subject to reciprocal compensation (see e.g., Prism Comments at 6; PaeTec Comments at 5; NEVD Comments at 6). The CLECs argue that, pursuant to the FCC's Internet Traffic Order, "state commissions, not this Commission, are the arbiters of what factors are relevant in ascertaining the parties' [contracting] intentions" (PaeTec Comments at 9, citing Internet Traffic Order at ¶ 24). Referring to G.L. c. 106, § 1-205(5), PaeTec asserts that because there are no express or implied terms in the interconnection agreement excluding the usage of trade that a telephone call to the telephone number of an ISP terminates when the call is answered, that usage of trade must be considered part of the definition of reciprocal compensation in the interconnection agreement" (PaeTec Comments at 10-11).

The Coalition asserts that if calls to ISPs are interstate as explained in FCC's ruling, then one may need to question how Bell Atlantic can carry such traffic because it currently lacks the authority to do so until it meets the requirements § 271 (Coalition Comment at 6). In addition, the Coalition contends that if the Department were now to adopt the single transmission analysis used in the FCC's ruling, then serious questions would arise concerning the consistency of this new analysis with the segmented transmission analysis used in Voice Mail, D.P.U. 97-101 (1998) (id. at 7). Lastly, the Coalition points out that there is "a significant question of estoppel and reliance on such practice by the CLECs that have expended very significant financial and human resources based upon the established practice that traffic to ISPs requires ILEC payment of reciprocal compensation" (id. at 7).

Regarding public policy concerns, RNK asserts that growth of the Internet is in the public interest and that the absence of reciprocal compensation will result in irreparable harm to CLECs and Massachusetts' consumers (RNK Comments at 5-6). The CLECs also contend that sound economic policy and regulatory fairness require full compensation for their significant network costs related to delivering calls to ISPs (Cablevision Letter at 2; GNAPS Comment at 4; Focal Comments at 7; RNK Comments at 6; NEVD Comment at 14).

Concerning the due process issues, MCI WorldCom contends that if the Department were to reconsider

any issue, the proper procedure would be for the Department to hold an evidentiary hearing in order to investigate the parties' intent regarding calls to ISPs at the time they entered into the interconnection agreements (MCI WorldCom Comments at 17-18). RCN argues that the Department should leave MCI WorldCom in full force pending the completion of evidentiary hearings on whether the Order continues to be valid (RCN Comments at 7). GNAPS asserts that if the Department wishes to make a re-determination on the intentions of the parties in the affected agreement, the Department should conduct an evidentiary hearing to explore how the factors identified in the FCC's Internet Traffic Order apply (GNAPS Comments at 8).

IV. ANALYSIS AND FINDINGS

- Effect of the Federal Communications Commission's Internet Traffic Order

on the Continued Validity of the Department's Order in MCI WorldCom

On February 26, 1999, the FCC declared that the 1996 Act, 47 U.S.C. sec. 251(b)(5), mandated reciprocal compensation for the transport and termination of *local* traffic *only*. The FCC further held that this mandate does not extend to ISP-bound traffic, because ISP-bound traffic is not local but is interstate *for purposes of the 1996 Act's reciprocal compensation provisions*. ISP-bound traffic is thus not subject to state enforcement under the 1996 on the grounds that it is local traffic. Internet Traffic Order at ¶¶ 12 and 26 n. 87.

In ruling in favor of Federal versus state regulatory jurisdiction over ISP-bound traffic and in construing 47 U.S.C. sec. 251(b)(5), the FCC focused on the"end-to-end" nature of the Internet communication. The initiating caller or customer is one "end" of the communication, and the terminating "end" is the web or other Internet site called by the customer. The FCC rejected arguments that would segment such traffic into intra- and inter-state portions and thereby also rejected a consequent, artificial segmentation of jurisdiction. Id. at ¶ 11. The FCC noted that it "analyzes the totality of the communication when determining the jurisdictional nature of a communication . . . [and] recognizes the inseparability, for purposes of jurisdictional analysis, of the information service and the underlying telecommunications." Id. at ¶ 13. The FCC considers each such commercial transaction as "one call" "from its inception to its completion" and accordingly rejects the jurisdictional limitation implied by arbitrarily isolating the initial part of the call from the rest of the stream of interstate commerce. Id. at ¶ 11.(20)

This line of analysis is certainly not surprising or even novel. For decades, decisional law has expansively analyzed questions of Federal versus state jurisdiction under the Commerce Clause, U.S. Const. Art. I, sec. 8, cl. 3, in this way. See, e.g., *Katzenbach* v. *McClung*, 379 U.S. 294 (1964) (practically unlimited view of the reach of Congress to local activity under the Commerce Clause if effect on interstate commerce can be posited). Unless and until modified by the FCC itself or overturned by a court of competent jurisdiction,(21) the FCC's view of the 1996 Act must govern this Department's exercise of its authority over reciprocal compensation; and the FCC so advises us. Internet Traffic Order at ¶ 27.

In October 1998, the Department had ruled on this very same, jurisdictional question in MCI WorldCom, D.T.E. 97-116.(22) On March 2, 1999, Bell Atlantic moved the Department to modify its Order in MCI WorldCom in light of the FCC's Internet Traffic Order. Bell Atlantic's Motion for Modification, at 10, states that ISP-bound traffic "is now, and always has been, interstate traffic . . . , and CLECs have received substantial compensation to which they are not entitled under those [i.e., their respective interconnection] agreements."

In MCI WorldCom, the Department construed the 1996 Act as conferring jurisdiction upon it to hear MCI WorldCom's complaint about interpretation of its interconnection agreement with Bell Atlantic. MCI WorldCom, D.T.E. 97-116, at 5. In exercising this

jurisdiction, the Department found "that a call from a Bell Atlantic[-Massachusetts] customer that is terminated by MCI WorldCom to an ISP is a 'local call,' for purposes of the definition of local traffic in

the Agreement [between Bell Atlantic and MCI WorldCom], and, as such, is eligible for reciprocal compensation." Id., at 5, 12-13. The Department noted that although the parties to the matter had "raised numerous issues," the Department's Order "*need only address* the question of *whether a call terminated* by MCI WorldCom *to an ISP is local*, thus qualifying it for reciprocal compensation under MCI WorldCom's interconnection agreement with Bell Atlantic." Id., at 6 (emphasis added). The Department's October Order thus confined its enquiry in this matter solely and exclusively to whether the ISP-bound traffic in question was "local" (i.e., intrastate) or interstate calling. This limitation of the basis for the Department's holding was express; and no other basis may be reasonably inferred from the Order. The October Order's effectiveness was thus ransom to the validity of its legal or jurisdictional conclusion.

To repeat, lest it be misunderstood: there was no other basis for the Department's holding in MCI WorldCom, D.T.E. 97-116. If that express legal basis were to prove untenable (as, in the event, it has), the effectiveness of the Order could not hold. And the Department recognized and acknowledged as much. Id., at 5 n. 11 and 6 n. 12.

As it happens, the Department's "two-call" theory cannot be squared with the FCC's "one-call" analysis. In rendering its "two-call" decision on reciprocal compensation for ISP-bound traffic, the Department twice acknowledged that FCC authority over the question may trump or supersede the Department's. Noting that the FCC might exercise its superior jurisdiction in a manner inconsistent with the Department's view of the law, the Department twice observed that, in that event, its own Order might require modification or change. Id. That twice-repeated caution(23) of the risk attendant on proceeding with reciprocal compensation for ISP-bound traffic before the FCC spoke appears to have been discounted or to have gone unheeded, if one is to judge from the numerous filings in response to Bell Atlantic's Motion for Modification. The substance of these filings is rehearsed above and need not be repeated here.

MCI WorldCom also expressed reservation that an enterprise "established solely (or predominately) for the purpose of funneling traffic to an ISP (particularly if that ISP is an affiliate) . . . may jeopardize its regulatory status and entitlements as a local exchange carrier." Id., at 13. The reservation was over the potential for "gaming" the regulatory scheme--with the consequence of siphoning off revenues but achieving no advance in true, efficient competitive entry.(24) This reservation was the subject of a motion for reconsideration by MCI Telecommunications Corporation, addressed by the Department in MCI WorldCom Technologies, Inc., D.T.E. 97-116-A (1999). The significance of the reservation was recognized in Internet Traffic Order, at ¶ 24 n.78.

In its October Order, the Department exercised its authority to resolve the MCI WorldCom complaint. The Department based its Order on the express *and exclusive* premise that "[a] call to an ISP is functionally two separate services: (1) a local call to the ISP, and (2) an information service provided by the ISP when the ISP connects the caller to the Internet." MCI WorldCom, D.T.E. 97-116, at 11, 12-13. To be sure, the FCC evidenced discomfort in trumping states' authority under Section 251(b)(5) and spoke equivocally about the effects of its declaratory order on decisions already taken by state commissions such as the Department. Internet Traffic Order at ¶¶ 27 and 28.(25) Even so, the message for the Department's MCI WorldCom Order cannot be mistaken.

The Department based its October Order on a mistake of law, i.e., on an erroneous characterization of ISP-bound traffic and on a consequently false predicate for concluding that jurisdiction was intrastate. By basing its jurisdictional analysis and finding on a mischaracterization of the nature of ISP-bound traffic, the Department exceeded its grant of state regulatory authority under the 1996 Act. Although the vague and equivocal terms of Paragraph 27 of the FCC's Internet Traffic Order may suggest that *some* state commissions "might conclude" that their reciprocal compensation orders remain viable, the FCC has, to put the matter baldly, rendered the DTE's October Order in MCI WorldCom-as a practical matter-a nullity. *Pace* the FCC's consoling notion that some states' orders might stand on state "contractual principles or other legal or equitable(26) considerations," Internet Traffic Order at ¶ 27, our Order stood *squarely, expressly, and exclusively* on a "two call" premise. That foundation has crumbled.(27) There is no alternative or supplemental finding in our October 1998 Order to rely on in

mandating continued reciprocal compensation for ISP-bound traffic. In view of the FCC's practical negation of the legal and analytic basis of our October Order, we see no logical alternative to vacating that Order in response to the Motion for Modification. We hereby vacate MCI WorldCom, D.T.E. 97-116.

Unless *and until* some future investigation of a complaint, if one is filed, concerning the instant interconnection agreement determines a different basis for such payments, there presently is no Department order of continuing effect or validity in support of the proposition that such an obligation arises between MCI WorldCom and Bell Atlantic. Although MCI WorldCom and Bell Atlantic may still disagree about reciprocal compensation obligations under their interconnection agreement, there is-*post* February 26, 1999-no valid and effective D.T.E. order still in place to resolve their dispute. Unsatisfying as it may be to say so, all that remains is a now-unresolved dispute.

The consequences may be adverse for enterprises that acted aggressively in reliance on the nullified and now-vacated Department decision in MCI WorldCom's favor (ignoring the Department's express warnings that its decision could be changed by FCC findings). But no amount of wishful thinking can our justify clinging to a vitiated decision; nor can it empower the Department to countermand what the FCC has determined. The attempt of some parties and commenters to base their arguments on the vague terms of Paragraph 27 of Internet Traffic Order is futile. If that paragraph has any effective meaning (a matter open to doubt, given the FCC's reference to its pending rulemaking), then surely it is that only those pre-26 February decisions by state commissions founded, not on a "two call" jurisdictional theory, but rather on state contract law or some "other legal or equitable considerations" *might yet* remain viable-at any rate, "depending on the bases of those decisions" and, of course, "pending the completion of the rulemaking" the FCC initiated. Internet Traffic Order at ¶ 27. It seems patent that the FCC had in mind state decisions already, or yet to be, taken(28)--and that only to the extent such decisions might fit this vague criterion. The Department's October Order was not so based-with the result that, were that Order not vacated, it would float, untethered, in a jurisdictional void. MCI WorldCom may choose to renew its complaint upon some claim that Massachusetts contract law "or other legal or equitable considerations" give rise to mutual obligation on its and Bell Atlantic's parts to pay reciprocal compensation for ISP-bound traffic, even despite the FCC's jurisdictional pronouncement.(29)

How useful such a renewal might be is not predictable. We suggest a perhaps more promising course below.

Pending, however, such a renewal of the complaint and ultimate resolution of the matter, Bell Atlantic's Motion for Modification of March 2, 1999 is granted, in that the Department's Order in MCI WorldCom, D.T.E. 97-116, is vacated. Although that Order adjudicated only the Bell Atlantic-MCI WorldCom dispute, it professed to have broader implication (see Section IV of the October Order); and so, the suggested, broader applicability of that Order must, since the issuance of Internet Traffic Order, be doubted. MCI WorldCom, D.T.E. 97-116 at 14. However, Bell Atlantic has acted, since the October Order, on the understanding that our findings in MCI WorldCom applied to all interconnection agreements; and now a corresponding but converse understanding based on the instant Order appears warranted. In fact, as far as reciprocal compensation payments not made to MCI WorldCom or other CLECs as of February 26, 1999 are concerned,(30) no currently effective Department order categorically requires Bell Atlantic to pay, in some way, for handling CLECs' ISP-bound traffic. Bell Atlantic has proposed making payments under its interconnection agreements at a ratio not in excess of 2:1(terminating-to-originating traffic).(31) This arrangement is reasonable for the nonce, i.e., until the dispute is settled.

Reciprocal compensation need not be paid for terminating ISP-bound traffic (on the grounds that it is local traffic), beginning with (and including payments that were not disbursed as of) February 26, 1999. Yet it still appears there were and may still be costs incurred by local exchange carriers in terminating such traffic. These transactions are not, however, "local" within the meaning of Section 5.8 of the Bell Atlantic-MCI WorldCom interconnection agreement. During negotiations, the parties to this agreement may determine that adequate pricing and other terms for these transactions are already governed by other contract provisions (and, certainly, arguments along these lines have been advanced in the CLECs'

comments; see Section III.B. *supra*). Or else, accepting or at least acquiescing in our view of Section 5.8 of the interconnection agreement, they may jointly conclude that the present agreement is silent on the point and needs to be supplemented to provide new terms for these mutual services. They are free to arrive at either judgment in coming to terms over the present dispute.(32) The best outcome is for Bell Atlantic and MCI WorldCom (or other CLECs where other interconnection agreements are concerned) to arrive at a resolution themselves. A far less satisfactory outcome is for the Department to have to interpret, or even to supply, terms, because the parties cannot agree. If the parties act wisely, it need not come to that, however. "Section 252 sets up a preference for negotiated interconnection agreements." *AT&T Corp.* v. *Iowa Utilities Board*, __ U.S. at __, 119 S.Ct. at 742 (Thomas, J., dissenting). Accordingly, we strongly advise potential complainants to follow this more promising and, in fact, statutorily preferred route *before* initiating any complaint based on "contractual principles or other legal or equitable considerations" with the Department. Moreover, it would be inefficient to have parallel complaint adjudications going on while mediation or arbitration is under way.

The FCC has tentatively concluded that "the inter-carrier compensation for this telecommunications traffic should be governed prospectively by interconnection agreements negotiated and arbitrated under sections 251 and 252 of the 1996 Act. Resolution of failures to reach agreement on inter-carrier compensation for interstate ISP-bound traffic then would occur through arbitrations conducted by state commissions, which are appealable to federal district courts." Internet Traffic Order at ¶ 30. Although the FCC has not formally adopted this tentative conclusion, in the currently unresolved of inter-carrier compensation for ISP-bound traffic in Massachusetts (i.e., apart from 2:1 payments for the nonce), we expect carriers to begin the voluntary negotiation process provided in section 252 of the 1996 Act, in order to establish, insofar as may be warranted, an inter-carrier compensation mechanism that would apply to compensation for all ISP-bound traffic that was not disbursed as of February 26, 1999, as well as all later-occurring ISP-bound traffic. If need be, we would be willing to provide a Department mediator to facilitate agreement, pursuant to the mediation provision of section 252(a)(2). If these negotiations do not resolve the present interconnection agreement dispute, the Department can arbitrate the matter under section 252(b). At that time, consistent with the discretion we have been given by the FCC (at least until the NPRM is settled), the Department would resolve whatever issues are put before it. But such formal process implies time, and time's value in business suggests that the parties would be better off themselves resolving the matters that divide them.

We note also that termination of the obligation for reciprocal compensation payments for ISP-bound traffic (because that traffic is no longer deemed local) removes the incentive for CLECs to use their regulatory status "solely (or predominately)" to funnel traffic to ISPs. This development also removes the need for any further Department inquiry into the regulatory status of certain CLECs, the question raised by the October Order. B. Competition and Efficient Entry

Having, then, assessed the effect of the FCC's declaratory ruling on our October Order, we turn to larger policy questions about the role of the Department in promoting *efficient* entry by new providers. The many comments filed in this case, asserting the importance of requiring reciprocal compensation for ISP-bound traffic to advance toward the policy goal of promoting competition in the local exchange, make clear that it is necessary for this Department to express to the negotiators its views on what competition really means.

Much futile debate in public utility regulation, especially in the current environment of developing markets, revolves around unexamined or sometimes distorted use of the terms 'competition' and its derivative 'competitive'. Loose, misleading, or self-serving meaning often underlies disputes and sows confusion.(33)

It underlies this dispute as well.

In so saying, we do not prejudge any formal renewal or prosecution of the dispute before us last October, where such a renewal might rest "on contractual principles or other legal or equitable considerations," as distinct from general policy arguments. But, as the parties and commenters in this docket will be negotiating, we believe it would be useful to highlight, in general terms, how the Department views

underlying policy and economic issues. Otherwise, the parties must negotiate in a vacuum. In addition, certain of the interconnection agreements are coming due for renewal, e.g., MediaOne's agreement.

The unqualified payment of reciprocal compensation for ISP-bound traffic, implicit in our October Order's construing of the 1996 Act, does not promote real competition in telecommunications. Rather, it enriches competitive local exchange carriers, Internet service providers, and Internet users at the expense of telephone customers or shareholders. This is done under the guise of what purports to be competition, but is really just an unintended arbitrage opportunity derived from regulations that were designed to promote real competition.(34) A loophole, in a word. There is, however-and we emphasize this point-nothing sinister or even improper about taking advantage of an opportunity such as the one presented by our October Order. One would not expect profit-maximizing enterprises like CLECs and ISPs, rationally pursuing their own ends, to leave it unexploited. Create an opportunity and inventive enterprise will seize upon it. It was ever thus. But regulatory policy, while it may applaud such displays of commercial energy, ought not create such loopholes or, once having recognized their effects, ought not leave them open.

Real competition is more than just shifting dollars from one person's pocket to another's. And it is even more than the mere act of some customers' choosing between contending carriers. Real competition is not an outcome in itself--it is a means to an end.(35) The "end" in this case is economic efficiency, which Baumol and Sidak have defined as "that state of affairs in which, as the specialized literature of welfare economics recognizes, no opportunity to promote the general welfare has been neglected. Such an opportunity is defined as the availability of a course of action that will benefit at least some individuals, in their own estimation, *in a way not achieved at the expense of others*." Toward Competition in Local Telephony, at 24 (emphasis added).(36)(37) Failure by an economic regulatory agency to insist on true competition and economic efficiency in the use of society's resources is tantamount to countenancing and, to some degree, encouraging waste of those resources. Clearly, continuing to *require* payment of reciprocal compensation along the lines of our October Order is not an opportunity to promote the general welfare. It is an opportunity only to promote the welfare of certain CLECs, ISPs, and their customers, at the expense of Bell Atlantic's telephone customers and shareholders.

The Department has consistently rejected attempts over the years to make some customers and competitors better off at the expense of others, all in the name of promoting competition. For example, when the propriety of stranded cost recovery was being debated for the electric industry, the Department (with the sanction of the Supreme Judicial Court and of the General Court(38)) found that electric companies should have an opportunity to recover all of their prudently-incurred, non-mitigable stranded costs. This decision was (and still is) opposed by some on the claim that it purportedly reduces the benefits of competition; but the Department has rejected the notion that the mere shifting of costs to other customers or shareholders can be considered a "benefit" of competition. Similarly, in its recent decision in the natural gas unbundling docket, the Department stated:

Our role is not to guarantee the success of entrants. Rather, our role is to put in place the structural conditions necessary for an efficient competitive process -- one where marketplace decisions of both producers and consumers are made on the basis of incremental costs. An efficient, unbundled gas industry framework would allow customers to compare the LDCs'[local distribution companies] incremental costs to marketers' incremental costs. However, this comparison cannot be made if historic cost commitments are imposed asymmetrically on the LDCs. In other words, if LDCs must include the inefficient costs of past commitments in their prices, while marketers are not required to include those costs for customers who choose to migrate, then marketplace decisions, at least in the near term, are being made on the basis of an asymmetric allocation of historic cost responsibility, not on the basis of incremental costs. This does not lead to efficient competition.

Gas Unbundling, D.T.E. 98-32-B, at 30 (1999) (footnote omitted).

As the FCC has noted, reciprocal compensation payments for ISP-bound traffic are probably not

cost-based. Internet Traffic Order at ¶ 29. The revenues generated by reciprocal compensation for that incoming traffic are most likely in excess of the cost of sending such traffic to ISPs.(39) ISP-bound traffic is almost entirely incoming, so it generates significant reciprocal compensation payments from Bell Atlantic to CLECs, an imbalance which enables CLECs to increase their profits or to offer attractive rates and services to Internet service providers-or to do both. Not surprisingly, ISPs view themselves as beneficiaries of this "competition" and argue fervently in favor of maintaining reciprocal compensation for ISP-bound traffic. However, the benefits gained, through this regulatory distortion, by CLECs, ISPs, and their customers do not make society as a whole better off, because they come artificially at the expense of others.

Where an increase in income results from regulatory anomaly, rather than from greater competitive efficiency in the marketplace, a regulator is well advise to take his thumb off the scale. We do so today. Arguing that we should not correct the distortions created by reciprocal compensation payments because they benefit ISPs and their customers is much like saying that one should not encourage people to quit smoking, and so avoid adverse personal and public health consequences, merely because some members of society make a living growing tobacco. Decisions like this should be driven by concerns for overall societal welfare-and not by concern for preserving the hothouse environment of an artificial market niche.(40)

C. A Further Word about the Department's October Order

The foregoing analysis makes clear how the FCC's Internet Traffic Order affected MCI WorldCom, D.T.E. 97-116, but may raise the question of why, in the first place, we required Bell Atlantic last October to pay reciprocal compensation for ISP-bound traffic. We did so *not* because we felt that it was a good policy or that it promoted competition, *but* because we felt bound by the then-current state of decisional law, relying to a large degree on the FCC's own previous pronouncements to the effect that Internet calls represented two distinct services (particularly, the FCC's prior treatment of ESPs as discussed in Internet Traffic Order, at ¶ 5(41)). However, unease with the result did prompt the question of whether certain enterprises had nominally established themselves as CLECs "solely (or predominately)" to benefit from reciprocal compensation. That unease underlay the caution that the October Order would have to be reconsidered, were the FCC later to undercut its legal footing. In October, it appeared that the FCC's previous "two call" analysis was determinative of the issue. Then Internet Traffic Order clarified the FCC's earlier two-service analysis and fatally undercut our conclusion that ISP-bound traffic had to be deemed local under the interconnection agreement.

Some commenters have argued that Internet Traffic Order does not require us to modify our October decision. We disagree for the reasons already stated, but that it not the point. The real question for us is *not* whether the FCC's February decision *requires* us merely to modify our October decision, *but* whether we should cast about for some reason, any reason, to sustain that questionable result.(42) On the contrary, we view the FCC's decision as "liberating," in that it gives us the discretion to do what we would have liked to have been able to do back in October-namely, to get the parties to the interconnection agreement to set rationally based, economic bounds on reciprocal compensation payments for ISP-bound traffic. The negotiations we have directed should be able to accomplish just that.

In conclusion, we observe that there have been calls for regulators to apply a battery of telecommunications regulatory requirements, including access charges, universal service levies, and service-territory obligations, to the Internet and ISPs. We do not agree with this approach. As noted by the FCC, the Internet has been successful beyond the wildest imagining--in large part because it has generally operated outside of a confining regulatory framework. Internet Traffic Order at ¶ 6.

However, the Internet should not benefit from CLECs' and ISPs' "gaming" regulation, either. Certain CLECs and ISPs have figured out a way to use reciprocal compensation--a regulatory requirement originally designed to promote local telephone exchange competition for all customers--as a revenue source for increased profits, lower Internet access costs, and maybe even improved Internet access. But someone else is "picking up the tab." In the near-term, that "someone else" appears to be Bell Atlantic.

But *perhaps*(43), over the longer term, it could be Bell Atlantic's telephone customers under the price-cap regime, NYNEX Price-Cap Order, D.P.U. 94-50, at 181-83 (1995), if the Department were on its own to insist on imposing some other basis ISP-bound reciprocal compensation on the agreement and if that insistence amounted to an exogenous regulatory variable, imposed despite the FCC's jurisdictional declaration in Internet Traffic Order.

Perpetuating this regulatory distortion would not be rational: the Internet is powerful enough to stand on its own, without such effective subsidies. Ending this regulatory distortion would encourage *efficient* investment in Internet and other telecommunications technology. Efficient investment promotes real competition that benefits all customers. Few, if any, may have foreseen this potential for distortion when the 1996 Act became law. But the FCC's negation of the legal basis for MCI WorldCom, D.T.E. 98-116, requires that we review and correct, not willfully cling to, demonstrated error. It would be regrettable to forego an opportunity to bring about a rational economic result. As the parties to the instant and other interconnection agreements attempt to sort out their disputes, they need to consider the Department's policy disposition if it is ultimately called upon to supply the solution.

V. ORDER

After due consideration, it is hereby

ORDERED: That the Motion for Modification, filed by New England Telephone and Telegraph Company d/b/a Bell Atlantic-Massachusetts on March 2, 1999, is ALLOWED in that the Order of October 21, 1998 in MCI WorldCom Technologies, Inc., D.T.E. 97-116, is hereby VACATED; and it is

FURTHER ORDERED: That the Motion for Clarification, Reconsideration and Suspension of Escrow Order, filed by RNK, Inc. on March 31, 1999 (which incorporates by reference the Letter for Specific and Expeditious Relief, filed by RNK, Inc. on March 31, 1999) is DENIED; and it is

FURTHER ORDERED: That New England Telephone and Telegraph Company d/b/a Bell Atlantic-Massachusetts shall not be required, until further notice from the Department or until negotiations result in different payment terms, to escrow any reciprocal compensation payments for Internet-bound traffic or be required to maintain the present escrow arrangement; and it is

FURTHER ORDERED: That New England Telephone and Telegraph Company d/b/a Bell Atlantic-Massachusetts shall not be required to make reciprocal compensation payments, in excess of a 2:1 terminating-to-originating traffic ratio, beginning with any payments made or to be made after (and including payments undisbursed as of) February 26, 1999.

By Order of the Department,

_____

James Connelly, Commissioner

_____

W. Robert Keating, Commissioner

_____

Paul B. Vasington, Commissioner

Pursuant to § 252(e)(6) of the Telecommunications Act of 1996, appeal of this final Order may be taken to the federal District Court or the Federal Communications Commission. Timing of the filing of such appeal is governed by the applicable rules of the appellate body to which the appeal is made, or in the absence of such, within 20 days of the date of this Order.

CONCURRING AND DISSENTING OPINION OF JANET GAIL BESSER, CHAIR AND EUGENE J. SULLIVAN, JR., COMMISSIONER

I. INTRODUCTION

Although we agree that the FCC's Internet Traffic Order invalidated the factual two-call premise of the Department's October Order, we disagree with the majority's conclusion that this invalidation automatically serves to relieve Bell Atlantic from any and all obligations to pay compensation for ISP-bound traffic terminated by CLECs. D.T.E. 97-116-C at 25, 40. For the reasons stated below, we believe that the Department should determine whether existing interconnection agreements require the parties to pay reciprocal compensation for this traffic. In addition, we would have required Bell Atlantic to continue to escrow the disputed payments while this matter is determined. Finally, we would strongly encourage the disputants to negotiate new commercial arrangements regarding this traffic. Accordingly, we concur in part, and dissent in part from the majority's decision.

II. DISCUSSION

A. The Department's October Order

The Department's October Order explicitly and clearly limited the basis for its conclusion that calls terminated by CLECs to ISPs qualified for reciprocal compensation by determining only that such calls were "local." MCI WorldCom at 6. Although the parties in that proceeding raised numerous issues, including various substantive policy and economic reasons for paying reciprocal compensation, the Department never explored these issues through hearings and discovery. Id. The October Order made no findings with respect to any other bases for reciprocal compensation nor did that Order specifically claim that other bases did not exist. Id. Rather, the October Order clearly determined, relying solely on a two-call analysis,(44) that ISP-bound traffic constitutes "local" traffic thus "qualifying it for reciprocal compensation." Id. at 12-13.

B. The Effect of the Internet Traffic Order on the Department's October Order

On February 26, 1999, the FCC determined that ISP-bound traffic was considered interstate based on a one-call analysis. Internet Traffic Order at ¶¶ 1,3. We agree with the majority that this decision removes the basis we used to support our conclusions in the October Order. However, we disagree with the majority's view of the immediate consequences of the Internet Traffic Order for our October Order. Without the local call basis, and without deciding the validity of any other potential bases, the majority concludes that Bell Atlantic is no longer obligated to pay reciprocal compensation for ISP-bound traffic. D.T.E. 97-116-C at 25, 40.

The conclusion that Bell Atlantic is no longer obligated to pay reciprocal compensation ignores the fact that Bell Atlantic had been paying reciprocal compensation well before issuance of the October Order. MCI WorldCom at 1-2, n.6. Thus, if our October Order is in fact a "nullity"(45) as the majority states, D.T.E. 97-116-C at 24, then the logical conclusion would be that Bell Atlantic should revert back to paying full reciprocal compensation pursuant to its interconnection agreement until such time as the Department determines whether other legitimate sources of support for this obligation exist.(46) Internet Traffic Order at ¶ 24.

Moreover, we do not find anything in the Internet Traffic Order that supports the conclusion that MCI WorldCom should be vacated. D.T.E. 97-116-C at 40. We do not agree that the MCI WorldCom Order no longer gives rise to any rights or obligations; rather, we believe that the MCI WorldCom Order was

valid at the very least until issuance of the Internet Traffic Order.(47) We therefore disagree with the majority's decision that Bell Atlantic is not required to pay funds due before issuance of the Internet Traffic Order. D.T.E. 97-116-C at 28 n. 30.

Finally, we also strongly disagree with the majority's suggestion that the Internet Traffic Order may have eliminated any and all obligations for Bell Atlantic ever to have paid any reciprocal compensation for ISP-bound traffic. While we may agree that Bell Atlantic's obligation to pay reciprocal compensation for this traffic was called into question on February 26, 1999, that ruling merely changed the state of the law from that date forward. Reciprocal compensation paid from Bell Atlantic to the CLECs before that date was made pursuant to valid, legal obligations, consistent with state policy, and we disagree with any intimations to the contrary by the majority.

The Internet Traffic Order requires the Department to resume the investigation we thought we had concluded in October 1998. The FCC recognized that this might be the case for a number of state commissions, stating that it

recognize[s] that our conclusion that ISP-bound traffic is largely interstate might cause some state commissions to *re-examine their conclusion* that reciprocal compensation is due to the extent that those conclusions are based on a finding that this traffic terminates at an ISP server, but nothing in this Declaratory Ruling precludes state commissions from determining, pursuant to contractual principles or other legal or equitable considerations, that reciprocal compensation is an appropriate interim inter-carrier compensation rule pending completion of the rulemaking . . . . (emphasis added).

Internet Traffic Order at ¶ 27.

The majority views the authority granted to state commissions in ¶ 27 as "vague" and "equivocal." D.T.E. 97-116-C at 24. However, we believe that this interpretation is not warranted. First, we have statutory obligations to fully investigate and adjudicate disputes subject to our jurisdiction. G.L. c. 30A; see also G.L. c. 159, §§ 12(d), 16, 19, 20. We should not prejudge whether arguments yet to be put forth by litigants have or lack merit without the benefit of a complete record developed with the fundamental due process rights of cross-examination and rebuttal. Second, the majority chooses to read ¶ 27 in light of Commissioner Michael K. Powell's concurrence. However, a concurring opinion (or, we acknowledge, a dissenting one for that matter) does not make the law. Consequently, we would accept the FCC's majority view and the authority it grants to state commissions as controlling until lawfully set aside, either by a reviewing court or a subsequent FCC decision. We note the difference between a suggestion that we "might" want to or need to "re-examine" our earlier conclusion, and an order from the FCC or other appellate body vacating, nullifying, remanding, or overruling our MCI WorldCom decision. Furthermore, we are buttressed in our view that ¶ 27 contains more than "a consoling notion," D.T.E. 97-116-C at 24, by the fact that, of the eleven state commissions that have considered the reciprocal compensation issue since the Internet Traffic Order, none have found that it is dispositive of this issue nor have any determined that LECs' existing obligations to pay reciprocal compensation should be changed.(48)

C. The Effect of the Internet Traffic Order on the Escrow Order

Our reasoning with respect to Bell Atlantic's reciprocal compensation obligations in the wake of the Internet Traffic Order does not lead us to conclude that we ought to require Bell Atlantic to pay reciprocal compensation for ISP-bound traffic to the CLECs during the completion of this proceeding or for the pendency of a new one. Although we agree that the FCC now has final jurisdiction to regulate and establish a compensation mechanism for this traffic, the FCC recognized that it has no regulations currently in place concerning these issues and issued an NPRM to rectify the situation. Internet Traffic Order at ¶¶ 1, 9, 21; NPRM at ¶¶ 28-36. However, for the interim period, the FCC made it clear that states could continue to determine how compensation for this traffic should be structured. While the Internet Traffic Order grants broad discretion over this compensation issue to the states for this interim period, this discretion is not unlimited. Thus, while it may be appropriate for a state to continue

reciprocal compensation for contractual, policy or equitable considerations, or to develop and implement some other inter-carrier compensation mechanism, we have difficulty interpreting the FCC's order as authorizing a rate of "zero"(49) for this traffic, for the following two reasons. First, the Act requires local exchange carriers to compensate each other for the transport and termination of traffic that originates on one carrier's network and terminates on another carrier's network. 47 U.S.C. § 251(b)(5). Second, a carrier's transport and termination of this traffic has some non-zero associated costs, as the majority acknowledges.(50) D.T.E. 97-116-C at 28-29. Thus, we believe that inter-carrier compensation is due but recognize that the ultimate level of this compensation remains to be determined. Accordingly, we would have continued escrow in recognition of the legitimate dispute regarding these funds and to preserve them for immediate payment upon final decision or settlement. Accord D.T.E. 97-116-B (authorizing Bell Atlantic to escrow certain reciprocal compensation payments because escrow constitutes an accepted method to preserve disputed payments during a commercial dispute, and because various interconnection agreements require escrow of funds in the event of a dispute).

D. Discussion Concerning Negotiation and Settlement of this Dispute

While we agree with the majority that a negotiated settlement is the ideal outcome, we have concerns about the process that it would use to reach such a resolution. The process the majority articulates lacks any meaningful incentives for the parties to reach a settlement for two reasons. First, the elimination of Bell Atlantic's obligation to pay reciprocal compensation into escrow for ISP-bound traffic provides a sure recipe for delay and non-settlement because Bell Atlantic now has little incentive to negotiate(51) and the CLECs have reduced leverage. Second, without an active adjudication proceeding concurrent with the negotiation/mediation/arbitration process established by § 252 of the 1996 Act, no route exists for the Department to end the dispute by issuing a final order.

E. Competition and Efficient Entry

Finally, we respond to the majority's colloquy on competition and efficient entry. In our view, this discussion is not directly related to the dispute before the Department in the instant proceeding. The substance of the discussion was not addressed directly by the parties or by the Commission as a whole in our deliberations. Therefore, we do not consider it to be a useful or appropriate addition to the Order.(52)

The majority does attempt to make a connection between the discussion in Section IV.B. and the issue of payment of reciprocal compensation for ISP-bound traffic, for example on page 32 where it states, "we do not prejudge any potential renewal of the dispute before us last October, where such a renewal might rest 'on contractual principles or other legal or equitable considerations' and not on substantive policy or economic issues." The majority appears to make this statement because it has reached a conclusion on the substantive policy and economic issues, to borrow its words, "in a vacuum."(53) In fact, one can infer from this conclusion that the majority has determined that there is no other basis for paying reciprocal compensation without consideration of evidence or argument.

Not only did the Department's October Order not reach the question whether there were bases for payment of reciprocal compensation other than the "local call" basis on which we relied then, but we also did not address any of the substantive policy or economic issues that, as a public utilities commission charged with protecting the public interest, it is our job to address. Doing our job - that is, taking evidence and hearing argument before reaching a reasoned decision - is not "cast[ing] about for . . . any reason to sustain [a] questionable result." Id. at 38. Rather, it is doing the work necessary to determine whether a result is, in fact, questionable or not questionable. As we have already indicated, continuing the current proceeding or opening a new one to address whether there are other bases - including consideration of substantive policy or economic issues - for payment of reciprocal compensation for ISP-bound traffic should be the Department's next step in resolving the current dispute.

Janet Gail Besser, Chair

Eugene J. Sullivan, Jr., Commissioner

SEPARATE STATEMENT OF JANET GAIL BESSER, CHAIR

In addition, while I question the value of including general pronouncements in an order such as this, I cannot let what I see as the majority's incomplete or inaccurate characterization of the Department's policy on competition go unaddressed. When the majority quotes from a previous Department order on the subject, I obviously take no issue with its restatement of Department policy. The Department's deliberations in Gas Unbundling, D.T.E. 98-32-B (1999), centered on the prerequisites and regulatory framework for promoting competition in the gas industry. The passage quoted by the majority on the role of entrants was part of a larger discussion of what constitutes full and fair competition -- an oft-stated goal of the Department in the context of both electric industry restructuring, Electric Restructuring, D.P.U. 95-30 (1995) and Electric Industry Restructuring, D.P.U. 96-100 (1997) and gas unbundling, D.T.E. 98-32-B at 4. There are also other individual statements in this section with which I agree.

However, I am concerned that the overall tone of the discussion does not capture the Department's policy on competition and efficient entry. In the current context, the passage from Gas Unbundling appears to be used to bolster criticism of new entrants for pursuing their own self-interest, despite the majority's assertions to the contrary.(54) The majority's narrow focus on the actions of new entrants here does not do justice to the Department's policy on competition, a broad and comprehensive policy that we have spent much of our time developing over the last several years to enable the utility industries to make the transition from traditional regulation to competitive markets and to open these markets to new entrants who will bring with them innovation and pressures for efficient operation. In my view, the Department's policy on competition is best and most succinctly captured in the principles we articulated in 1995 to guide the restructuring of the electric industry, D.P.U. 95-30, and used again in 1997 to lead off the Department's gas unbundling initiative. Department Letter to Gas Local Distribution Companies, D.T.E. 98-32 (July 18, 1997). In this Order, I fear that the majority has fallen into the trap it identified of the "[l]oose, misleading, or self-serving usage [that] often underlies disputes and sows confusion." D.T.E. 97-116-C at 31. Therefore, I must respectfully disagree with its overall characterization of Department policy on competition and efficient entry.

Janet Gail Besser, Chair

1. [1] MCI WorldCom, Inc. is the successor-in-interest to WorldCom Technologies, Inc. which is the successor-in-interest to MFS Intelenet Service of Massachusetts, Inc. ("MFS"). MFS is the entity that filed the original complaint in this docket.

2. [2] The Telecommunications Act of 1996 ("1996 Act") requires each incumbent local exchange carrier ("ILEC") (Bell Atlantic is the ILEC in Massachusetts) to open its monopoly networks to effective competition before that ILEC will be authorized to provide long-distance telecommunications services. Section 251(b)(5) of the Act requires all local exchange carriers to compensate each other for the transport and termination of local traffic that originates on one carrier's network and terminates on another carrier's network. 47 U.S.C. § 251(b)(5). The Federal Communications Commission has interpreted this provision as limiting reciprocal compensation payments to the transport and termination of *local* traffic. See 47 C.F.R. § 51.701.

3. There are several ways to describe dial-up, Internet calling. For consistency, we adopt the FCC's term 'ISP-bound traffic'.

4. [4] MCI also requested an extension of the judicial appeal period. The Department determined that this request was moot because the Department had previously granted Bell Atlantic's motion to extend the

judicial appeal period for all parties. MCI WorldCom, D.T.E. 97-116-A at 5 (February 25, 1999).

5. [5] Before the issuance of D.T.E. 97-116-A, the Department's Telecommunications Division issued data requests to ten CLECs to determine whether their customer bases were predominantly or solely ISPs, and whether any affiliate relationship exists between the CLECs and their ISP customers. Responses were received on or before January 20, 1999.

6. [6] Bell Atlantic does not indicate how it will differentiate ISP-bound traffic from local traffic carried on its network. Instead, Bell Atlantic sets up a 2:1 proxy by stating (1) that it will escrow amounts in excess of the 2:1 ratio, billed to any CLEC that terminates at least twice as much traffic as it sends to Bell Atlantic, but (2) that if a CLEC demonstrates that the imbalance is associated with "local" traffic, Bell Atlantic will pay reciprocal compensation charges for those calls (Motion for Modification at 2 n.3).

7. [7] Bell Atlantic notes that it filed the Motion for Stay to ensure that there would be "no ambiguity regarding [Bell Atlantic's] ability to withhold payments while the Department considers the Motion for Modification" (Motion for Stay at 3 n.2).

8. [8] In addition to parties to D.T.E. 97-116, the Department allowed comments from all facilities-based CLECs with interconnection agreements with Bell Atlantic.

9. [9] On March 4, 1999, GNAPS filed a petition for intervention. The Department has yet to rule on that petition.

10. [10] Level 3 is the successor-by-merger of XCOM Technologies, Inc., which is an intervenor.

11. Prism formerly was known as Transwire Operations, LLC.

12. [12] RCN, Choice One, the Coalition, Focal, GNAPS, NEVD, Norfolk, Prism, and RNK are not parties in D.T.E. 97-116.

13. [13] With the Department's permission, MCI WorldCom filed its response on March 15, 1999, and Bell Atlantic filed its reply to MCI WorldCom's response on March 18, 1999.

14. Bell Atlantic's appeal of the hearing officer ruling on oral argument need not be ruled upon, for today's Order renders it moot.

15. ''

16. Bell Atlantic indicates that its interconnection agreements only require reciprocal compensation for local traffic and that, to be "local," the call must originate and terminate within a given local access transport area ("LATA") in the Commonwealth of Massachusetts (id. at 9).

17. These "illustrative" factors are:

whether incumbent LECs serving ESPs [Enhanced Service Providers] (including ISPs) have done so out of intrastate or interstate tariffs; whether revenues associated with those services were counted as intrastate or interstate revenues; whether there is evidence that incumbent LECs or CLECs made any effort to meter this traffic or otherwise segregate it from local traffic, particularly for the purpose of billing one another for reciprocal compensation; whether, in jurisdictions where incumbent LECs bill their end users by message units, incumbent LECs have included calls to ISPs in local telephone charges; and whether, if ISP traffic is not treated as local and subject to reciprocal compensation, incumbent LECs and CLECs would be compensated for this traffic.

Internet Traffic Order at ¶ 24.

18. But see Internet Traffic Order, at ¶ 12 ("The fact that the facilities and apparatus used to deliver traffic to the ISP's local servers may be located within a single state does not affect our [FCC's] jurisdiction").

19. [19] The CLECs cite the Alabama Public Service Commission's recent conclusion "that the industry custom and usage at that time [the interconnection agreements under review herein were entered] dictated that ISP traffic be treated as local and, therefore, subject to reciprocal compensation." (AT&T Comments at 5; MCI Comments at 14-16, citing In Re: Emergency Petitions of ICG Telecom Group Inc. and ITC Deltacom Communications Inc., Alabama PSC docket 26619 at 25 (Mar. 4, 1999)).

20. The FCC characterizes the Internet as "a powerful instrumentality of interstate commerce." Internet Traffic Order at ¶ 6. Although the FCC admits its treatment of enhanced service providers ("ESPs") has something of an *intrastate* flavor, id. at ¶ 5, describing the Internet in this way virtually dictated the FCC's "one call" analysis. See also *Access Charge Reform*, CC Docket No. 96-262, First Report and Order, 12 FCC Rcd at 15983, 1631-33 (1997). The FCC has evidently determined to close this avenue of caselaw by distinguishing it, somewhat artificially, from its holding in Internet Traffic Order.

21. The recent "transferring [of] the States' regulatory authority wholesale to the Federal Communications Commission" for which Justice Thomas recently faulted the Court's majority in *AT&T Corp.* v. *Iowa Utilities Board* suggests that judicial reversal is unlikely. *AT&T Corp.* v. *Iowa Utilities Board*, __ U.S. __, at __, 119 S.Ct. 721, 741 (1999) (Thomas, J., dissenting).

22. Although numerous CLECs intervened in the proceeding, the Department had before it only the complaint of MCI WorldCom for alleged breach of contract by Bell Atlantic. The Department did, however, note the implications of its Order for other interconnection agreements. MCI WorldCom, D.T.E. 97-116, at 14. The contract in question was the "Interconnection Agreement between New England Telephone and Telegraph Company and MFS Intelenet of Massachusetts, Inc." dated 26 June 1996, and filed with the Department on 10 July 1996. Of particular note, are §1.38, the definition of 'Local Traffic', and §5.8, Reciprocal Compensation Arrangements - Section 251(b)(5).

23. The point was noted for a third time in MCI WorldCom Technologies, Inc., D.T.E. 97-116-A, at 2 (1999)

24. The matter of efficient entry by providers versus inefficient entry evidently weighs heavily upon the FCC as well. Internet Traffic Order at ¶ 6.

25. The equivocation is subtle but evident in the word "necessarily" as used in the penultimate sentence of ¶ 27. It did not escape the notice of one FCC commissioner. As he so often politely but cogently does, FCC Commissioner Michael K. Powell points out the essential incoherence of the majority's dicta about state decisions affected by the Internet Traffic Order: "Such reasonableness does little to preserve those state decisions most likely to be disturbed by our 'one call' jurisdictional analysis, namely, decisions based primarily or exclusively on a 'two-call' theory. In short, I think touching on the issue of shared jurisdiction muddles our conclusion that there is federal jurisdiction with respect to these questions." Internet Traffic Order, Concurrence of Commissioner Powell, text at n. 1. There is evident division among the FCC commissioners over the implications of this "shared jurisdiction theory" (to use Commissioner Powell's term). See Separate Statement of Commissioner Susan Ness, fourth paragraph (it "remains reasonable for the states . . . to treat this [ISP-bound] traffic as local"). It may be that the FCC's temporized ("muddled" in Commissioner Powell's terms) jurisdictional analysis is a reaction to the sizeable minority of the Supreme Court, who joined Justice Thomas in expressing dismay at the FCC's earlier incursion into a traditional state province in *AT&T Corp.* v. *Iowa Utilities Board* (see note 21 *supra*).

26. The FCC's use of the word "equitable" is ambiguous. It is not clear what equitable powers a regulatory agency could, in any event, claim to exercise, as it acts under a statutory grant. The FCC's

observation was evidently intended to cushion the jurisdictional blow, but all it does is muddle the message, as Commissioner Powell has observed. Internet Traffic Order, Concurrence of Commissioner Powell, text at n. 1.

27. The parties to this docket have diligently provided the Department with other states' decisions on reciprocal compensation rendered since Internet Traffic Order was issued. We have reviewed those filings. Other state commissions considered the effects of the FCC's ruling on *their* situations, on the interconnection agreements before them, and on prior decisions rendered. We have before us only *our own* October Order and the interconnection agreement construed by that Order. Useful as it has been to know what other states have made of the FCC's ruling, it is equally useful to recall Commissioner Powell's observation about the effects of that ruling: "Furthermore, having reviewed a number of the state decisions in this area, I am persuaded that the underlying facts, analytical underpinnings and applicable law vary enormously from state to state." Internet Traffic Order, Concurrence of Commissioner Powell, page 2.

28. The FCC's wording ("any determination a state commission has made, or may make in the future"), Internet Traffic Order at ¶ 24, must be read in light of the only plausible, saving grounds for such state determinations set out by the FCC in ¶ 27 (state decisions taken, before or after February 26, that rest on "contractual principles or other legal or equitable considerations"). State decisions whose conclusions "are based on a finding that this [ISP-bound] traffic terminates at an ISP server," id., are in another category, however. And our October Order falls into this latter group.

29. We do not, at this point, hazard a judgment whether such an alternative basis exists in the Bell Atlantic-MCI WorldCom interconnection agreement before us. If such a basis can be convincingly shown, then it would not be the Department's role to save contracting parties from later-regretted commercial judgments. See Complaint of A-R Cable Services, Inc., D.T.E. 98-52, at 5 n. 7 (1998).

30. This finding partly addresses RNK's Motion for Clarification. Bell Atlantic's Motion for Modification of our October Order intimates that reciprocal compensation payments made for ISP-bound traffic before February 26, 1999 were never truly due and owing under the interconnection agreement. Bell Atlantic notes that "there is no severable 'local' component of an Internet call but such traffic is now, and *always has been*, interstate traffic. . . . Internet-bound calls are not eligible for 'local' reciprocal compensation under BA-MA's interconnection agreements, and CLECs have received substantial compensation to which they are not entitled under those agreements." Bell Atlantic's Motion for Modification, at 10. Despite Bell Atlantic's intimation, the question of refund is not before us, and so we take no position on the status of payments made by Bell Atlantic for reciprocal compensation for ISP-bound traffic prior to February 26, 1999. To do so now would be premature-assuming that D.T.E. even has jurisdiction over the question of refunds and considering the instructions below as to negotiations, mediation, and, if it must come to that, arbitration. But we shall not require Bell Atlantic to make (i.e., to disburse) any payments that were not made as of that date. See text immediately *infra*.

31. In the current absence of a precise means to separate ISP-bound traffic from other traffic, we believe that Bell Atlantic's 2:1 ratio as a proxy is generous to the point of likely including some ISP-bound traffic. However, this 2:1 proxy is rather like a rebuttable presumption, allowing any carrier to demonstrate adduce evidence in negotiations, or ultimately arbitration, that its terminating traffic is not ISP-bound, even if it is in excess of the 2:1 proxy. Where disputes arise, however, the disputants are well advised to work the matters out between themselves, rather than bringing them to this forum after less-than-thorough negotiations.

32. See Internet Traffic Order, at ¶ 24 n. 77.

33. The frequent misuse and abuse of 'competition' and allied terms calls to mind the colloquy between Humpty Dumpty and Alice, when she objects to his arbitrary and idiosyncratic meanings for words:

"When *I* use a word," Humpty Dumpty said in rather a scornful tone, "it means just what I choose it to mean--neither more nor less."

"The question is," said Alice, "whether you *can* make words mean so many different things."

"The question is," said Humpty Dumpty, "which is to be master--that's all."

Lewis Carroll, *Through the Looking-Glass, and What Alice Found There* (Boston: Lee and Shepard, 1st U.S. edition, 1872) chapter VI , p. 124.

34. See, e.g., the career accomplishment cited in Bell Atlantic Reply Comments on Motion for Modification, March 15, 1999, Attachment A, Resume of David F. Callan: "Identified niche opportunity related to asymmetrical traffic patterns under Federally mandated interconnection architecture." The premise of a mandate, of course, no longer holds *post* Internet Traffic Order.

35. As noted by Justice Breyer in *AT&T Corp.* v. *Iowa Utilities Board*, "[t]he competition that the [1996] Act seeks is a process, not an end result." *AT&T Corp.* v. *Iowa Utilities Board*, Opinion of Breyer, J., __ U.S. at __, 119 S.Ct. at 751. When the exercise of regulatory authority artificially brings into play additional providers but some one else in the market is "picking up the tab" for those new players' entry, that is not competition. It is, rather, handicapping one horse so the others in the field may as likely cross the finish first, despite their otherwise slower speed. There is no real gain in the efficient deployment of society's resources and thus no net social gain. While some may make the case for incubating infant industries, the purportedly temporary "life-support" measures entailed in doing so often become necessities (even entitlements) that cannot, practically speaking, later be withdrawn.

In the case of reciprocal compensation for ISP-bound traffic, "shifting dollars from one person's pocket to another's" occurs when Bell Atlantic's reciprocal compensation payments are in excess of a CLEC's costs to terminate ISP-bound traffic. (The discussion in the text *infra* makes clear that we believe this result likely obtains. See also note 34 *supra* and note 39 *infra*.) In addition, Bell Atlantic contends that the reciprocal compensation payments it has made are in excess of the costs that Bell Atlantic avoids by no longer terminating this traffic. Therefore, Bell Atlantic is making payments to CLECs for recovery of costs that are not being incurred and is paying more than its own avoided-cost savings. As a result, Bell Atlantic's shareholders or telephone customers are losing money, and CLECs are either earning additional profits or passing through these "savings" to their own customers as *putative* benefits of competition. Such benefits are not related to any efficiencies achieved or value added by CLECs. They are simply the result of regulatory distortion.

36. See, also, Thomas J. Duesterberg and Kenneth Gordon, Competition and Deregulation in Telecommunications, p. 26 (1997), "Pricing policies and investment incentives for all parties, including the incumbents, must simultaneously be developed so as to create an efficient telecommunications system. Ideally, this means that prices of final goods and services, as well as of intermediate goods purchased by competitors, should reflect real economic costs."

37. It is perhaps not fashionable to quote him in a regulated industry, but Adam Smith put the matter justly in 1776:

No regulation of commerce can increase the quantity of industry in any society beyond what its capital can maintain. It can only divert a part of it into a direction into which it might not otherwise have gone; and it is by no means certain that this artificial direction is likely to be more advantageous to the society than that into which it would have gone of its own accord.

Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of the society, which he has in view. But the study of his own advantage naturally, or rather necessarily, leads him to prefer that employment which is most advantageous to the society.

Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (Oxford: University of Oxford, 1869), vol. I, bk. 4, ch. 2 (the chapter concerns restraints on imports, but the point is broadly suggestive in assessing proposed government actions).

38. The Supreme Judicial Court in *Massachusetts Institute of Technology* v. *Department of Public Utilities*, 425 Mass. 856, 866-67 (1997); and the General Court in St. 1997, c. 164.

39. Similarly, ISG-Telecom Consultants, Int'l., a Florida industry consultant that specializes in helping ISPs turn into CLECs, has characterized the income derived from reciprocal compensation as "gravy" income. See Bell Atlantic Reply Comments, March 15, 1999, Attachment F (Affidavit of Paula L. Brown), Subattachment C to Attachment F (tenth unnumbered page), copy of Internet communication of ISG-Telecom, entitled "Taking the Plunge from ISP to ISP/CLEC. Is it Right for You???", copyright 1996, 1997, 1998, 1999:

Although reciprocal compensation could be a new revenue source for the ISP/CLEC, we at ISG-Telecom NEVER recommend creating a business plan or business case model around reciprocal compensation. ISP/CLECs that choose to become CLECs to participate in reciprocal compensation should be aware of the current regulatory climate. Reciprocal compensation, in light of recent FCC considerations, should be considered "gravy" income ONLY [emphasis in original].

See also Internet Traffic Order, at ¶ 24 n. 78, wherein the FCC recognizes the question of consistency with the statutory scheme ("*e.g.*, definition of a carrier") of such "anomalous practices" as "free [I]nternet access while getting paid for it." In a word, "gravy."

40. See notes 34 and 39 *supra*.

41. See note 20 *supra*.

42. The situation is not without earlier parallel. The Department faced a similar choice and like counsel in 1994-95. The Department's policy regarding "environmental externalities" in electric regulation was overturned on purely legal grounds by the Supreme Judicial Court in *Massachusetts Electric Company* v. *Department of Public Utilities*, 419 Mass. 239, 243-50, 252 (1994) (imposing such externalities was "beyond the range of its statutory authority to do so"), the Department-barely a month after the Court had corrected it-flatly rejected counsel that it somehow cling to judicially discredited precedent. Boston Edison Company, D.P.U. 95-1-CC, at 12-14 (1995). We can be no less forthright here. A clean break with error is salutary.

43. We employ emphasis advisedly. Only where "regulatory, judicial, or legislative changes uniquely affecting the telecommunications industry" (and other stated cost changes) impose resultant additional cost can Bell Atlantic qualify for recovery under the exogenous cost adjustment provisions of its price cap mechanism. NYNEX Price-Cap Order, D.P.U. 94-50, at 181-83. Extra-statutory, voluntary contractual undertakings are another matter-and Bell Atlantic was and is free to choose such undertakings for its own business reasons, Internet Traffic Order at ¶ 24 n. 77. See, also, Complaint of A-R Cable Services, Inc., D.T.E. 98-52, at 5 n. 7; and see note 28 *supra*. Yet, negotiation or mediation may settle the question, and so it may not be presented for Department decision for arbitration.

44. We note this was not, contrary to the majority's assertion, a "mistake of law." D.T.E. 97-116-C at 24. In fact, the FCC had, on May 7, 1997, noted that "[w]hen a subscriber obtains a connection to an [ISP] via voice grade access to the public switched network, that connection is a telecommunications service and is distinguishable from the [ISP's] service offering." In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45, at ¶ 789, Report and Order (rel. May 7, 1997); see also Internet Traffic Order at ¶¶ 13-16. Accordingly, our October Order was consistent with existing law, subsequently changed, and was not a mistake of law.

45. Black's Law Dictionary (6th ed. 1991) defines the phrase "null and void" as meaning "that which binds no one or is incapable of giving rise to any rights or obligations under any circumstances . . . ."

46. We view this dispute as remaining active; in our view, MCI WorldCom need not re-file its complaint in order to re-invigorate this suit. Cf. D.T.E. 97-116-C at 25. However, we believe it would be a more efficient use of resources for the Department to re-notice these issues for resolution in the context of a generic adjudication applicable to all relevant interconnection agreements.

47. This has implications, for example, for RNK, which sought funds owing before issuance of the Internet Traffic Order (RNK Letter for Specific and Expeditious Relief dated March 31, 1999).

48. WorldCom, Inc. v. GTE Northwest Inc., "Third Supplemental Order Granting WorldCom's Complaint, Granting Staff's Penalty Proposal; and Denying GTE's Counterclaim," Washington Utilities and Transportation Commission, Docket No. UT-980338 (May 12, 1999) (Commission found no reason to alter prior decision in MFS/US West Arbitration, and that prior finding that calls to ISPs are local calls subject to reciprocal compensation should apply to MFS/GTE agreement as well); In the Matter of the Application of Global NAPs South, Inc. for the Arbitration of Unresolved Issues from the Interconnection Negotiations with Bell Atlantic-Delaware, Inc., Delaware Public Service Commission, Docket No. 98-540, Order No. 5092 (May 11, 1999) (Commission affirmed arbitrator's award that found interconnection agreement adopted by Global NAPS *did* anticipate treating ISP-bound traffic as local for purposes of reciprocal compensation, because agreement did not contain provisions for segregation of ISP-bound traffic or other special procedures for such traffic; arbitrator also found that FCC Order not dispositive of issue and that GNAPS entitled to receive reciprocal compensation for ISP-bound calls unless and until FCC issues ruling to contrary); In the Matter of the Petition of GTE Hawaiian Telephone Company, Inc. for a Declaratory Order that Traffic to Internet Service Providers is Interstate and Not Subject to Transport and Termination Compensation, Hawaii Public Utilities Commission, Docket No. 99-0067, Decision and Order No. 16975 (May 6, 1999) (Commission found that previous finding that reciprocal compensation should be paid for Internet traffic not in conflict with FCC Order); In the Matter of the Complaints of ICG Telecom Group, Inc., MCImetro Access Transmission Services, Inc., and Time Warner Telecom v. Ameritech Ohio, Ohio Public Utilities Commission, Case No. 97-1557-TP-CSS et al (May 5, 1999) (Commission found that FCC Order does not affect earlier decision and that pending new FCC rule, state commissions have authority to establish inter-carrier mechanism and to decide whether and under what circumstances reciprocal compensation is due); Electric Lightwave, Inc. v. U S WEST Communications, Inc., Oregon Public Utility Commission, Order No. 99-285 (April 26, 1999) (Commission ruled that ISP traffic is local under terms of existing interconnection agreements, agreeing with the Alabama PSC that parties were required to specifically exclude ISP traffic from the definition of local traffic or applicability of reciprocal compensation, if that was parties' intent); Proceeding on Motion of the Commission to Reexamine Reciprocal Compensation, "Order Instituting Proceeding to Reexamine Reciprocal Compensation," New York Public Service Commission, Case No. 99-C-0529 (April 15, 1999) (Commission opened new docket to reexamine reciprocal compensation policy, particularly costs and rate structures applicable to large-volume call termination to single customers, and to set permanent rates for such by August, 1999; Commission noted that FCC order allows states to continue requiring payment of reciprocal compensation for Internet-bound traffic); In Re Petition of Pac-West Telecomm, Inc. for Arbitration Pursuant to Section 252 of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Nevada Bell, "Order Adopting Revised Arbitration Decision," Nevada Public Utilities Commission, Docket Nos. 98-10015 and 99-1007 (April 12, 1999) (Commission found FCC Order does not alter fact that ISP-bound traffic is treated as local for rate-making purposes and that ISPs are no different than other local business customers; Commission noted there is no practical way of distinguishing ISP-bound traffic and fact that there is substantial imbalance between calls terminating to CLEC does not support conclusion that subsidy flow exists); In Re: Request for Arbitration concerning complaint of American Communication Services of Jacksonville, Inc. d/b/a e.spire Communications, Inc. and ACSI Local Switched Services, Inc. d/b/a e.spire Communications, Inc. v. BellSouth Telecommunications, Inc. regarding Traffic Terminated to Internet Service Providers, Florida Public Service Commission, Docket No. 981008-TP, Order No. PSC-99-0658-FOF-TP (April 6, 1999) (Commission required continued payment of reciprocal compensation for Internet-bound traffic; Commission found it did not need to address jurisdictional nature of calls but only needed to examine parties' intent, which clearly showed intention that Internet-bound traffic be rated and billed as local calls); In the Matter of the Petition of Pacific Bell for Arbitration of an Interconnection Agreement with Pac-West Telecomm, Inc. pursuant to

Section 256(b) of the Telecommunications Act of 1996, "Order on Draft Arbitrator's Report," California Public Utilities Commission, Application 98-11-024 (March 30, 1999) (in context of arbitration of new interconnection agreement, Arbitrator found that Pacific Bell is required to pay reciprocal compensation for ISP-bound traffic, concluding that such compensation was not eliminated by FCC Order); In Re: Emergency Petitions of ICG Telecom Group, Inc. and ITC Deltacom Communications, Inc. for a Declaratory Ruling, Alabama Public Service Commission, Docket No. 26619 (March 4, 1999) ("Commission found ILECs should pay reciprocal compensation for ISP traffic under terms of interconnection agreements; Commission also found that parties intended those calls to be local because they did not exclude ISP traffic from local traffic at time agreements entered into); In the Matter of Enforcement of Interconnection Agreement between Intermedia Communications, Inc. and BellSouth Telecommunications, Inc., "Order Denying Motion for Stay," North Carolina Utilities Commission, Docket No. P-55, SUB 1096 (March 1, 1999) (Commission denies further stay for BellSouth of its November 4, 1999 order requiring payment of reciprocal compensation for ISP traffic; Commission found that any further stay must be obtained from court on appeal; in comments to district court, Commission argues that FCC Order does not disturb Commission's earlier order).

49. We note that Bell Atlantic has voluntarily offered, and the majority has accepted, to continue paying reciprocal compensation for traffic up to an imbalance of 2:1. The majority notes that because there is no technological means to segregate legitimate local traffic from illegitimate ISP-bound traffic, this ratio "is generous to the point of likely including some ISP-bound traffic." D.T.E. 97-116-C at 28 n.31. However, according to the majority, there is no legal requirement that Bell Atlantic pay any reciprocal compensation to one another for this traffic; accordingly, the effective legal "rate" is zero. Id. at 25.

50. The majority's reference to a possible impact on Bell Atlantic's ratepayers (via a price cap exogenous cost) if Bell Atlantic was ordered to continue paying reciprocal compensation is premature and speculative at best. Whether Bell Atlantic would be eligible for such exogenous cost recovery is dependent on a number of complex factors which we would not presume to prejudge.

51. Given its conclusion that Bell Atlantic has no obligation to pay reciprocal compensation for ISP-bound traffic, it is not clear to us why the majority thinks Bell Atlantic would engage in negotiation, as it encourages Bell Atlantic to do, because if such discussions were to lead to an agreement for compensation, then Bell Atlantic would begin to pay its local competitors for traffic that, according to the majority, it has no obligation to pay.

52. We note that the Department occasionally provides general guidance at the close of an order on a specific adjudication, but the guidance is directly related to the substance of the order. For example, in Essex County Gas Company, D.T.E. 98-27 (1998), the Department included direction on the showing proponents of a merger should make to ensure expeditious consideration of their petitions. This type of guidance, directly related to the specific case at hand and flowing from the evidence presented, is, of course, appropriate.

53. The majority concludes, "Clearly, continuing to require payment of reciprocal compensation along the lines of our October Order is not an opportunity to promote the general welfare" without the Department having examined this question. D.T.E. 97-116-C at 34.

54. See, e.g., D.T.E. 97-116-C at 32-33 ("There is, however - and we emphasize this point - nothing illegal or improper in taking advantage of an opportunity such as the one presented by our October Order. One would not expect profit-maximizing enterprise[s] like CLECs and ISPs, rationally pursuing their own ends, to leave it unexploited.").

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

NEWARK, NEW JERSEY WEDNESDAY, JULY 7, 1999

BOARD MEETING

ITEM 8D - TELECOMMUNICATIONS

Docket No. TO98070426 - Order - In the Matter of the Petition of Global Naps, Inc. for Arbitration of Interconnection Rates, Terms, Conditions and Related Arrangements with Bell Atlantic-New Jersey Pursuant to Section 252(b) of the Telecommunications Act of 1996.

BEFORE: PRESIDENT HERBERT H. TATE, JR.
COMMISSIONER CARMEN J. ARMENTI
COMMISSIONER FREDERICK F. BUTLER

C. M. Clarke
C. B. Lewis
C. Jackson

J. H. BUEHRER & ASSOCIATES
17 Academy Street - Suite 201
Newark, New Jersey 07102
(973) 623-1974

PRESIDENT TATE: Item 8D.

MR. CENTRELLA: Commissioners, Item 8D is an arbitration between Global Naps, Inc. and Bell Atlantic-New Jersey.

By letter dated June 30th, Global Naps filed for arbitration. On October 21st, 1998, there was a hearing and a recommended interim final decision was issued by the arbitrator on October 26, 1998. The issues that were addressed and the decisions I'll break down in to six categories and I will just go through the six decisions.

The arbitrator decided that Global Naps is eligible for a interconnection agreement with Bell Atlantic, that Global Naps is entitled to MFN which is Most Favorite Nations status or to be able to opt into other interconnection agreements, that Global Naps if it opts into another agreement specifically the MFS agreement, that it has to do so on an all or nothing basis.

The fourth decision was that the

contract be roughly 19 months which is 12 months plus the 219 days between December 1st, 1998 and today, July 7th, 1999.

So, we would modify the Judge's decision with that time frame.

The fifth decision deals with internet service provider traffic being eligible for reciprocal compensation. As I said, in February, the FCC made a decision that ISP bound traffic was interstate and it also went on to say that pending an adoption of a rule establishing an appropriate interstate compensation mechanism it found no reason to interfere with state commission findings as to whether reciprocal compensation provisions of interconnection agreements apply to ISP bound traffic.

Staff is convinced that the Board has the ability to determine whether or not in fact ISP traffic is local or not. Reciprocal compensation is contained in the agreement specifically for local traffic. And since the FCC has determined

that it is interstate traffic, then it's staff position that this type of traffic should be excluded from reciprocal compensation. And we would request to modify the decision to reflect that fact.

The last issue that the arbitrator made a decision on is with respect to the actual rate for reciprocal compensation. And the arbitrator stated that the rate that was contained in the original contract, the MFS contract, was a negotiated rate and therefore that's the appropriate rate for Global Naps to opt in and we agree with that, and we would make just one minor modification and that is to clarify that the ISP traffic is not local and not subject to those rates. Those rates are different than the Board's generic rates. That was the last issue that they decided.

So with those modifications, Staff recommends that the parties be directed to file within five days of the order that's issued in this matter an interconnection

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. P-561, SUB 10

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of BellSouth Telecommunications, Inc., Complainant, v. US LEC of North Carolina Inc., Respondent	))))))	ORDER DENYING RECIPROCAL COMPENSATION

HEARD: Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina, August 16, 1999 - August 24, 1999

BEFORE: Chairman Jo Anne Sanford, Presiding; and Commissioners Ralph A. Hunt, Judy Hunt, William R. Pittman, J. Richard Conder, Robert V. Owens, Jr., and Sam J. Ervin, IV

APPEARANCES:

For BellSouth Telecommunications, Inc.:

Edward L. Rankin, III, General Counsel – North Carolina, and Andrew D. Shore, BellSouth Telecommunications, Inc., 1521 BellSouth Plaza, Post Office Box 30188, Charlotte, North Carolina 28230

R. Douglas Lackey, Bennett L. Ross, and J. Phillip Carver, BellSouth Telecommunications, Inc., 675 West Peachtree Street, Suite 4300, Atlanta, Georgia 30375

Edward S. Finley, Jr., Hunton & Williams, Suite 1600, One Hannover Square, Fayetteville Street Mall, Post Office Box 109, Raleigh, North Carolina 27602

For US LEC of North Carolina, Inc.:

Joseph W. Eason and Christopher J. Blake, Moore & Van Allen, PLLC, Post Office Box 26507, Raleigh, North Carolina 27611

James P. McLoughlin, Jr., Moore & Van Allen, PLLC, 100 North Tryon Street, Charlotte, North Carolina 28202-4003

Ky E. Kirby, Swidler, Berlin, Shereff and Friedman, 3000 K. Street, N.W., Washington, D.C. 20007

For Metacomm, LLC:

Jim W. Phillips, Jr. and Marcus W. Trathen, Brooks, Pierce, McLendon, Humphrey & Leonard, L.L.P., Post Office Box 1800, Raleigh, North Carolina 27602

BY THE COMMISSION: BellSouth Telecommunications, Inc. (BellSouth) initiated this proceeding on September 14, 1998, by filing a Complaint and Request for Declaratory Ruling. BellSouth alleged that US LEC of North Carolina Inc. (formerly US LEC of North Carolina, LLC) (US LEC) was improperly invoicing BellSouth for millions of dollars of reciprocal compensation for minutes of use resulting from telephone connections established between the BellSouth and US LEC networks for the purpose of generating reciprocal compensation. BellSouth stated that no reciprocal compensation was due under the parties' Commission-approved Interconnection Agreements, the Telecommunications Act of 1996 (Act, 1996 Act, or TA96), or the public policy of this State for minutes of use attributable to such connections. Also, on September 14, 1998, US LEC filed a Complaint against BellSouth in Docket No. P-55, Sub 1107 (the US LEC Complaint case). The thrust of US LEC's Complaint was that BellSouth had breached the parties' then current Interconnection Agreement by failing to pay amounts due US LEC. The money sought by US LEC consists mostly of the reciprocal compensation at issue in this proceeding.

BellSouth and US LEC each filed an Answer to the other's Complaint on October 26, 1998. On November 20, 1998, the Commission issued an Order Concerning Procedure and Scheduling Hearings. In its Order, the Commission consolidated the two cases for discovery, but not for hearing, set forth procedures and a timetable for serving, responding to, and objecting to data requests, and established deadlines for discovery and prefiling testimony. On November 25, 1998, Metacomm, LLC (Metacomm) filed a Petition to Intervene in this docket. By Order dated December 17, 1998, the Commission allowed Metacomm to intervene. It also ordered that any prefiled testimony of Metacomm be filed on the same day as that of US LEC.

On January 13, 1999, the Commission issued an Order Concerning Protective Order which directed the parties to adopt the Protective Order proposed by BellSouth, with one noted exception. By Order dated March 23, 1999, the Commission issued a revised schedule in this matter. It established a discovery deadline of June 16, 1999, and set the hearing in this docket to begin on August 16, 1999, and the hearing in the US LEC Complaint case to begin on August 23, 1999.

On July 7, 1999, the Commission issued an Order directing the Public Staff to provide direct technical and other assistance to the Commission in these proceedings, rather than participating as a party. On July 16, 1999, the Public Staff filed a letter indicating its willingness to provide direct assistance to the Commission.

On August 3, 1999, the Commission issued an Order, *sua sponte*, directing that the hearing in the US LEC Complaint case would begin on October 25, 1999, and stating that the Commission would allow up to two weeks for the evidentiary hearing in this matter. By Order dated October 12, 1999, the Commission continued the hearing in the US LEC Complaint case until at least 30 days following its decision in this proceeding.

The Commission issued a Prehearing Order on August 11, 1999. On that same date, US LEC and Metacomm filed a Joint Motion asking the Commission to order BellSouth to identify its "causes of action." By Order dated August 13, 1999, the Commission denied the Motion.

Discovery in this proceeding was prodigious. The parties deposed more than 90 witnesses, and they each propounded and answered several sets of data requests and produced a voluminous amount of documents. The Commission ruled on numerous objections to data requests, as well as several motions concerning discovery matters.

The parties prefiled the testimony of several witnesses. During the evidentiary hearing, on August 20, 1999, US LEC and Metacomm filed a Revised Joint List of Witnesses. By that filing, US LEC and Metacomm notified BellSouth and the Commission that they were withdrawing the prefiled testimony of nine of their seventeen witnesses.

In order to streamline the presentation of proof at the evidentiary hearing, the Commission allowed the parties to designate as part of the record deposition testimony and exhibits. On September 3, 1999, the parties filed a Statement Regarding Depositions in the Record. The Statement included the lists of the full depositions, and the deposition excerpts, which the parties had designated as part of the record. By Order dated September 17, 1999, the Commission admitted into evidence and made part of the official record in this proceeding all depositions and deposition excerpts designated by the parties.

Numerous other motions and pleadings have been filed in this docket, and various Orders have been issued by the Commission addressing those motions and pleadings. All of those motions, pleadings, and Commission Orders, with the exception of some pleadings and data request responses US LEC and Metacomm filed under seal, are matters of public record and are contained in the official files maintained by the Chief Clerk of the Commission.

At the evidentiary hearing, which began as scheduled on August 16, 1999, BellSouth offered the testimony of the following fact witnesses: W. Keith Milner (Senior Director – Interconnection Services); JoAnn Ward (Systems Designer – BellSouth Business Systems, Inc.); Max Boykin (MIS Director – Meineke Discount Mufflers, Inc.); John McMahon (General Manager and VP Sales – BellSouth Business Systems, Inc.); and Jerry Hendrix (Senior Director – Interconnection Services Revenue Management, Network and Carrier Services). BellSouth also offered the expert testimony of Albert Halprin and William E. Taylor, Ph.D. In addition, Mr. Milner offered a portion of his testimony as an expert on network issues. Metacomm offered the fact testimony of the following witnesses: Mitchell Self (Shelby City Schools); Michael Crovi (Mecklenburg Area Catholic Schools); and Andrew McIntosh (Metacomm). Metacomm also offered the expert testimony of Don Wood. US LEC offered the fact testimony of employees Gary Grefrath and Michael Robinson. It also offered the expert testimony of Kathleen Wallman and William H. Lehr, Ph.D.

THE REGULATORY FRAMEWORK AND RECIPROCAL COMPENSATION

Until this decade, a single regulated company such as BellSouth was ordinarily the sole provider in any given area of local telephone exchange service (completing calls within a local calling area) and exchange access service (connecting customers to long distance companies such as AT&T). Congress adopted the 1996 Act in part to replace that plan with a competitive market for local telecommunications services.

To spur competition, the 1996 Act imposes a series of new federal obligations on incumbent carriers. See 47 U.S.C. § 251(b), (c). Of particular relevance here, the statute establishes rules to ensure that competing telephone companies may "interconnect" their networks so that callers who subscribe, for example, to US LEC's local telephone service can receive calls from, and place calls to, individuals who subscribe to BellSouth's service. See id. § 251(c)(2).

Under the 1996 Act's interconnection rules, all local exchange carriers must "establish reciprocal compensation arrangements for the transport and termination of telecommunications." Id. § 251(b)(5). In basic terms, "reciprocal compensation" works as follows. When a customer of Carrier A places a call to a customer of Carrier B in the same local area, Carrier A pays Carrier B for "terminating," or completing, that local call. Similarly, when a customer of Carrier B calls a customer of Carrier A, Carrier B pays Carrier A. Reciprocal compensation is generally computed on a minutes-of-use basis.

The 1996 Act requires a local carrier to pay reciprocal compensation only for local calls. The FCC accordingly ruled in its 1996 Local Competition Order[1] that

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[1] First Report and Order, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, 11 FCC Rcd 15499 (1996), modified on recon., 11 FCC Rcd 13042 (1996) ("Local Competition Order"), vacated in part, Iowa Utils. Bd. v. FCC, 120 F.3d 753 (8th Cir. 1997), rev'd in part, aff'd in part sub nom. AT&T Corp. v. Iowa Utils. Bd., 119 S. Ct. 721 (1999).

"section 251(b)(5) reciprocal compensation obligations should apply only to traffic that originates and terminates within a local area." 11 FCC Rcd at 16013, ¶ 1034. A completely different set of rules governs non-local, long-distance traffic.

Acting pursuant to Section 252(a), BellSouth and US LEC entered into negotiations in 1996 in an effort to reach a "binding agreement" that would implement the duties imposed by the new 1996 Act. Those negotiations were successful, and the parties executed an Interconnection Agreement. The Commission approved that Agreement in January 1997. The Commission approved two subsequent Agreements which contained language identical to the first Agreement regarding the parties' reciprocal compensation obligations. The third and current Agreement between the parties expired on December 31, 1999.

The initial BellSouth-US LEC Agreement contained several provisions dealing with reciprocal compensation. Consistent with Section 251(b)(5) — which, as noted above, requires carriers to pay reciprocal compensation only for local traffic — the Agreement (Section IV.B.) states that "[e]ach party will pay the other for terminating its local traffic on the other's network the local interconnection rates" set forth in the Agreement. The Agreement (Section I.C.), in turn, defines "local traffic as "any telephone call that originates in one exchange and terminates in...the same exchange."

Dispute resolution provisions in each of the Agreements give either party the right to petition the Commission when a dispute arises as to the interpretation of "[a]ny provision of this Agreement or as to the proper implementation of this Agreement." Moreover, federal law gives the Commission the authority to "enforce the substantive terms of the agreements made pursuant to Sections 251 and 252." Iowa Utils. Bd. v. FCC, 120 F.3d 753 (8th Cir. 1997), aff'd in part and rev'd in part sub nom. AT&T Corp. v. Iowa Utils. Bd., 119 S.Ct. 721 (1999).

BellSouth's Complaint asked the Commission to enforce the substantive terms of the Agreements by finding that the minutes of use at issue in this proceeding do not qualify for payment of reciprocal compensation under the terms of the Agreements. Moreover, BellSouth's Complaint asked the Commission to find that the minutes of use do not qualify for reciprocal compensation as a matter of public policy. We review this Complaint under the authority given the Commission pursuant to the Agreements and the 1996 Act and also pursuant to our general supervisory powers granted by the North Carolina General Assembly in Chapter 62 of the General Statutes, the Public Utilities Act.

FINDINGS OF FACT

Parties and Jurisdiction

1. BellSouth is an incumbent local exchange carrier (ILEC) operating in portions of nine southeast states. Its service territory in North Carolina includes Raleigh, Greensboro, and Charlotte. US LEC is a competitive local exchange carrier (CLEC) that operates in selected southeast and mid-Atlantic markets. US LEC is certified by the Commission as a competing local provider (CLP). US LEC owns and operates switches in only three North Carolina cities — Raleigh, Greensboro, and Charlotte. Richard Aab is the controlling shareholder and Chairman of the Board of US LEC. Metacomm was formed in September 1997, to attempt to generate reciprocal compensation for US LEC, which US LEC agreed to share with Metacomm. Richard Aab also owns a controlling interest in Metacomm through RTA Associates, LLC, of which he is the sole owner. MCNC is a quasi-governmental agency created by the North Carolina General Assembly in 1981. This Commission has jurisdiction to hear and rule upon the complaint in this docket.

Interconnection Agreements

2. In accordance with their obligations under the 1996 Act, BellSouth and US LEC have been parties to three Interconnection Agreements since 1996. Their current agreement expired on December 31, 1999. US LEC and BellSouth negotiated their first Interconnection Agreement filed with the Commission pursuant to Sections 251 and 252 of the 1996 Act, and the Commission approved the Interconnection Agreement by Order dated January 29, 1997 (1997 Agreement), under authority granted by Section 252(e) of TA96. Following the expiration of the first US LEC/BellSouth Interconnection Agreement on October 31, 1998, US LEC opted into the terms of a voluntarily-negotiated and Commission-approved Interconnection Agreement between BellSouth and ALEC, Inc. (1998 Agreement). Following the expiration of that Interconnection Agreement in June 1999, US LEC opted into the terms of a voluntarily-negotiated and Commission-approved Interconnection Agreement between BellSouth and Intermedia Communications, Inc. (1999 Agreement). However, it is the Commission's understanding that the parties are continuing to operate under this agreement. The opted-into Interconnection Agreements are substantially similar in all material respects to the first US LEC/BellSouth Interconnection Agreement. The Commission approved all three Agreements pursuant to its duties under the 1996 Act. All three Agreements require the parties, among other things, to pay each other reciprocal compensation for terminating local traffic originated by an end user on its network and terminated by an end user on the other party's network. The first Interconnection Agreement between the parties, under which they were operating at the time US LEC entered into relationships with Metacomm and MCNC to induce them to originate minutes of use for which US LEC would bill BellSouth reciprocal compensation, stated: "US LEC and BellSouth enter into this Agreement with the understanding that the carriers would be interconnecting with each

other for comparable types of calls and that the usage would likely be reasonably balanced, i.e., US LEC would be terminating to BellSouth approximately the same level of usage that BellSouth would be terminating to US LEC." Pertinent parts of the three Interconnection Agreements are set out or cited in Appendix A.

Establishment of Networks

3. US LEC deliberately created a usage imbalance between itself and BellSouth by terminating a greater amount of traffic originating on BellSouth's network than it would be terminating to BellSouth. In furtherance of its plan to create a traffic imbalance and thus large reciprocal compensation revenues for itself, US LEC, among other things, induced MCNC and Metacomm to originate connections on BellSouth's network and terminate them to US LEC telephone numbers by agreeing to pay them 40% of all reciprocal compensation BellSouth paid US LEC for minutes of use for which they were responsible.

4. In the fall of 1997, Metacomm and MCNC established networks to generate reciprocal compensation for US LEC and commissions for themselves. They established connections by having routers connected to circuits purchased from BellSouth call routers connected to circuits provided by US LEC. They leased transmission facilities from BellSouth capable of originating up to 672 connections simultaneously. Pursuant to US LEC's instructions, Metacomm and MCNC programmed their routers to disconnect and immediately reconnect each connection every 23 hours and 59 minutes, so that US LEC's switches could create the records US LEC which needed to bill BellSouth for reciprocal compensation.

Withdrawal of MCNC

5. MCNC withdrew its participation in the reciprocal compensation arrangement after its management learned that the "unusual configuration and mix of equipment" making up the network was intended to generate revenue from connections without regard to actual traffic or content traversing the connections. MCNC withdrew its participation even though it stood to gain millions of dollars in commissions from the minutes of use generated on its reciprocal compensation network before the time it terminated its relationship with US LEC. The MCNC executive who investigated the network configured by MCNC's former consultants testified in this proceeding that he did not think it was appropriate for BellSouth to have to pay reciprocal compensation for connections established for the purpose of generating reciprocal compensation.

Further Evolution of Metacomm Network

6. To ensure that its reciprocal compensation plan succeeded, US LEC provided the financial, technical, and other support Metacomm needed to maximize the

number and duration of connections it established originating out of BellSouth's network and terminating to US LEC's network. Other than US LEC, Richard Aab has been the sole source of the funds needed by Metacomm to establish the connections to generate the minutes of use for which US LEC has billed BellSouth over $100 million in reciprocal compensation.

7. It is unclear whether Metacomm's initial plan included serving end-user customers. At some point after US LEC and Metacomm implemented their reciprocal compensation plan, US LEC demanded that Metacomm "develop real originating traffic for its network." In response to US LEC's "demand," and to "provide Metacomm a hedge against any unforeseen actions yet-to-be taken by BellSouth, the PUC, MCNC, et al.," Metacomm provided customers with what it described as "dedicated access." Metacomm offered potential customers free access to the Internet via its network through at least the date the then-current Interconnection Agreement between BellSouth and US LEC expired. Metacomm's offers for free service were dependent upon the customer accepting an amount of capacity predetermined by Metacomm which in no way depended upon the customer's needs. Metacomm paid sales agents more than $400,000 ($25,000 per customer) to persuade customers to sign up for free access to Metacomm's network. It cost Metacomm $685,000 a year to serve each customer. At the time of the evidentiary hearing, Metacomm had approximately 25 customers. This number had remained stable since September of 1998. At the time of the evidentiary hearing, virtually no customers had paid Metacomm to access Metacomm's network. There is evidence in the record regarding only seven of Metacomm's customers. One customer, Charlie Horse Farm, never accessed or attempted to access Metacomm's network. Metacomm nevertheless originated connections from a router located at the horse barn to a terminating router for approximately one year, and US LEC has billed BellSouth reciprocal compensation for all of the minutes of use attributable to the connections established by the router at the horse barn. Another customer, Meineke Discount Mufflers, Inc. (Meineke), did not access Metacomm's network for an overwhelming majority of the time Metacomm's router at Meineke's premises was opening connections to US LEC's network. Like the connections originated by Metacomm at Charlie Horse Farm, US LEC has billed BellSouth for every minute connections were established by the router at Meineke's premises.

Plan Not Revealed

8. US LEC and Metacomm took active steps to not reveal their reciprocal compensation plan to BellSouth.

BellSouth's Knowledge of the Network and the Flow of Reciprocal Compensation

9. BellSouth's knowledge of the US LEC/Metacomm network configuration, and its understanding of the resulting flow of reciprocal compensation, evolved over time. Employees of some subsidiaries of BellSouth, such as BellSouth Business Systems (BBS),

appear to have had some suspicion of the situation earlier than other employees of other subsidiaries. It took a certain amount of time before the entire picture became clear to the parties who would be responsible for the payment or non-payment of reciprocal compensation, or for raising objections with US LEC regarding whether payment of reciprocal compensation for the traffic was appropriate. BellSouth brought its complaint to the Commission within a reasonable time after those persons became aware of the nature of the traffic traversing the US LEC/Metacomm network.

Amounts of Minutes Generated

10. Metacomm generates more than 650 million minutes of connections between its routers per month, resulting in monthly reciprocal compensation billing by US LEC to BellSouth of more than $8.5 million. By the end of 1999, if historical billings continued, US LEC's reciprocal compensation billings to BellSouth attributable to minutes of use generated by Metacomm would be approximately $150 million. As of May 1999, US LEC had billed BellSouth 78 times the amount of reciprocal compensation that BellSouth had billed US LEC.

11. There is no basis upon which to rule that reciprocal compensation is due for some minutes of use by Metacomm's customers. The configuration deployed by Metacomm to generate reciprocal compensation is the same when a customer accesses the network as when Metacomm is simply using routers located adjacent to one another to establish connections for the purpose of generating reciprocal compensation. Metacomm did not measure actual customer minutes of use. There is no way to estimate actual customer minutes of use in a reasonably accurate way which would not be arbitrary.

EVIDENCE TO SUPPORT FINDINGS OF FACT

This section of this Order is not intended to list all of the record evidence which supports each finding of fact. As noted above, the record includes numerous volumes of deposition testimony and exhibits in addition to the transcript from the hearing and is, therefore, quite voluminous. This section is, rather, intended to reference the most salient evidence which supports our findings of fact.

EVIDENCE IN SUPPORT OF FINDING OF FACT NO. 1

BellSouth is a "local exchange company" within the meaning of G.S. 62-3(16a) and an "incumbent local exchange carrier" within the meaning of Section 251 of the 1996 Act. Its service territory in North Carolina includes Raleigh, Greensboro, and Charlotte.

US LEC is a competitive local exchange carrier that operates in selected southeast and mid-Atlantic markets. US LEC is certified by the North Carolina Utilities Commission

(Commission or NCUC) as a CLP. It owns and operates switches in three North Carolina cities — Raleigh, Greensboro, and Charlotte.

Richard T. Aab owns stock representing 94% of US LEC's total voting power. (Tr. Vol. 1, p. 97.) Consequently, he is "able to control the board and all stockholder decisions and, in general, to determine (without the consent of the Company's other stockholders) the outcome of any corporate transaction or other matter submitted to the stockholders for approval." (US LEC Form 10-K, filed March 23, 1999, at 15.) US LEC's President is Tansukh Ganatra. US LEC executive Mike Simmons had responsibility initially for the "projects" which underlie this dispute. Wilbur Williams assumed that duty from Mr. Simmons at the end of 1997. Both men reported to Mr. Ganatra, who oversaw and directed their efforts.

Tom Finn and Steve McNeill formed Metacomm in September 1997 to take advantage of US LEC's offer to share reciprocal compensation it received from BellSouth. In June 1998, Richard Aab acquired a controlling interest in Metacomm. (Tr. Vol. 1, p. 97; Ex. WKM-23.) Mr. Aab's "long time business partner and personal friend," Andy McIntosh, replaced Mr. Finn as the CEO of Metacomm in January 1999. (Tr. Vol. 7, pp. 100, 120.) Metacomm intervened in this proceeding to protect its interests in receiving a commission from the reciprocal compensation payments billed by US LEC to BellSouth and to assist US LEC in defending the network they both designed and developed for the express purpose of generating reciprocal compensation.

MCNC was created by the North Carolina General Assembly in 1981. (Tr. Vol. 1, p. 81.) Among other things, MCNC operates the NC-REN network, which provides Internet connectivity via dedicated facilities to colleges and universities located in North Carolina. (Blatecky Dep. 413.) Alan Blatecky is MCNC's Vice President of Information Technologies and a member of MCNC's Executive Management Committee (EMC). He has worked at MCNC since 1982. (Tr. Vol. 1, p. 82; Blatecky Dep. 8-9.) Frank Hart was the President of MCNC until early 1998. It was BellSouth witness Milner's understanding that he was forced to resign as a result of entangling MCNC in the "US LEC project." (Tr. Vol. 1, p. 128.)

EVIDENCE IN SUPPORT OF FINDING OF FACT NO. 2

In accordance with their obligations under the 1996 Act, BellSouth and US LEC executed their first Interconnection Agreement on November 1, 1996 (1997 Agreement). (Tr. Vol. 6, p. 209; Ex. JDH-1.) Section I.D. of the 1997 Agreement defines "local interconnection," in relevant part, as "the delivery of local traffic to be terminated on each party's local network so that end users of either party have the ability to reach end users of the other party." Section IV is titled "Local Interconnection." Paragraph B of that section states that "[e]ach party will pay the other [reciprocal compensation] for terminating its local traffic on the other's network at the rate set forth in the agreement." "Local traffic" is

defined as "any telephone call that originates in one exchange and terminates in either the same exchange, or a corresponding Extended Area Service (EAS) exchange." (Section I.C.) These same provisions appear in most of the approximately 700 interconnection agreements BellSouth has entered into with various CLPs. (Tr. Vol. 6, pp. 209-216.)

The 1997 Agreement contains an additional provision which was added to address and allay US LEC's concern that traffic, and thus reciprocal compensation payments, might be imbalanced in favor of BellSouth. Section IV.C. states:

> US LEC and BellSouth enter into this Agreement with the understanding that the carriers would be interconnecting with each other for comparable types of calls and that the usage would likely be reasonably balanced, i.e., US LEC would be terminating to BellSouth approximately the same level of usage that BellSouth would be terminating to US LEC. If at any time during the term of this Agreement traffic is imbalanced to the degree that US LEC feels a cap on amounts owing under this Agreement is required, US LEC has the option to adopt the comparable billing provisions contained in any agreement BellSouth negotiates or has entered into with another ALEC which contains cap provisions, after August 8, 1996 provided that US LEC adopt the billing provisions of such other agreement that are comparable to those contained in this Section IV.

(emphasis added).

The 1997 Agreement expired by its terms on October 31, 1998. On June 26, 1998, US LEC exercised its right under Section 252(i) of the Act to adopt another CLP's interconnection agreement by adopting BellSouth's agreement with ALEC, Inc. (1998 Agreement). The 1998 Agreement expired on June 15, 1999. (Ex. JDH-2.) In August 1999, after US LEC's reciprocal compensation plan came to light, US LEC avoided arbitration with BellSouth over the definition of "local traffic" by again exercising its right to adopt the interconnection agreement between BellSouth and a different CLP, Intermedia Communications, Inc. (1999 Agreement). The 1999 Agreement expired on December 31, 1999.

The 1998 and 1999 Agreements also require the parties to pay one another reciprocal compensation for the termination of "local traffic." All three Agreements contain provisions for reciprocal compensation to be paid at a rate of approximately 1.33 cents per minute. (Tr. Vol. 8, pp. 156-57.)

EVIDENCE IN SUPPORT OF FINDING OF FACT NO. 3

After executing the 1997 Agreement, US LEC sought to imbalance traffic in its favor. First, US LEC's president, Mr. Ganatra, required his management employees to install and maintain BellSouth Basic Rate ISDN (BRI) service at their homes to connect to US LEC's network during nonbusiness hours, and he encouraged them to keep the lines connected or "nailed up" 24 hours a day for the express purpose of generating minutes of use for which US LEC would bill BellSouth reciprocal compensation. (Tr. Vol. 1, p. 82; Vail Dep. 246-49.) For every US LEC employee who participated in the "Employee BRI Program," US LEC could generate more than $1,000 per month. (Tr. Vol. 1, pp. 134-35.)

In addition, Mr. Ganatra negotiated an agreement executed on June 1, 1997, to pay sales agents 50-65% of the reciprocal compensation US LEC received from BellSouth for terminating calls to information providers and others whom the sales agent recruited as US LEC customers. (See US LEC's response to Interrogatory No. 37 of BellSouth's Fourth Set of Data Requests to US LEC.) In addition to the commissions paid under the agreement, US LEC rewarded the sales agent's principal in December 1997, with a warrant to purchase 99,000 shares of US LEC stock. (Vail Dep. 57-59.)

In 1997, in response to funding cuts by the General Assembly, MCNC began to investigate opportunities to commercialize MCNC assets and/or to create new, profit-generating businesses. In the summer of 1997, MCNC hired Tom Finn and Steve McNeill as consultants to assist MCNC in identifying and implementing business development opportunities. (Tr. Vol. 1, p. 81; see also Blatecky Dep. 17-80.)

In August 1997, US LEC Executive Mike Simmons approached his former co-workers Steve McNeill and Tom Finn, and "suggest[ed] an arrangement in which MCNC could share in revenues owed to US LEC by BellSouth...." (Ex. WKM-3, at 1.) The arrangement was intended to exploit the reciprocal compensation provision in US LEC's Interconnection Agreement with BellSouth. At a meeting arranged by Messrs. Finn and McNeill, Mr. Simmons and his colleagues at US LEC described to Mr. Blatecky and others at MCNC how the reciprocal compensation provision in the US LEC/BellSouth Interconnection Agreement could be a tremendous moneymaker for US LEC if traffic was imbalanced in favor of US LEC, and how MCNC could share in the wealth if it assisted in generating the traffic to create the imbalance. During this meeting, Mr. McNeill, in the presence of Mr. Simmons and others from US LEC, told MCNC's representatives that imbalancing traffic in order to bill BellSouth enormous amounts of reciprocal compensation would benefit BellSouth, because it would help BellSouth demonstrate that sufficient competition existed in BellSouth's local market and thereby allow BellSouth to offer long distance services. [2] The consultants then sold MCNC management on the idea of

[2] This same statement was later repeated to others, including one of the vendors who provided equipment for the MCNC reciprocal compensation network. (Tr. Vol. 1, p. 130)

establishing the network suggested by Mr. Simmons and using it to provide Internet connectivity to schools. (Tr. Vol. 1, pp. 81-82; Blatecky Dep. 81-88, 355-358; Ex. WKM-3, at 1.)

In order to take personal advantage of the reciprocal compensation sharing offered by US LEC, Messrs. Finn and McNeill formed a separate company, Metacomm, to set up a second reciprocal compensation network identical to, but independent from, the one it planned to establish for MCNC. They recruited two partners to provide financial backing based on promises of quick profits in the "10s of millions of dollars." (Ex. WKM-18.) Messrs. Finn and McNeill also solicited the assistance of the other MCNC consultants and employees who would work in setting up the MCNC network to simultaneously set up a network to generate reciprocal compensation for Metacomm's benefit. This group consisted of Andy Carwile, Dave Sinnott, Jason Brown, Larry Densmore, and Michael Fox. They all made great efforts to ensure that MCNC did not find out about their activities on behalf of Metacomm.[3] (Tr. Vol. 1, p. 96; Exs. WKM-17, 19, 20, 21, 22.)

On September 3, 1997, US LEC entered into identical agreements with MCNC and Metacomm to pay them 40% of all reciprocal compensation BellSouth paid US LEC for traffic created by the two companies. (Exs. WKM-4 and WKM-16.)

EVIDENCE IN SUPPORT OF FINDING OF FACT NO. 4

The record shows that immediately after signing the commission agreements on the sharing of reciprocal compensation, MCNC and Metacomm began setting up the networks suggested by US LEC. The networks they configured were identical in design and remarkably simple. MCNC and Metacomm each located routers (computers) in leased "POP sites." They leased from BellSouth ISDN lines and DS3 high-transmission facilities capable of originating up to 672 connections and connected them to their originating routers. They programmed the routers to dial telephone numbers supplied to them by US LEC. Connections originated by the routers were transported to BellSouth's switch, then to US LEC's switch in the same city in which the connection originated, and then transported by leased facilities to terminating routers.

Metacomm set up originating routers in POP sites located in Raleigh, Greensboro and Charlotte. MCNC planned to do the same, but withdrew its participation after setting up only the Raleigh and Charlotte POP sites. In each city, the two companies' POP sites were located in contiguous, leased spaces. All of MCNC's connections terminated in Raleigh or RTP, and most of Metacomm's terminated in Raleigh, regardless of their

[3] Mr. Blatecky stated at his deposition that had he been aware of his consultants' and employee's activities on behalf of Metacomm, "[i]t would have concerned [him] a great deal [b]ecause these folks are on our [MCNC's] payroll and should be working for us." (Blatecky Dep. 392.)

originating location. Metacomm's Raleigh originating routers called terminating routers located next to them in the same building. The stated objective of US LEC and its partners was for Metacomm and MCNC to keep as many of the available connections "nailed up" on a continuous basis so that US LEC could bill BellSouth the maximum amount of reciprocal compensation for the open connections. (Tr. Vol. 1, pp. 84-87; 97-99; Exs. WKM-8, 9, 24; see also US LEC's responses to Interrogatory Nos. 2-5 of BellSouth's Fifth Set of Data Requests.)

US LEC directed MCNC and Metacomm to disconnect and immediately reconnect each connection every 23 hours and 59 minutes, because US LEC's switches could not create billing records needed to bill BellSouth reciprocal compensation if the connections were left up continuously. Pursuant to US LEC's instructions, MCNC and Metacomm programmed their routers to recycle each circuit once per 24-hour period. (Tr. Vol. 1, pp. 88-89; 99; Finn Dep. Ex. 3.)

The plan US LEC proposed to MCNC is set forth in a memorandum produced by MCNC. It states:

> MCNC/US LEC ISDN Remuneration Application
>
> One provision of the Telecom Reform Act of 1996 requires that Incumbent Local Exchange Carriers (ILECs) provide a termination fee to new Competitive Local Exchange Carriers (CLECs) for any switched call that originates from an ILEC and terminates at the CLEC....
>
> This provision of the Telecom reform act provides a unique opportunity for CLECs (in this case, US LEC) to pass along a portion of those termination fees (paid per minute) to customers who are willing to purchase services from US LEC. MCNC has entered into an agreement with US LEC where they will provide ISDN connectivity from remote MCNC locations serviced by BellSouth to MCNC, which is served by US LEC. There are remote locations being serviced by BellSouth in Raleigh, Charlotte, and Greensboro and all of these sites dial back to MCNC via ISDN.
>
> Each remote site will have one or more DS3s (BellSouth) feeding an M13 channel bank which delivers 28 PRIs to the access equipment (currently Cisco 3640s). The [routers] then initiate 23 calls per PRI which terminate at MCNC (US LEC) on a similar set of access equipment. Given that each DS3 has 28 PRIs and each PRI can initiate 23 calls (644 calls per DS3), there is a major opportunity for revenue to grow significantly with each pair of DS3s (one remote and one central) that are activated.

> The technical requirements for this application are fairly simple. The equipment must primarily be able to originate and answer 644 calls per DS3 as well as take these calls down and bring them back up once per 24 hour period. Circuit availability is the primary factor in this application. There is no major requirement for accommodation of heavy traffic today as the current implementation requires simply enough traffic (i.e. Routing updates) to keep the circuits alive. The other major requirements entail monitoring and management capabilities as well as uptime reporting...with BellSouth and US LEC availability reports.

(Ex. WKM-5.) (emphasis added).

The Commission notes that the above-quoted memorandum makes no reference to the need for any actual use of the circuits for the reciprocal compensation to be generated. According to the memorandum, all that was needed to flow across the lines from BellSouth's network to US LEC's network were "routing updates."

EVIDENCE IN SUPPORT OF FINDING OF FACT NO. 5

In October 1997, MCNC terminated Tom Finn, Dave Sinnott and Jason Brown (who later became Metacomm employees) because it discovered that they had noncompete agreements with their former employer that prohibited them from working for MCNC. (Tr. Vol. 1, p. 90; Blatecky Dep. 382-83.) The following month, MCNC fired Mr. McNeill and Mr. Densmore because Messrs. McNeill and Densmore sent US LEC a letter misrepresenting that Mr. Densmore was the acting chief executive officer of MCNC to have US LEC write an $85,000 advance commission check to Mr. McNeill. Mr. McNeill shared the money with Mr. Densmore and MCNC employee/Metacomm consultant Michael Fox. (Tr. Vol. 1, p. 90.)

After terminating its consultants, MCNC President Frank Hart assigned Alan Blatecky to investigate the network configured by MCNC's former consultants in cooperation with US LEC. Mr. Blatecky discovered that the network was not currently designed to serve schools or any end users, but was designed and being operated at that time simply to keep open connections between routers for the sole purpose of generating reciprocal compensation. Mr. Blatecky documented his findings in two memoranda he prepared for MCNC's EMC in early January 1998. (Tr. Vol. 1, pp. 90-91; Exs. WKM-6 and WKM-7.) He concluded: "Essentially the project is based on having circuits operational with no data or content. That is, the circuits are being turned up and no traffic traverses the circuits." (Ex. WKM-6.) He further stated:

> The US LEC project was established haphazardly and was predicated solely on the potential revenue stream from BellSouth to US LEC for termination charges. The result is that the network that is being brought up is optimized

to generate revenue from these termination charges without regard to actual traffic or content.

(Ex. WKM-7.) Mr. Blatecky testified at his deposition in June 1999, that he stood behind these statements and saw no need to amend them in any way based on information he learned in the intervening year and a half. (Tr. Vol. 1, p. 129; Blatecky Dep. 417-24.)

Other evidence confirms Mr. Blatecky's conclusions. The Cisco equipment representative who installed the routers for MCNC stated that Michael Fox told him that the network was being configured solely to establish empty connections, and not to serve end-user customers:

A. What I said Michael Fox repeatedly told me was performance was not a requirement, because there was no data, period. He didn't say that there was a test phase. 'Cause if it was a test phase, then performance eventually would be a requirement. Do you see what I'm saying?

Q. Uh-huh (yes).

A. I didn't say anything about test requirements. I just said there was no requirements for data going across this network, period.

Q. So, in other words, what you were told by Mr. Fox is, "We want to set this network up, but it's never going to be used"?

A. Just a – I was told by Mr. Fox, back again to my record, that it was to help US LEC and BellSouth – US LEC as a CLEC, competitive local exchange carrier, and BellSouth in an FCC ruling for long distance. That was the purpose I was told.

Q. So was it your understanding this network was never going to be used?

A. It was my understanding that the network was not to be – was not going to be passing data. There was no requirement for data on that line. That was my understanding. I wouldn't say it wasn't being used. It's being – I mean, its running. It's used.

Q. So it's just a network that's going to get set up, and nobody was ever going to pass data or do anything with it?

A. That was my knowledge.

(Tr. Vol. 1, p. 130 (quoting Whelan Dep. 53-54).) Metacomm's Mr. Finn likewise conceded that, at least after his ouster, MCNC sought only to execute the "simple plan" to generate reciprocal compensation solely through open connections, and did not intend to make its reciprocal compensation network available to end users. (Ex. WKM-3, at 2.)

After discovering the true nature of the network configured by its former consultants and US LEC, MCNC withdrew its participation in the "US LEC project." MCNC did not think it appropriate to set up a network and maintain empty connections over it solely to generate reciprocal compensation. (Blatecky Dep. 421-22; Hart Dep. 245-47.) By terminating its agreements to purchase DS3s and other facilities from BellSouth, MCNC incurred substantial termination liabilities to BellSouth. (Tr. Vol. 1, p. 91.) These liabilities, together with the millions in commissions it stood to receive from US LEC for establishing empty connections, were not enough to persuade MCNC to participate in a business which it concluded "did not have integrity." (Blatecky Dep. 421, 429.)

EVIDENCE IN SUPPORT OF FINDING OF FACT NO. 6

Through the winter of 1997 and into the spring of 1998, Metacomm continued to expand its network by increasing the number of connections nailed up through BellSouth's and US LEC's switches. The goal of both US LEC and Metacomm was to create as much reciprocal compensation revenue as possible via this type of traffic. In December 1997, when US LEC's Executive Vice President reported to US LEC's President, Tansukh Ganatra, that Metacomm had activated new circuits at its Greensboro originating router location and planned to turn up additional circuits the next day as well, Ganatra responded: "Great!!! Show me the money!!!!!" (Ex. WKM-27.)

By mid-December 1997, Metacomm had five DS3s terminating in excess of 640 empty circuits each to US LEC numbers. Its plan was to employ the "full utilization of 18 DS3s (six in each of the three cities) by April 1998. (Finn Dep. Ex. 20.) After discussions with Mr. Ganatra at US LEC, Metacomm quickly expanded its plan to include 12 DS3s at each of its three originating router locations, for a total of 36 DS3s by July 1, 1998. In a letter to Mr. Ganatra confirming Metacomm's growth plans, Tom Finn stated that Metacomm's "goal is to expand its network at a rate that remains consistent with US LEC's expectations and is cognizant of BellSouth's constraints. The Company will rely on its close working relationship with US LEC to ensure that the incremental profitability afforded through its network expansion does not reach a point of diminished returns." (Finn Dep. Ex. 21.)

US LEC was extremely excited about the revenue Metacomm's empty connections were creating for it. In early-March 1998, Wilbur Williams reported to Mike Simmons on the "success" of the Metacomm project: "We will have nine Metacomm DS3s pumping $250,000 per month each, net installed by Friday. That is the total installed to date. With the BellSouth 25% PIU, that number could be as high as $400K per DS3. Pretty bad,

huh?" (Ex. WKM 57.) Mr. Williams calculated that nine DS3s "running full time" would result in monthly revenue of $3,173,148, with $1,903,887 (60%) going to US LEC and $1,269,261 (40%) to Metacomm." (Ex. WKM-40.) By March 1999, Metacomm was originating connections through more than twenty DS3s, and US LEC was billing BellSouth over $9 million per month for Metacomm's traffic. (See US LEC's response to Interrogatory No. 25 of BellSouth's Fourth Set of Data Requests.)

Mr. Ganatra exhorted his employees to ensure that the Metacomm "network" created as much revenue for US LEC as possible. For example, in May 1998, when Mr. Ganatra discovered that Metacomm traffic appeared to be decreasing, he sent an e-mail memorandum to his senior managers noting the decrease, and stated: "Folks something is not right and this is serious stuff!!!!! **Remember that our lifeline is in the billings to BellSouth**. . . .please assure me that whatever is wrong will be fixed on a retroactive basis! (WKM-25.) (emphasis in original). In June 1998, when Wilbur Williams reported to Ganatra that the Metacomm routers were performing "poorly" – that is, they were not "pumping minutes" to US LEC at full capacity – and that he had told Metacomm to get the routers turned up "immediately," Ganatra responded: "Keep the 'pressure' on! We need the minutes!"[4] (WKM-26.) (emphasis in original).

In January 1998, US LEC began providing the money needed by Metacomm to keep its network up and generating the empty minutes for which US LEC billed BellSouth. On January 19, 1998, US LEC provided Metacomm with a $500,000 unsecured "advance" on reciprocal compensation commissions payable to Metacomm. The following month, it provided an additional $700,000 unsecured advance. US LEC placed one condition on its cash advances – that "Metacomm grows rapidly to 36 DS3s." (WKM-42, at 2.) Indeed, US LEC made its initial advance contingent upon Metacomm converting its forecast for 36 DS3s into a firm sales order by the end of January 1998.[5] (Ex. WKM-79; Finn Dep. Ex. 24; Vail Dep. 148-51.) These were, of course, the 36 DS3s Metacomm planned to connect to routers at its POP sites.

US LEC has continued to make monthly advances to Metacomm. Each month, Metacomm sends US LEC a memorandum setting forth its network expenses, and US LEC responds with a check for about $1 million so that Metacomm can continue leaving

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[4] US LEC claims that Mr. Ganatra's numerous e-mails which state clearly his demands that the plan generate as much money for US LEC as possible merely reflect his "excitement" about helping Metacomm provide a valuable service to end-user customers. The Commission observes that none of Mr. Ganatra's e-mails expressing this "excitement" mention or even refer indirectly to Metacomm serving customers. (Tr. Vol. 1, pp. 136-137; Vol. 4, pp. 65-71.)

[5] On June 30, 1998, in connection with Richard Aab's purchase of a controlling interest in Metacomm, and after Mr. Aab paid more than $3 million to Metacomm's existing creditors, Metacomm and US LEC entered into a Security Agreement with respect to these advances. (US LEC Cross-Exam Ex. 2.) At that point, as a result of Mr. Aab's ownership and control of both companies, Metacomm and US LEC became "affiliated companies" for Securities and Exchange Commission reporting purposes, and US LEC had an obligation to enter into the security agreement with its sister company.

connections nailed up to US LEC telephone numbers. (Tr. Vol. 1, p. 110; US LEC's responses to Interrogatory No. 5 of BellSouth's Second Set of Data Requests and Interrogatory No. 26 of BellSouth's Fourth Set of Data Requests.)

US LEC's ongoing support of Metacomm has not been limited to money. US LEC provided Metacomm with human capital as well. For example, when Metacomm expressed concern about not having sufficient "bodies" to accomplish their mutual goal of installing 36 DS3s by the summer of 1998, US LEC responded by offering to provide technical and administrative personnel and to assign an employee to assist Metacomm full-time. (Tr. Vol. 1, p. 110; Exs. WKM-49, 50, 51, 52, 53.) Similarly, when Metacomm's Tom Finn wrote to Wilbur Williams of US LEC: "Please assure me that US LEC's current intentions (to "reward us handsomely, etc.") haven't changed and remain consistent with our numerous discussions..." (Finn Dep. Ex. 38), US LEC responded:

> I know of no reason why anyone there should feel the least bit different about US LEC's intentions and satisfaction with the way things are going. As I have stated numerous times, you guys are a critical block in our company and you must be successful, and we will make sure you are....Again, we must have you being successful, and nothing about that has changed.

(Finn Dep. Ex. 41.)

With its support, US LEC bought control over Metacomm. US LEC even made hiring decisions for Metacomm. In the spring of 1998, Mr. Finn asked Mr. Ganatra, "May I have your approval to hire/contract (@5K per month to get started) both Dave Sinnott and Jason Brown?" Ganatra directed: "The answer is NO at this time and it will have to wait until 6/18/98." (Tr. Vol. 1, p. 138; Ex. WKM-52; US LEC Ex. 18.)

US LEC did not purchase Metacomm directly. Instead, in June 1998, RTA Associates (RTA) bought 69% of Metacomm by buying out Mr. McNeill and the two silent partners for $1 million each. Mr. Aab also paid Larry Densmore, Michael Fox, and Andy Carwile over $90,000 for their interests in Metacomm, and paid over $3 million of Metacomm's outstanding debts. (Tr. Vol. 1, p. 97; WKM-23.) Mr. Aab insisted as a condition of his buyout that the former Metacomm partners enter into side agreements with Metacomm. The side agreements contained, among other things: a release by the individuals of Metacomm, RTA, and US LEC from all liabilities of any kind (¶ 1); a release of the individual by Metacomm only (¶ 2); a promise by the individuals not to participate in any way in a suit or other proceeding in a position adverse to Metacomm, RTA, or US LEC (¶ 1); a confidentiality clause which each individual acknowledged would be breached if he "discusses any contract to which Metacomm, RTA, or US LEC or any of their affiliates or subsidiaries is a party, or discusses the business of Metacomm, RTA or US LEC...with any persons," unless Metacomm provided written authorization (¶ 9); and

a recital that Metacomm, RTA, and US LEC were each intended beneficiaries of and could each enforce the agreement (¶ 13). (See, e.g., Finn Dep. Ex. 70.)

EVIDENCE IN SUPPORT OF FINDING OF FACT NO. 7

US LEC was concerned that BellSouth would object to paying reciprocal compensation for the empty connections nailed up by Metacomm and MCNC to generate reciprocal compensation. In a February 27, 1998 memorandum to Tansukh Ganatra, Wilbur Williams wrote: "The key question is whether or not [Metacomm's network] would stand up to scrutiny if BellSouth cried foul for any type of router-to-router configuration and would we be taking an unnecessary risk?" (WKM-41.) In an effort to shield Metacomm's network from unwanted scrutiny, US LEC demanded that Metacomm find a way to originate "real originating traffic" on its network. In response to US LEC's demand, Metacomm began for the first time to investigate allowing customers to access its network. In a March 13, 1998 memorandum to his Metacomm partners, Tom Finn wrote:

> In direct support of US LEC's demand (and to again differentiate Metacomm from MCNC), Capital Holdings introduced and negotiated with several other firms to establish 1) a bankable business plan which would survive scrutiny; 2) develop real originating traffic for the network. In addition of this effort meeting US LEC's demand, it also provides Metacomm a hedge against any unforeseen actions yet-to-be taken by BellSouth, the PUC, MCNC, et al.

(Ex. WKM-42, at 2.) (emphasis in original).

Thereafter, on March 20, 1998, Metacomm entered into a written agreement with Learningstation.com to allow Learningstation to host its educational applications on Metacomm's network. (Finn Dep. Ex. 33.) Metacomm agreed to pay Learningstation to bring customers onto Metacomm's network, by promising to pay Learningstation more than $50,000 for each DS3 connected to the network in order to allow access to Learningstation's applications. (Id. ¶ 1.) The record evidence is that only one customer ever used the Metacomm network to access Learningstation's applications.

US LEC allowed Metacomm to sign up only those customers located in BellSouth's service territory. US LEC apparently recognized that originating Metacomm traffic through the switch of a smaller ILEC could cause the ILEC serious financial harm. When Metacomm inquired about a potential customer served by Concord Telephone Company, with whom US LEC has an interconnection agreement, US LEC instructed: "Back away from Concord for the moment. A DS3 would break their bank." (Ex. WKM-80; see also Finn Dep. Ex. 54.)

All of the Metacomm partners did not agree with the need to add customers to Metacomm's network. Wilbur Williams reported to Mr. Ganatra: "Steve McNeill is only

interested in setting up router-to-router configurations (Metacomm) and the rest of those guys are trying to build a business that would be sustainable even if reciprocal compensation went away....Their internal struggles seem to continue, which is the business building idea versus the greedy pigs who only want to create dollars (Steve)." (Ex. WKM-56.) Moreover, in a late-1997 memorandum to Metacomm investors Terry Phillips and Phil Miller, Metacomm's Tom Finn addressed their "disappointment and frustration" regarding the MCNC and Metacomm business plan. (Finn Dep. Ex. 13.) He said he "share[d] many of the same 'strange feelings' concerning the ethics of this business" as they did, but continued to justify the plan as an acceptable "arbitrage" of BellSouth. He stated that "US LEC writes huge checks to BellSouth on the first of each month for traffic generated by US LEC that terminates on BellSouth switches." Thus, he told his investors that BellSouth should reciprocate by paying US LEC for Metacomm traffic. He said if BellSouth was required to pay, "everyone" would win: "BellSouth gets long distance approval and the CLECs get what they were already promised. All that Metacomm does is share in the revenues it creates for US LEC - that's it." (Id.)

In response to its partners' internal debate concerning whether to allow customers to access its network, Metacomm proposed selling its network to US LEC. In an April 29, 1998 letter to Messrs. Ganatra and Aab setting forth his proposal, Mr. Finn wrote:

> [W]e understand the value of 18 nailed-up DS3s switched through US LEC facilities over the next year. We know of US LEC's ability to take advantage of "ride" a similar third party Interconnect Agreement through July of 1999. We appreciate that US LEC has greatly and recently benefited from the revenue and earnings that we have mutually generated. We recognize that US LEC will accrue additional benefits through an acquisition of Metacomm. We feel compelled to remind you that we have done everything you have asked of us (and more) and have clearly operated with nothing but US LEC's best interest in mind.
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> * * *
>
> It would be our intention to work closely with you to ensure the surviving entity would be integrated into US LEC's business plan, or into a separate plan with the goal of a data services arm which could achieve a significant valuation of its own. This entity has been described to you before. We feel we could build a valuable company which supports the education goals of Learningstation.com and exploit the emerging "net PC" concept through BusinessStation.com. These entities each have growth plans which extend past the November time frame (when the interconnection agreement expired) and are more suited to meeting the goals of the surviving entity without the encumbrance of not matching the goals of the current Metacomm owners.

(Finn Dep. Ex. 37.) (emphasis in original). In a subsequent letter, Mr. Finn stated that his proposal to sell Metacomm to US LEC "should accomplish three objectives:"

1. To replace the current ownership of Metacomm with a team that has a longer-term view of the business opportunity, is willing to share the risks, and would re-engineer the current network to support end user traffic: Metacomm's current members want "out", its investors have lost confidence. US LEC's agenda and that of Metacomm's seems to have diverged, causing a strain on continued relations that do not serve anyone's interest.

2. During this period of uncertainty, the "new team" will...enable the network re-engineering effort....

3. Learningstation.com needs to be funded so that it could reasonably expand its sales, marketing and implementation force to create the demand which supports the network re-engineering effort...

(Ex. WKM-48.)

In response to Mr. Finn's inquiry about a buyout, Mr. Ganatra gathered and sent to Mr. Aab the "raw data" Mr. Ganatra believed US LEC needed to make a decision about acquiring Metacomm. (Ex. WKM-47.) The "raw data" consisted solely of a spreadsheet setting forth the money US LEC stood to earn based on 15 Metacomm DS3s generating traffic at a rate of 98% of capacity.

In response to US LEC's demand, Metacomm began soliciting end-user customers for its network in March of 1998. According to Andy McIntosh's sworn testimony, "[t]he first customers were placed on the network in May of 1998."[6] (Tr. Vol. 7, p. 149.)

Metacomm offered potential customers free Internet access via its "test network" if the customer agreed to allow Metacomm to install at least four PRIs (92 circuits) and a router on the customer's premises. (Tr. Vol. 1, p. 101.) Metacomm made its offers for free access on a "take it or leave it basis," such that the customer was faced with accepting far

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[6] Mr. Carwile testified at his deposition that at the time he stopped working for Metacomm in June 1998, there were no customers accessing the Metacomm network. In addition, dates Mr. McIntosh represented in Exhibit 3 to his testimony that Metacomm first signed up customers and the date those customers were in fact given access to the Metacomm network differ significantly. For example, Mr. McIntosh's Exhibit AM-3 shows some of the Mecklenburg Area Catholic Schools as coming onto the Metacomm network in March 1998. Mr. Crovi, the technology director for the Catholic Schools testified, however, that the schools did not even decide to use Metacomm's network until April 1, 1998, and that no facilities were installed until the Summer of 1998, after the end of the school year. (Tr. Vol. 7, pp. 57, 66-67.) He also testified that the schools did not begin to use the network to its full potential until January of 1999. (Tr. Vol. 7, pp. 67-68.)

Mr. Self from the Shelby School District testified that the Shelby Schools did not access the Metacomm network until Christmas of 1998, and that all schools in his district were not connected to the network until February of 1999. This is in stark contrast to Mr. McIntosh's exhibit showing the Shelby Schools as coming on line in August of 1998.

more capacity than it needed or refusing Metacomm's free offer. Mr. Self from the Shelby City Schools testified at the hearing, for example, that the sole reason that he accepted Metacomm's offer was because it was free, and that he understood the offer for four PRIs per school to be a take it or leave it offer. (Tr. Vol. 7, pp. 37-41.) Mr. Boykin from Meineke Muffler testified that his understanding and reason for accepting Metacomm's offer was the same. (Tr. Vol. 5, pp. 91-92.)

In addition, in order to induce customers to sign on for free access to its network, Metacomm implied to potential customers that BellSouth had knowingly "joined forces" with Metacomm to provide this free service. (Tr. Vol. 5, p. 94; Ex. WKM-34.) Metacomm promised that free access to its "test network" would continue through at least June 15, 1999, the date the BellSouth-US LEC 1998 Agreement was set to expire. (Tr. Vol. 1, p. 101.) Since adopting the 1999 Agreement this past summer, Metacomm has continued to allow virtually all of its customers to access the network at no cost. (Tr. Vol. 7, pp. 222-224.) Metacomm paid sales agents more than $400,000 ($25,000 per customer) to persuade customers to sign up for this free access to Metacomm's network. (Tr. Vol. 7, pp. 224-226; McIntosh Cross-Exam Ex. 4; Metacomm's response to Interrogatory No. 3 of BellSouth's Second Set of Data Requests.)

In order to provide end-user customers access to its network, Metacomm placed a router on the customer's property. It connected the router to clusters of primary rate ISDN lines (PRIs) or, in some cases, to a DS3, which Metacomm leased from BellSouth and had installed at its customer's premises. The ISDN lines Metacomm placed at customer locations connected Metacomm's router on the customer's premise to the BellSouth central office serving the customer. Metacomm programmed the routers to dial US LEC telephone numbers so that the connections were transported through BellSouth's switch to US LEC's switch in the same city, and then from US LEC's switch over dedicated facilities to another Metacomm router, usually in Raleigh. (Tr. Vol. 1, p. 102.) It costs Metacomm $685,000 a year to serve each customer. (Tr. Vol. 7, pp. 233-234.)

As with all of the connections it established, Metacomm programmed its routers located at customer premises to nail up all available circuits and to recycle each connection once every 24 hours so that US LEC could create a billing record. Metacomm's customers could not use these connections for any purpose other than to access the Metacomm network. Accordingly, Metacomm's CEO, Andy McIntosh, testified that Metacomm's customers "would describe it as a dedicated service." (Tr. Vol. 7, p. 167; see also Tr. Vol. 7, p. 163, quoting McIntosh Dep. p. 40.) Metacomm's former CEO, Tom Finn, testified similarly that "Metacomm's customers enjoy dedicated access." (Finn Dep. 37.) According to Metacomm, its network did not become "stable" until December 1998. (Tr. Vol. 7, p. 121.)

Metacomm claims to have 35 end-user customers for its "dedicated service."[7] (Tr. Vol. 7, p. 210.) Its customer base has not increased since September 1998. (Tr. Vol. 7, pp. 214-215.) There is evidence in the record regarding only seven of these customers: Charlie Horse Farm; Meineke Discount Muffler, Inc.; Alexander Children's Center; EDS; Aerial Images; Mecklenburg Area Catholic Schools; and the Shelby City Schools. The evidence shows the following with respect to each of these customers:

Charlie Horse Farm. This Metacomm customer is in the business of boarding horses. Metacomm installed a router and four PRIs at the horse barn so that it could establish 92 connections at one time, and originated connections from the horse barn to a terminating router for approximately one year. The owner of the horse barn testified that he never accessed or attempted to access Metacomm's network. He further testified that Dave Sinnott from Metacomm knew that he was not using Metacomm's network.[8] (Tr. Vol. 1, pp. 104-106; Pharr Dep. 15-17.)

Meineke. Meineke's director of MIS, Max Boykin, testified at the hearing that he allowed Metacomm to install a router and a DS3 at Meineke's location solely because it was free. Mr. Boykin testified that Meineke's sole use of the network consisted of connecting two personal computers to Metacomm's router and using them to access the Internet during working hours for only a couple of months. He said that in October 1998, when Meineke entered into an arrangement for another company to provide all of Meineke's approximately 80 employees with Internet access using only a fraction of the capacity installed free of charge by Metacomm, he disconnected the link between Meineke's computers and the Metacomm router, and Meineke did not use the network for any purpose thereafter. Mr. Boykin told Metacomm's sales agent at the time he accepted the equipment that he may not use the Metacomm network, and later told the sales agent that he was in fact not using it.[9] (Tr. Vol. 5, pp. 105 and 107.)

Shelby City Schools. Metacomm presented the testimony of Mitchell Self from the Shelby City Schools. Mr. Self testified that the Shelby schools signed on to become a Metacomm customer in the fall of 1998. The schools did not begin accessing the

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[7] Metacomm counts each school in the Mecklenburg Area Catholic Schools and Shelby City School District as a separate customer, even though the school system is in reality the only customer. When each school system is counted as a single customer, Metacomm has about 25 customers.

[8] US LEC suggested that the owner of the horse barn ordered facilities to establish an ISP, but the horse barn owner's own testimony contradicts US LEC's claim. The horse barn owner, Mr. Pharr, who is also employed by Metacomm's principal sales agent Computer Network Power, testified that he would not have accepted the facilities if there was any cost to him, and that he "just don't care to play with computers" when he gets home from his job as a computer consultant. (Pharr Dep. 16, 21.)

[9] Metacomm likewise knew that its customer UNCC was not using its network. (See Sinnott Dep. Ex. 27.)

Metacomm network until Christmas of 1998, and all schools were not connected until February of 1999. The Shelby schools do not use the Metacomm network to access Learningstation's applications. Mr. Self testified that the sole reason he chose Metacomm over a competing proposal from BellSouth was that Metacomm was offering access to its network free of charge. He did not have any choice with respect to the amount of capacity to accept from Metacomm. Mr. Self also testified that actual use of the Metacomm network was confined to school hours. (Tr. Vol. 7, pp. 9-49.)

Mecklenburg Area Catholic Schools (MACS). Michael Crovi from MACS testified that his schools have been using the Metacomm network at full capacity to access the Internet and Learningstation since January of 1999. MACS is the sole customer using the Metacomm network to access Learningstation's applications. Metacomm provides MACs with four PRIs at each school location. Mr. Crovi testified that if MACS has to pay for Metacomm's service, it will cut back to one-half of a PRI at its high school and middle school, and to one-quarter of a PRI at each of its elementary schools, and that this reduced bandwidth would meet the schools' needs. (Tr. Vol. 7, pp. 75-86.)

Alexander Children's Center, Aerial Images, and EDS. All three of these customers testified that they accepted Metacomm's equipment because it was free. All three further testified that they do not use all of the capacity provided by Metacomm, nor do they access the network 24 hours a day. For example, Catherine Brooks from Alexander Children's Center, a group home and learning center for troubled youths, testified that the Center did not give its students access to the Metacomm network. It used the network only to give its approximately 40-50 administrative employees access to the Internet. These employees used the network mostly during business hours. Mr. Anderson for EDS testified that his company uses the Metacomm network to transfer information between its two facilities. He testified that if he had to pay for access to Metacomm's network, he would reduce his capacity from its current level of two DS3s to one DS3. (Anderson Dep. 7-8.)

EVIDENCE IN SUPPORT OF FINDING OF FACT NO. 8

The record conclusively shows that US LEC attempted to avoid revealing its reciprocal compensation imbalance plan to BellSouth. (See, e.g., Tr. Vol. 9, pp. 6-7.) The record is replete with evidence of US LEC and its associates' preference that BellSouth not discover the truth behind the Metacomm network. For example:

- At the outset, US LEC directed the Metacomm principals/MCNC consultants to conceal from BellSouth the true use of BellSouth's facilities. US LEC executive Mike Simmons instructed:

> Be careful we do not spill all the beans here. You should approach this as if MCNC will dial into our [US LEC's] facilities, but will not be online all of the time. In other words

> they may have all trunks connected to us [US LEC] at the same time, but not all of the time. MCNC will be telling BELLSOUTH that they will be dialing "others" not just us.

(Tr. Vol. 1, p. 134; see also Ex. WKM-81.) (emphasis added).

- After MCNC's initial turn-up of massive numbers of empty circuits in Raleigh created problems in BellSouth's end offices and BellSouth asked who the connections were being established with, Andy Carwile told BellSouth network personnel that they were "mostly going through a CLEC" and "did not provide the CLEC name." All connections were, in fact, being directed to US LEC. (Tr. Vol. 9, pp. 8-9; Grefrath Cross-Exam Ex. 1.)

- When BBS representatives asked Metacomm about their applications in an effort to better serve their customer, Metacomm refused to disclose its plans, citing confidentiality concerns. They remained steadfast in this position even when BBS offered to enter into confidentiality agreements, as it commonly does with its customers. (Tr. Vol. 5, pp. 10-12, 26-27.)

- US LEC had Metacomm and MCNC each confirm in a "side letter," rather than as part of their reciprocal compensation commission agreements with US LEC, that the traffic generated on their networks was local and not subject to the ISP dispute between BellSouth and US LEC, so that in the event US LEC had to prove the Metacomm and MCNC traffic was not subject to its separate dispute with BellSouth concerning ISP traffic, US LEC would "not need to show the [reciprocal compensation sharing] contract." (Tr. Vol. 9, pp. 15-19; Grefrath Cross-Exam Ex. 3.)

- When MCNC, after learning the truth about what its consultants intended to accomplish in conjunction with US LEC, told US LEC that it planned to tell BellSouth's North Carolina president, Billie Ray, of its contractual arrangement with US LEC, and that it had been duped by its former consultants and US LEC into establishing its reciprocal compensation network, US LEC threatened to sue MCNC for breach of the nondisclosure provision in the commission agreement. Dr. Hart responded with his "solemn oath...that [MCNC's] discussions with BellSouth would

not mention US LEC in any fashion whatsoever."[10] (Tr. Vol. 1, p. 135; Ex. WKM-82; see also Williams Dep. Ex. 317)

- US LEC insisted that its name not be connected in any way with the Metacomm or MCNC reciprocal compensation networks. US LEC's name is not listed with all of Metacomm's other vendors in Metacomm's contract offering "free service," even though there would have been no offers of free service but for US LEC. US LEC likewise instructed that it not be mentioned in connection with MCNC's "Education Initiative," even though it would have provided one-half of the telecommunications facilities if the initiative was to become a reality and receive free publicity for its participation in a seemingly worthwhile endeavor.

- US LEC demanded that Metacomm take US LEC's name out of a memorandum which Metacomm planned to send to a potential customer. (Finn Dep. Exs. 67, 68.)

- Metacomm told BellSouth that it had competing proposals from US LEC to provide originating facilities in order to obtain better pricing from BellSouth. It later admitted that this was not true. (Tr. Vol. 5, p. 23; Metacomm's response to Interrogatory No. 25 of BellSouth's Second Set of Data Requests.)

- Mr. Aab required that Metacomm's partners agree not to disclose anything about Metacomm's or US LEC's businesses or the two parties' contracts as a condition of Mr. Aab's acquisition of Metacomm.

- When BellSouth refused for many months to pay US LEC's invoices for reciprocal compensation for Metacomm and MCNC traffic pursuant to its mistaken belief that the billed minutes were attributable to ISP traffic, US LEC did nothing to correct BellSouth's misperception. US LEC was apparently willing to wait for an expected favorable decision in the ISP dispute and then take BellSouth's money, paid under the mistaken belief that it was for ISP traffic.

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[10] Dr. Hart apparently kept his oath. Alan Blatecky accompanied Dr. Hart to Hart's one meeting with Mr. Ray. Blatecky testified that they discussed in general MCNC's termination liabilities to BellSouth as a result of canceling the contracts pursuant to which MCNC was purchasing facilities from BellSouth and that Mr. Ray referred MCNC to a BBS manager. Mr. Blatecky testified that the discussion with Mr. Ray did not include any mention of MCNC's reciprocal compensation commission arrangement with US LEC. Mr. Ray was deposed in this matter and his recollection was the same. BellSouth stated in response to data requests that it first learned of US LEC's reciprocal compensation sharing agreement with MCNC in July 1998. (See BellSouth's response to Interrogatory Nos. 18 and 19 of US LEC's 2nd Set of Data Requests.) BellSouth did not confirm the existence of US LEC's identical agreement with Metacomm until it was able to conduct discovery in this proceeding.

US LEC and Metacomm were successful in not revealing their reciprocal compensation plan to BellSouth for many months. Indeed, BellSouth was constrained to make the substantive allegations in its Complaint upon information and belief.

BellSouth first became suspicious about the use to which Metacomm was putting the circuits it was ordering from BellSouth following a blockage of BellSouth's interoffice trunks between its Greensboro Eugene Street end office switch and the Greensboro local tandem switch in early-1998. BellSouth discovered that the blockage was caused by a translation error which was directing hundreds of circuits opened by Metacomm to a toll trunk group. In investigating the blockage problem, BellSouth observed that Metacomm's circuits maintained their connections through all of the night and into the next day. BellSouth then "force released" the trunks that Metacomm was using and that were blocking the entire trunk group. The released lines stayed idle for about five minutes and then reconnected all at one time. (Tr. Vol. 1, pp. 75-76.)

As a result of this extraordinary event, BellSouth sought to determine whether traffic was actually being carried over the nailed up connections or if a problem condition existed that would preclude the trunks being used by other end-user customers. BellSouth performed tests on a sample of Metacomm circuits and discovered that although most of those circuits were connected for over 20 hours per day, no telecommunications were flowing over those trunks. (Tr. Vol. 1, p. 76.)

BellSouth conducted an extensive internal investigation to attempt to determine why Metacomm was keeping lines open continuously with no information flowing over those lines. At about the same time BellSouth concluded its investigation in late-June/early-July 1998, BellSouth obtained a copy of the reciprocal compensation commission agreement between US LEC and MCNC. The existence of this agreement together with information gathered by BellSouth that Metacomm would not disclose its use of the BellSouth lines, caused BellSouth to suspect that US LEC had a similar reciprocal compensation commission arrangement with Metacomm. BellSouth wrote to US LEC, cited the results of its investigation, and stated its position that it did not believe reciprocal compensation was due for continuously open, empty circuits. The parties met on July 31, 1998, but did not reach a resolution. Consequently, BellSouth filed its Complaint and Request for a Declaratory Ruling initiating this proceeding. (Tr. Vol. 1, pp. 76-77.)

EVIDENCE IN SUPPORT OF FINDING OF FACT NO. 9

BBS and BellSouth Telecommunications, Inc. are separate corporate entities, but both are subsidiaries of BellSouth Corporation. BBS sells and implements installation of telecommunications facilities and services to business customers. BBS employees have an obligation to keep information pertaining to its customers confidential, and not share the information with other entities within BellSouth. (Tr. Vol. 5, p. 10.) BBS has no

responsibility for regulatory issues or interconnection agreements with CLPs. (Tr. Vol. 5, p. 12.)

Metacomm, as a customer of BBS, never told BBS that it planned to nail up connections to US LEC regardless of whether any traffic was actually flowing over those connections. (Tr. Vol. 5, p. 14.)

Metacomm's secrecy with BBS regarding its applications and its network was unusual.. Some BBS representatives speculated as to what Metacomm might be doing. (Tr. Vol. 5, p. 14.) One BBS employee speculated that Metacomm traffic "might" be terminating at a CLP to permit the CLP to bill BellSouth for reciprocal compensation, but that employee believed that BellSouth had gone on record taking the position that it would not pay reciprocal compensation for traffic terminating to an Internet service provider and therefore dismissed the idea. The employee also could not understand how Metacomm would benefit from payments to a CLP. (Tr. Vol. 5, p. 16.)

No one from BBS took action to bring suspicions regarding the configuration of the Metacomm network to the attention of someone within BellSouth's organization that might have led to an investigation. Early on, BBS employees did not see it as their jobs to "police" Metacomm's activities. (Tr. Vol. 5, p. 17.)

In early 1998, some employees of BBS apparently had some understanding of the general concept of reciprocal compensation and possibly the potential for calls being routed to a CLP generating high levels of reciprocal compensation. (Tr. Vol. 5, pp. 43-44.) Around January 8, 1998, a meeting took place between BBS personnel and Metacomm personnel. Notes from that meeting reflect that there were statements to the effect that the network would be a "closed environment" and that computers would "only call each other." (Tr. Vol. 5, pp. 48-49.) Around January 18, 1998, 33 people within either BBS or BellSouth Telecommunications, Inc. had notice of a conference call regarding implementation of Metacomm's equipment. Those persons had notice of what the equipment was, and that Metacomm was going to be connecting to CLPs. (Tr. Vol. 5, p. 80.) Around the early summer of 1998, BBS was told that Metacomm's connections were going to a CLP or to CLPs. (Tr. Vol. 5, pp. 51-52.)

By September 1998, BellSouth had filed a complaint against US LEC with the Commission. BBS understood that Metacomm played a role in the US LEC practices upon which the complaint was based. When BBS learned of the complaint, it asked for instructions as to how to deal with Metacomm. It received instructions to continue treating Metacomm like any other customer. (Tr. Vol. 5, p. 18.)

EVIDENCE IN SUPPORT OF FINDING OF FACT NO. 10

US LEC does not dispute the fact that it has billed BellSouth for every minute of every connection established between routers on the MCNC and Metacomm networks. It does not dispute the fact, due to the enormous billings of Metacomm and MCNC traffic, it had billed BellSouth 78 times the amount of reciprocal compensation that BellSouth had billed it through May 1999. At the time of the hearing in this case in August 1999, Metacomm had stabilized its network to the point that it was able to generate more than 650 million minutes of essentially empty connections between its routers per month, resulting in monthly reciprocal compensation billing by US LEC to BellSouth of more than $8.5 million for Metacomm traffic alone. Metacomm traffic accounts for nine out of every 10 minutes of use for which US LEC bills BellSouth reciprocal compensation. By the end of 1999, if monthly billings continued on the same level, US LEC's reciprocal compensation billings for Metacomm traffic would be approximately $150 million.

EVIDENCE IN SUPPORT OF FINDING OF FACT NO. 11

The Metacomm network configuration -- routers nailing up connections to other routers — creates effectively dedicated circuits. The location of the "originating router" at a customer's premises rather than at a Metacomm POP site does not change the analysis. Metacomm programmed its routers at customer locations to nail up every available circuit on a virtually 24-hour basis, regardless of customer need or usage, thereby providing what Metacomm's CEO himself described as a "dedicated service."

All parties agree that actual usage, if any, is irrelevant to the question of whether every minute of use generated by the Metacomm network is compensable. US LEC and Metacomm contend that reciprocal compensation is due for every minute that a router held a circuit open to another router. According to US LEC and Metacomm expert witness, Ms. Wallman, the customer "is not a factor." (Tr. Vol. 9, p. 113.) Her testimony is clear on this point:

> Q. So for purposes of your analysis basically it doesn't matter whether Metacomm has customers or whether it doesn't have customers. And if they do have customers it doesn't matter whether they use the network or not?
>
> A. True.

(Id.) Consistent with its "customers are irrelevant" position, US LEC maintains, for example, that reciprocal compensation is due for the millions of minutes of use attributable to connections established by the Metacomm router at Charlie Horse Farm, even though the horse barn owner never used the Metacomm network for any purpose. Consequently,

according to US LEC, Metacomm's failure to measure any actual customer usage does not render otherwise compensable minutes of use noncompensable.

Even if the Commission had concluded that there is some basis upon which minutes of actual usage by Metacomm's end-user customers might be compensable, which it has not, there is no competent, material, and substantial evidence in the record upon which to estimate actual customer minutes of use in a reasonably accurate way. First, there is direct record evidence that only six customers – MACS, Meineke, Shelby City Schools, EDS, Aerial Images, and Alexander Children's Center – used the network in any way. The evidence is that Metacomm customer Charlie Horse Farm never used the routers Metacomm placed at its facilities and that Meineke used it in a limited way for only a short period after the Metacomm router at its premises began "pumping minutes" to US LEC. Other than these six customers, there is no specific basis in the record to conclude that any other Metacomm customer used the network at all. To reach such a conclusion would be purely speculative. Given the tenacity with which US LEC and Metacomm conducted discovery and advocated their case, the Commission notes that US LEC and Metacomm did not present any evidence of actual usage by the 20 or so other Metacomm customers.

For the six customers who appear to have used Metacomm's network, there is no competent, material, and substantial evidence upon which to estimate their usage. Metacomm supplied each of them, on a take-it-or-leave-it basis, with capacity which exceeded their needs. Thus, even if a customer estimated that it used the Metacomm network for 50% of a school day (as opposed to the 24 hours a day that the routers on his premises were connected to Metacomm's terminating routers), there is no way to know whether the customer's usage would have been supported by a fraction of the capacity installed by Metacomm. The fact that no customer said that it would pay for the capacity provided by Metacomm free of charge, and at least MACS and EDS testified that they would use far less capacity to meet their needs if they had to pay for it — is strong evidence that actual usage (number of circuits x minutes) would have been far less. Thus, there is no defensible way to estimate actual usage for those customers who did use the network. Any estimate of actual Metacomm customer minutes of use would be arbitrary.

CONCLUSIONS OF LAW

Introduction

This docket has presented many challenges to the Commission. It is not simply the sheer volume of the filings and discovery, running into the thousands of pages, nor is it simply the amount of money involved, a conservative estimate of which at this time is well over a hundred million dollars. It is rather the application of the facts — which in a broad sense are largely undisputed or undisputable — to the contract and the law.

Both parties, for reasons of their own, have attributed a degree of clarity to the contracts that they do not possess, coming in the process to directly opposite conclusions. The contracts, it is true, are somewhat deceptive in their simplicity. They are in many ways "garden-variety," first-generation interconnection agreements that on their face appear unexceptionable. They are therefore not the sort of contracts one would find void on their face. For that reason, the Commission must necessarily examine the language of the contracts themselves. The ultimate difficulty which the Commission must confront comes from the interpretation that US LEC seeks to put on the contracts. It is simply not credible to believe that a network such as that which US LEC and Metacomm constructed was within the parties' contemplation when they entered into the contracts. The contracts are ambiguous as here applied to the Metacomm network and require interpretation through extrinsic evidence, especially as to the public interest.

There were, of course, numerous issues that the parties argued forcefully and at great length. These included questions that outwardly appeared simple but, upon closer examination, were extremely complex — issues such as what is a "telephone call" and what constitutes "telecommunications." However, it is the Commission's view that, before even reaching such questions, we must examine whether, in light of what US LEC and Metacomm actually did in constructing their network, the interpretation that they wish to put on the contract is reasonable and in the public interest. Our answer is a resounding "no." Accordingly, the Commission will follow the prudent principle followed by the courts and we will only decide those questions that absolutely need to be decided to reach the appropriate result. Thus, we believe that it is sufficient that we have found, among other things, that the contract is such that its terms must be interpreted in light of the public interest and that the network is an effectively dedicated one. For these reasons, and the others set out below, we have found that US LEC is not entitled to reciprocal compensation.

CONCLUSION NO. 1

The Commission should consider extrinsic evidence in interpreting the Interconnection Agreements.

POSITIONS OF PARTIES

BELLSOUTH: BellSouth believes that the Interconnection Agreements are clear that reciprocal compensation is not due for the traffic at issue, but noted that US LEC argued that they are just as clear that reciprocal compensation is due, regardless of whether any telecommunications traverse the nailed up circuits or whether any customer of Metacomm used them. BellSouth stated that, if the Commission concludes that the Interconnection Agreements are ambiguous on this issue, it may properly consider extrinsic evidence as to the meaning of the contracts. In BellSouth's view, this evidence

demonstrates that the parties did not intend for such traffic to be subject to the reciprocal compensation provisions of the Interconnection Agreements.

US LEC: US LEC maintained that BellSouth has not established that there is any ambiguity in the definition of "local traffic" contained in the Interconnection Agreements that would permit the Commission to look beyond the plain language of those Agreements. Only if such ambiguity is found, and is not resolved through application of the statutory rules of construction, is extrinsic evidence admissible to explain the intent of the parties and resolve ambiguity, US LEC argued.

METACOMM: Metacomm also argued that the contractual terms in this case are unambiguous and that therefore, as a matter of law, the Commission cannot consider extrinsic evidence. The definition of local traffic is straightforward and apparent by reference to everyday experience and the Commission's Order in Docket No. P-55, Sub 1027. Metacomm stated that BellSouth is attempting to interject new terms and qualifications on otherwise unambiguous language rather than attempting to ascertain a correct interpretation of a term that is fairly susceptible to more than one meaning. If ambiguity is found, parol evidence is admissible to explain the intent of the parties and resolve the ambiguity. Metacomm stated that, assuming for the sake of argument that the Commission considers extrinsic evidence, the evidence supports finding that the traffic is local traffic.

DISCUSSION

BellSouth stated that, under Georgia law, which applies to the interpretation of these contracts, the meaning of ambiguous contract terms may be resolved by reference to the conduct of the parties that evidences such intent. Further, it is appropriate to consider industry usage or custom in determining the meaning of a contract provision. BellSouth argued that US LEC knew when it first began operations that the traffic at issue in this case is not the type of traffic for which the parties agreed to pay each other reciprocal compensation. BellSouth contended that, if the traffic was clearly compensable, US LEC would not have done everything possible to conceal its scheme from BellSouth. BellSouth also stated that US LEC allowed BellSouth to labor for months under the misimpression that US LEC's reciprocal compensation invoices to BellSouth were attributable to ISP traffic when it could have told BellSouth and the Commission the truth and demanded payment immediately. Instead, US LEC insisted that Metacomm allow customers access to its network in order to provide a "hedge." US LEC demanded customers even though the Metacomm network supposedly provided compensable local calls without customers.

BellSouth insisted that US LEC knew that BellSouth did not intend at the time it entered into the Interconnection Agreements to pay for minutes of use generated by "nailed up" empty connections originated and terminated by the same party. BellSouth

stated that it has hundreds of Interconnection Agreements with language identical to that in the Interconnection Agreements upon which US LEC relied to make its argument, but no other CLP has argued that reciprocal compensation is due for the type of traffic at issue in this proceeding.

US LEC stated that, assuming there is any ambiguity in the Interconnection Agreements, BellSouth's Access Services Tariff is persuasive evidence of BellSouth's understanding of the terms in the Interconnection Agreements. The tariff contains the words "traffic," "call," and "end user" and, US LEC argued, each of the definitions supports US LEC's reading of those terms. The tariff states that traffic simply "denotes a volume of IC [interexchange carrier] access **minutes of use or calls.**" (Emphasis supplied). BellSouth cited to no statement of intent by the parties in the contract, no industry practice, no industry definition, and no case that defines "local traffic" or "traffic" according to anything other than minutes of use.

Further, US LEC stated that the definition of a "call" in the Access Services Tariff contains none of the limitations which BellSouth is seeking to impose. The tariff states that a call denotes a customer communications attempt in which the complete address code is provided to the serving dial tone office. It begins with an off-hook signal initiated by an interexchange carrier or end user (calling party) and concludes with an on-hook signal after attempted or completed communication to an end user (called party) or to an interexchange carrier terminal location. US LEC stated that BellSouth's definition is consistent with the industry definition, and that a "telephone call" is generally understood in the industry as "any demand to set up a connection...[t]he actions performed by a call originator...[t]he operations required to establish, maintain, and release a connection...[t]o use a connection between two stations." US LEC asserted that Metacomm and MCNC meet these definitions.

BellSouth defines the term "end user" in the Access Services Tariff as follows: "any individual, partnership, association, corporation, governmental agency, or any other entity which (A) **obtains a common line, uses a pay telephone or obtains intrastate service arrangements in the operating territory of the Company or** (B) subscribes to intrastate service(s) provided by an interexchange carrier or uses the services of the interexchange carrier when the interexchange carrier provides intrastate service(s) for its own use." (Emphasis supplied). US LEC stated that Metacomm and MCNC obtained local services from BellSouth in its operating territory, and were plainly BellSouth's subscribers and end users.

In US LEC's view, BellSouth's performance of its contracts is also persuasive. BellSouth has treated Metacomm and MCNC as end users, customers, and subscribers. The offerings made by BellSouth to Metacomm and MCNC were standard switched local services offered through special assemblies and the sums billed to Metacomm and MCNC were retail, not wholesale, prices.

US LEC contended that if its claim for reciprocal compensation is denied, the Commission will be disregarding the "clear language" of the Interconnection Agreements between the parties, and will in essence be rewriting the contracts in order to provide BellSouth with retroactive protection against an unforeseen risk. As evidenced by the preceding discussion, however, the terms of the contracts are by no means as clear as US LEC asserts. The evidence shows that when the Interconnection Agreement was originally negotiated by the parties and approved by the Commission in 1997, US LEC and BellSouth believed that the flow of reciprocal compensation between them would be roughly balanced, or possibly favorable to BellSouth. At that time, the idea of setting up a network of routers and high-volume lines, in order to generate the greatest possible number of calls and the largest possible claim for reciprocal compensation, had not come to the mind of either party. The evidence at the hearing showed that the first discussions that ultimately led to the development of the Metacomm network took place in 1997. When US LEC and BellSouth negotiated the Interconnection Agreement in 1996, the circumstances which have now developed were completely unforeseen. This is not a case in which the language of the parties' contract is clear and unambiguous and leaves no room for interpretation. Rather, the terms of the agreement, as applied to this unanticipated situation, are ambiguous and actually require interpretation by the Commission.

In summary, common sense dictates that extrinsic evidence should be considered in this proceeding. BellSouth and US LEC/Metacomm argued that the Interconnection Agreements are clear on their faces, but each party claims that the Agreements support its position. Thus, there appears to be ambiguity, and extrinsic evidence may lawfully be considered. Further, consideration of extrinsic evidence is not only lawful, but is necessary in order to reach conclusions with regard to certain important issues in this proceeding. Consideration of the intent of the various parties, and the parties' conduct that evidences such intent, will be useful in reaching conclusions on these questions. Further, consideration of industry usage or custom in determining the meaning of particular contract provisions will be useful.

CONCLUSION NO. 2

The public interest requires that the Interconnection Agreements be construed in such a way as to disallow the payment of reciprocal compensation for the networks at issue.

POSITIONS OF PARTIES

BELLSOUTH: BellSouth argued that the Commission must consider public policy in rendering a decision in this matter. BellSouth believes that since Metacomm and MCNC originated traffic for the purpose of generating reciprocal compensation, the Commission should find the traffic noncompensable for public policy reasons.

US LEC: US LEC stated that public policy may be considered in determining whether the minutes of use in this proceeding are compensable under the terms of the Interconnection Agreements. US LEC argued that in order to foster the growth of competition and innovation in North Carolina, public policy requires enforcement of the Interconnection Agreements according to their terms. Further, US LEC believes that the public policy in North Carolina does not permit retroactive elimination of valid reciprocal compensation obligations once they have accrued. However, US LEC maintained that public policy should not be invoked in this proceeding to relieve BellSouth from its obligations to pay reciprocal compensation for minutes of use on the MCNC and Metacomm networks.

METACOMM: Same as that of US LEC.

DISCUSSION

BellSouth maintained in its Brief that the General Assembly has charged the Commission with the responsibility to protect the public interest by supervising and controlling public utilities operating in North Carolina. BellSouth pointed out that US LEC witness Wallman candidly acknowledged that the Commission's first and foremost responsibility is to protect the public interest and that the Commission could and should consider its public interest responsibility in determining the compensability of the traffic in question. BellSouth argued that under the public interest analysis of the record in this case, the Commission can make only one conclusion and that is that US LEC is not due reciprocal compensation for Metacomm traffic. Further, BellSouth concluded in its Brief that Section 62-2 of the North Carolina General Statutes declares it to be the public policy of the State to "protect fair regulation of public utilities in the interest of the public," to "prevent unfair or destructive competitive practices," "to assure that facilities necessary to meet future growth can be financed by utilities operating in this State on terms which are reasonable and fair to both the customers and existing investors of such utilities," and to "encourage and promote harmony between public utilities." BellSouth pointed out that numerous provisions in Chapter 62 give the Commission authority to protect the public interest through its regulation of public utilities. BellSouth also stated in its Brief that the Metacomm network unnecessarily utilizes an enormous amount of capacity in BellSouth's switches which would be available for use by legitimate customers in actual need of the switching functions for which the switches were designed and installed, and BellSouth network personnel could devote their time to serving legitimate customers rather than installing and maintaining facilities over which Metacomm generates meaningless traffic 24 hours a day. Finally, BellSouth also stated in its Brief that since the filing of its Complaint until the present, BellSouth has consistently stressed the propriety and importance of a public interest analysis of the US LEC/Metacomm reciprocal compensation scheme while US LEC and Metacomm have attempted to persuade the Commission that consideration of public policy is irrelevant and unnecessary, and that the Commission's

analysis should begin and end with a determination of what the Interconnection Agreements mean.

BellSouth maintained in its Brief that the traffic in question violates public policy for the following reasons:

(1) The traffic was originated for the sole purpose of generating reciprocal compensation;
(2) Determining the traffic to be compensable would harm competition in the State;
(3) Other regulatory bodies and courts have ruled that analogous schemes violate public policy; and
(4) The Commission should pierce the corporate veil between US LEC and Metacomm.

BellSouth argued in its Proposed Order that Metacomm and MCNC originated the traffic at issue for the purpose of generating reciprocal compensation. BellSouth maintained that the Commission should conclude that traffic generated for the purpose of generating reciprocal compensation is not subject to the payment of reciprocal compensation.

Further, BellSouth stated in its Brief that local telephone competition in this State would be harmed severely by granting US LEC, or any other provider that is interested in performing the same scam, what amounts to a license to print money. Additionally, BellSouth argued in its Proposed Order that if the Commission adopts the interpretation of "local traffic" recommended by US LEC and concludes that reciprocal compensation is due for the minutes of use at issue here, the Commission's decision would seriously damage the development of local telephone competition in North Carolina. BellSouth argued that such a decision would be contrary to public policy and would be a disincentive for carriers to compete for and serve genuine customers.

BellSouth also stated in its Proposed Order that finding the traffic noncompensable is sound public policy and consistent with rulings of other regulatory bodies and courts. BellSouth argued in its Brief that the Federal Communications Commission (FCC) addressed in rulemaking proceedings a similar get-rich-scheme. BellSouth stated that the FCC ruled that calls placed for the purpose of generating compensation are noncompensable.

Finally, BellSouth maintained that Metacomm did not operate independently from US LEC, but rather, as US LEC's agent in carrying out its reciprocal compensation plan and that the connections established by Metacomm were the equivalent of US LEC keeping lines open to itself. BellSouth argued that allowing the payment of reciprocal compensation for such connections would be contrary to the public interest. BellSouth

stated in its Brief that the case breaks down to a Richard Aab-owned company (Metacomm) calling numbers furnished by another Richard Aab-owned company (US LEC) in order to create revenue for two companies he owns and controls. BellSouth concluded that in its role of protecting the public interest from destructive competitive practices, the Commission should pierce the corporate veil and conclude that no reciprocal compensation is due.

US LEC and Metacomm stated in their Joint Proposed Order that the law is clear that the liberty to contract carries with it the right to exercise poor judgment in business transactions and that the Commission should not rescue BellSouth, on public policy grounds, from strategic decisions that later turn out to have unintended consequences. US LEC and Metacomm maintained that the evidence demonstrates that BellSouth's senior management was involved in, and aware of, the terms of the Interconnection Agreements with US LEC, as well as interconnection agreements with other CLPs. Further, US LEC and Metacomm stated that BellSouth failed to prove that Metacomm was transmitting sham traffic for the sole purpose of generating reciprocal compensation, that US LEC's agreement to share reciprocal compensation with Metacomm was an unlawful kickback, and that Metacomm's traffic interfered with the public switched network. Therefore, US LEC and Metacomm argued, BellSouth failed to demonstrate a sufficient public policy justification to abrogate the terms of the Interconnection Agreements. Further, US LEC and Metacomm argued that there is nothing wrong with US LEC and Metacomm availing themselves of the opportunity that the excessive reciprocal compensation rate presented and that such a response should be expected from new entrants in a competitive marketplace. US LEC and Metacomm recommended that the Commission agree with witness Wallman that, in future cases, the Commission will be able to use objective criteria to protect the public interest from allegedly sham traffic.

US LEC, in its Brief, outlined the following issues for the Commission to consider when evaluating public policy in this case:

(1) North Carolina and Federal telecommunications policies require the unyielding enforcement of the Interconnection Agreements to foster the paramount telecommunications policies of local competition and innovation and BellSouth's hostility to competition and innovation motivates its strategy here;
(2) Enforcing contracts as written is a paramount public policy that controls this case;
(3) Retroactive modification of the Interconnection Agreements is beyond the Commission's authority;
(4) Having failed to prove its allegations of "sham traffic" and "kickbacks", BellSouth has utterly failed to offer a public policy justification for rewriting or abrogating the Interconnection Agreements;

(5) BellSouth created an attractive revenue opportunity by insisting that the Interconnection Agreements contain a reciprocal compensation rate substantially above cost; therefore, if the Commission wants to address the root cause of this proceeding and any concerns it might have about the amount of reciprocal compensation at issue, it must address one and only one issue: BellSouth's above-cost interconnection rates; and

(6) BellSouth's arguments and the Commission's finding in the Fresh Look proceeding should apply here.

US LEC asserted in its Brief that the Commission must give priority to the policies given priority by the General Assembly, which has emphasized the desirability of competitors to the ILECs and price and service competition in the marketplace. Likewise, US LEC pointed out that TA96 is intended to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans, and to do so by opening all telecommunications markets to competition.

US LEC further stated in its Brief that the paramount public policy to be guarded and nurtured by the Commission requires the enforcement of the contracts exactly as BellSouth wrote them. Further, US LEC argued that if the Commission found that as a matter of public policy the minutes of use are not compensable, it will do so after US LEC has performed all of the services necessary to be paid for the minutes of use. US LEC maintained that this would be a retroactive modification of the Interconnection Agreements that would amount to a refund to BellSouth and would be anticompetitive. US LEC stated in its Brief that the fundamental policy the Commission is bound to implement in this case is the protection of the sanctity of contract.

US LEC further argued in its Brief that in North Carolina, the law of contracts and the public policy doctrines encompassing that body of law are a bona fide public policy of this State. US LEC maintained that there can be no doubt that BellSouth was competent to contract and that BellSouth failed to prove that US LEC did anything but negotiate fairly and honorably. Further, US LEC argued that for the marketplace to work, there must be certainty in the terms, whether wise or not, that govern the relationship between the contracting parties. US LEC stated that if BellSouth's senior executives who formulated BellSouth's policy with respect to interconnection with CLPs across its territory erred, it should not be a public policy goal of the Commission to protect the multi-billion dollar behemoth from its own greed.

US LEC also maintained in its Brief that if the Commission were to rewrite the Interconnection Agreements to relieve BellSouth of any part of its obligation to pay reciprocal compensation for Metacomm or MCNC traffic, it would be retroactively rewriting the Interconnection Agreements to deny US LEC its contractual benefit after US LEC's right to payment had accrued, in violation of North Carolina law. US LEC argued that BellSouth seeks excuse from its payment of reciprocal compensation based on its value

judgments that there is no public policy benefit flowing from the telephone calls at issue. US LEC stated that the Commission must think long and hard before it follows BellSouth down the path of allowing retroactive challenges to reciprocal compensation obligations based on criteria invented after the fact since this path would lead to administrative gridlock.

Additionally, US LEC argued in its Brief that not just any public policy is grounds to abrogate the Interconnection Agreements. US LEC maintained that BellSouth has attempted to argue that public policy should not allow that reciprocal compensation be paid in order to prevent the generation of "sham traffic", the payment of kickbacks or the growth of "reciprocal compensation machines" which US LEC argued BellSouth was unable to prove. US LEC stated that in its opinion BellSouth's public policy justification for abrogating and rewriting the Interconnection Agreements boils down to nothing more than BellSouth does not want to pay. US LEC also noted in its Brief that BellSouth has no less than admitted that the only "public policy" at issue for BellSouth is to save money since BellSouth has admitted that but for the money BellSouth must pay US LEC in reciprocal compensation, BellSouth is indifferent to how US LEC or Metacomm build or design their networks. US LEC also maintained that in the absence of threat to a well-defined and dominant public policy that proves the illegality of the Interconnection Agreements is clear and certain, BellSouth has no grounds to seek modification or abrogation of its contractual obligations to US LEC. US LEC quoted Wallihan v. Hughes, 82 S.E.2d 553, 558 (Va. 1954) which states "...and courts are averse to holding contracts unenforceable on the ground of public policy unless their illegality is clear and certain."

Further, US LEC maintained in its Brief that it is beyond question that BellSouth insisted on the above-cost rate to create the revenue opportunity that it claims should not now be enforced. US LEC asserted that it had no choice but to respond to the risk by soliciting, when it could, businesses that it hoped would have high volumes of terminating traffic. US LEC maintained that it not only had a legal right, but an obligation to avail itself of the revenue opportunity that the reciprocal compensation rate presented. US LEC stated that had it not done so, its viability as a competitor was threatened. US LEC stated that technological innovations like the one Metacomm created are generally the product of the revenue opportunities that are created by above-cost prices or rates. US LEC maintained that whether called arbitrage or good business sense, the result is public benefit from the innovation itself and from correction of price anomalies. US LEC mentioned that international call-back was a technological innovation that developed to take advantage of revenue opportunities but was attacked as fraudulent. US LEC stated that in the end, it was found that call-back services could place a significant downward pressure on foreign rates to the ultimate benefit of United States' ratepayers and that the service promoted the public interest by providing increased competition. US LEC further maintained in its Brief that if there is a public policy issue to be addressed, and if the Commission believes that it would have been preferable for MCNC and Metacomm to configure their networks without factoring in revenue from reciprocal compensation, the

only way to ensure the lowest-cost network design and operation is to attack the root cause of the problem – BellSouth's imposition of above-cost interconnection rates. US LEC stated that today to its knowledge only one contract exists that still contains such a high reciprocal compensation rate (that contract expired on December 31, 1999). US LEC argued that market forces are correcting the root cause of the problem, just as market forces corrected the root cause of the international call-back controversy.

Finally, US LEC argued in its Brief that historically BellSouth has been one of the loudest opponents of efforts by others to persuade the Commission to abrogate contracts on public policy grounds. US LEC stated that in the Fresh Look proceeding, BellSouth argued that the Commission had no authority to abrogate the contracts CLPs made with BellSouth pursuant to N.C. General Statue Sections 62-134(j) and 62-133.5(f) which contain pre-competition provisions in BellSouth's favor. US LEC stated that BellSouth stated in its reply comments in that proceeding that, "[i]t strains credulity to assert now that the General Assembly, in light of this *explicit* move *away* from regulation, had somehow *implicitly* granted the Commission authority also to eviscerate the very contracts it had made available to telecommunications public utilities." The Commission agreed with BellSouth, holding that the statutes and case law cited by the Fresh Look proponents "did not constitute the clear grant of authority necessary to justify and support Commission intervention in statutorily-authorized, valid and binding contracts between ILECs and their customers."

In its Brief, Metacomm outlined the testimony of US LEC witness Wallman where witness Wallman stated, "Yes, I believe that the Commission could decide that at some – that if a business were not real, if a business were a sham, a contention that I believe is not seriously raised in this record based on what I've heard and read, that the Commission could decide that in the public interest that compensation should not be paid. But I say again I'm confident, based on what I've seen, that the Commission need not have any doubt here that this is a real business, with a real business plan, with real financing, with real talented people who are working on it, that aims to deliver a vision and services like scalable broadband. And I think they're comfortably on the right side of the line here." Metacomm argued that none of BellSouth's "public policy" arguments justify a departure from the contract. Metacomm further maintained that if the Commission concludes that the configuration used by Metacomm was contrary to public policy, there was no basis upon which Metacomm, or any other entity for that matter, could have known that such a configuration was "unacceptable." Metacomm concluded that the contract must not be abrogated on the basis of such an irrelevant, wrong "policy" goal in a potentially unconstitutional manner. Metacomm also maintained that to the extent that public policy concerns are considered, they favor enforcing the contract since CLPs must be confident that their agreements with ILECs will be honored and enforced.

Based on the evidence in the record and the North Carolina General Statutes, the Commission believes that it should undoubtedly consider matters of public policy in determining whether the minutes of use at issue are compensable. The parties, of course, differ on exactly which public policy considerations should affect the outcome of this case.

Foremost, BellSouth argued that a network that is set up primarily for the purpose of generating reciprocal compensation should not be found to constitute compensable traffic as a matter of public policy. US LEC and Metacomm, on the other hand, argued that the foremost public policy is to require the enforcement of the Interconnection Agreements according to their terms.

* * * *

As noted in the introduction to the Conclusions of Law, the case before us involves the construction of a contract, the terms of which on their face do not appear to be particularly obnoxious. It is in many ways a somewhat ordinary, first-generation interconnection agreement. The concern arises regarding the manner in which US LEC has construed the contract to justify how it has behaved with reference to the contract. The Commission has concluded above that "[t]his is not a case in which the language of the parties' contract is clear and unambiguous and leaves no room for interpretation. Rather the terms of the agreement, as applied to this unanticipated situation, are ambiguous and actually require interpretation by the Commission....Thus, there appears to be ambiguity, and extrinsic evidence may lawfully be considered."

This being the case, the Commission is free to consider whether enforcing the agreement in accordance with the interpretation propounded by US LEC is in the public interest.[11] That the public interest can be considered in construing a contract is well-settled. See, generally 17A AmJur 2d, Contracts, §257-264 (1991); Restatement of Contracts Second §207 (1981) ("In choosing among the reasonable meanings of a promise or agreement or a term thereof, a meaning that serves the public interest is generally preferred"); 3 A.L. Corbin on Contracts §550 (1960); 11 R.A. Lord, Williston on Contracts, §32.18 - 32.19 (4th ed. 1999) ("[C]ontracts affecting the public interest are to be liberally construed in favor of the public interest"). There are also numerous cases in Georgia supporting the proposition that contracts should be construed fairly and reasonably. See Whitney v. Hagan, 65 Ga. App. 849, 16 S.E. 2d 779 (1941); C.V. Hill & Co. v. Winberg, 67 Ga. App. ex, 19 S.E. 2d 430 (1942); Talerica v. Grove Park Plumbing Service, 103 Ga. App. 591, 120 S.E. 2d 36 (1961); Bemco Mattress Company v. Southeast Bedding Co., 196 Ga. App. 509, 396 S.E. 2d 238 (1990). Indeed with respect to public interest consideration in Clear-Vu Cable, Inc. v. Town of Trion, 244 Ga. 790, 262 SE2d 73 (1979), the Georgia Supreme Court wrote:

> [W]e approve the Restatement position insofar as public contracts are concerned that "In choosing among the reasonable meanings of a promise or agreement or a term thereof, a meaning that serves the public interest is

[11]The Commission also believes that enforcing the contract as US LEC would have it would produce an unreasonable result, allowing US LEC to benefit from its own hyper-aggressive practices and doing nothing to further the beneficial purposes of the contract — viz., to facilitate the exchange of substantive traffic across relevant networks in a seamless and effective manner consistent with the requirements of the Telecommunications Act.

generally preferred." Again insofar as public franchises are concerned, we adopt the Restatement view that "Every contract imposes upon each party a duty of good faith and fair dealing in its performance and enforcement."

Moreover, with respect to the regulated industries, the Commission is specifically charged at numerous places in Chapter 62 with protecting the public interest. See e.g., G.S. 62-2(1) ("To provide for fair regulation of public utilities in the interest of the public"); 62-2(3) (prevention of "unfair or destructive competitive practices"); 62-30 (general powers "necessary or incident to the proper discharge of its duties."); 62-31 (power to make and enforce rules which are "reasonable and necessary"); 62-32 (supervisory powers); 62-34 (investigation of companies); 62-37 (investigations); 62-43 (fixing standards, classifications, etc.); and 62-110(f1) (to adopt rules pertaining to telecommunications interconnection and universal service "in a manner consistent with the public interest").

While ordinarily contracts are reasonably clear and do not require extrinsic construction, this is not an ordinary case. Indeed, it is a most extraordinary case, both in the nature of the network constructed and in the immense sums of reciprocal compensation said to be owed. In considering this matter in light of the public interest, one cannot simply look at the facts in isolation but must look at them in their totality. Such facts include:

1. That US LEC and Metacomm are not totally separate and independent companies but are rather owned by the same man, Richard Aab. These companies have entered into a 40% commission agreement to share reciprocal compensation revenues.

2. That US LEC and Metacomm put together their network with the generation of reciprocal compensation being its "driving force." However, the BellSouth switch was not as a technical matter necessary to provide the service which they sought to provide.

3. That, to that end, US LEC and Metacomm kept the routers "nailed up" on a 23 hour, 59 minutes per day, 7-day per week basis, taking them down for one minute per day only for billing purposes.

4. That, for a significant period of the life of this network, there were no customer end-users on this network. Nevertheless, US LEC is claiming compensation for a period of time in which only signaling data was exchanged over the network.

5. That the number of customer end-users is relatively insignificant and many have been provided with capacity far exceeding their needs. Such customers were initially provided this service for "free."

6. That, as of August 1999, US LEC has invoiced BellSouth for approximately $100 million. The average level of invoicing is approximately $9 million per month.

7. That, to the extent that BellSouth and other companies have the same pertinent language in their interconnection agreements, US LEC and other CLPs can exploit such agreements to generate massive amounts of reciprocal compensation, were such an interpretation to be validated.

It is to be expected that some facts, viewed in isolation, may be construed to be innocent enough, even praiseworthy. Of course, telecommunications companies enter into commission agreements all the time. Of course, telecommunications companies seek to make a profit, and one of their sources of revenue may be reciprocal compensation. Of course, it is a good thing that customer end-users should have access to advanced telecommunications services. All of these things are true. But, when the facts of this case are viewed in their totality, it is apparent that what we have here is not an example of the invisible hand in search of economic efficiency but rather the attempted exploitation of a perceived loophole to generate massive transfer payments from one entity and its shareholders to another entity and its shareholders. It is the Commission's responsibility to protect the public interest as a whole, not to condone the individual interest seeking profit at the expense of others, as is so manifestly the case here.

The Commission further observes that validating this network arrangement for the purposes of reciprocal compensation would be ultimately destructive to competition and represents a severe misallocation of resources. Competition in telecommunications is in the public interest because competition promotes the efficient allocation of scarce resources and tends to drive prices to their marginal levels--direct benefits for consumers. The destructiveness arises not only from the draining of resources from existing ILECs but from the incentive to prospective recipients of reciprocal compensation to construct artificial and inefficient networks resulting ultimately in endangerment to the public switched network.[12] In other words, the ultimate effect of validating the practice here would be to discourage the sort of innovation which could be of real benefit to the society at large as well as individual customers.

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[12] It should be noted that Metacomm's network is not designed uniquely for the BellSouth system; it can be replicated on the system of any LEC whose interconnection agreements provide for the payment of reciprocal compensation at a uniform per-minute rate. It is not designed solely for use with US LEC as the terminating carrier; on the contrary, any CLP or LEC can set up a similar system of routers and high-volume lines designed to generate the largest possible number of calls terminating on its own system. The Metacomm network can be greatly expanded -- indeed, there is no technological reason why it could not be expanded many times over, so as to generate even more prodigious compensation claims. Thus, the profits that can be realized from reciprocal compensation will vastly exceed those that a carrier can earn by providing a variety of useful services. The successful competitor would not be the one providing the best overall service but rather the one that could most rapidly link together the largest chains of routers and high-volume lines in order to realize reciprocal compensation. The threat to ILECs, especially the smaller ones, would be real. Consider that US LEC backed away from Concord Telephone Company because "[a] DS3 would break their bank."

The Commission finds it curious indeed that US LEC and Metacomm have been at pains to assure the Commission that the effects of their undertakings are limited in time and scope to existing agreements and that future agreements will surely be changed to prevent them from doing what they are doing now. This amounts to an implicit admission that what they are doing now is destructive and in the long run insupportable--if it were not, what would be the harm in allowing this network and others similarly constructed to continue to produce reciprocal compensation into the indefinite future? In any event, the Commission finds US LEC's and Metacomm's representations of no future harm to be less than completely reassuring.

Although the potential risks associated with the Metacomm network are extremely serious, they are not counterbalanced by significant public benefits. The Metacomm customers who use the network are relatively few in number. Most of them have been provided much greater capacity than they are able to use. The Internet access, software access, and other services provided to Metacomm's customers could just as easily be made available through dedicated lines. Witness MacIntosh testified that if Metacomm no longer had access to reciprocal compensation revenues, it could "drop a switch," i.e., disconnect itself from BellSouth's system, and continue providing the very same services to its customers. (Indeed, if Metacomm were to use dedicated lines for its services, this would eliminate the risk that a heavy volume of traffic on the US LEC network might tie up BellSouth's switches and block or delay telephone service to the general public. So far this risk has not materialized, but it could materialize if the US LEC network is expanded, or if other carriers set up similar networks.) This acknowledgment by witness MacIntosh clearly demonstrates that from a practical economic standpoint, there is nothing new and improved that Metacomm is bringing to the marketplace. If its network were a "better mousetrap," offering competitive advantages to its customers, Metacomm should have no problem offering the same service without linking itself to BellSouth's switches. But in fact, if it were not for the lure of reciprocal compensation, the network would never have been installed in this manner; and witness MacIntosh testified that if the Commission ultimately denies US LEC's claim for reciprocal compensation in this case, he will recommend that Metacomm cease operation. In the last analysis, none of the witnesses for Metacomm or US LEC were ever able to show that as a result of tapping into the public switched telephone network and generating a claim for reciprocal compensation, Metacomm and US LEC were able to provide any useful service to Metacomm's customers that they could not otherwise have provided.

The courts have often held that the heart of a contract is the intention of the parties, and the parties' intention can best be determined by examining the purpose of the agreement, the language used, and the surrounding circumstances. E.g., Beavers v. LeSeur, 188 Ga. 393, 3 S.E. 2d 667 (1939); Brigadier Industries Corp. v. Pippin, 146 Ga. App. 705, 247 S.E. 2d 170 (1978); Whitney v. Hagan, 65 Ga. App. 849, 16 S.E. 2d 779 (1941); Adder v. Holman & Moody, Inc., 288 N.C. 484, 219 S.E.2d 190 (1975); McDonald v. Medford, 111 N.C. App. 643, 433 S.E.2d 231 (1993). When a

customer served by one telephone carrier makes a local call to a customer served by another carrier, the originating carrier receives compensation through its customer's regular charges for local service, but the terminating carrier does not. Clearly the purpose of the reciprocal compensation provision in Sections IV.A. and IV.B. of the 1997 Interconnection Agreement, and of the corresponding provisions in the 1998 and 1999 Agreements, was to provide fair compensation to each party for its services in terminating calls originating on the other party's system. The parties did not intend to encourage, or provide incentives for, each other to reap enormous profits through reciprocal compensation by installing equipment that would artificially generate huge numbers of calls; at that time, they did not foresee the installation of this type of network. As discussed above, the widespread use of networks such as US LEC and Metacomm have developed has the potential to wreak havoc on the public switched telephone network, destroy established telephone companies that have served the public adequately for years, and stifle the development of beneficial innovations in telephone service. It is unreasonable to suggest that the parties intended to bring about, or create the risk of, such harmful consequences. If Sections IV.A. and IV.B. of the Interconnection Agreements are to be interpreted in accordance with their purpose and the parties' intent, the connections generated by US LEC's network of routers and high-volume lines must be held not to qualify for reciprocal compensation.

US LEC and Metacomm have suggested that the Commission should forbear from becoming what they call "network police." To do so, they urge, would hinder innovation. The Commission certainly agrees that innovation should be encouraged, but this is not real innovation. As explained above, the "innovation" that US LEC and Metacomm have created here is primarily an innovative way to transfer money from BellSouth's pocket to their own. The service they provide, which appears relatively unremarkable by modern standards, could have been provided without the BellSouth switch; and, although the customer end-users have certainly received a bargain, it has been at the expense of others. The Commission (and BellSouth for that matter) has no particular objection to US LEC and Metacomm constructing their network in any way they see fit so long as they do not expect someone else to pay for it.

A further consideration in our analysis relates to Section IV.C. where US LEC and BellSouth stated their understanding that they would be interconnecting with each other for comparable types of calls and the "usage would likely be reasonably balanced." While the Commission believes that this provision is not legally enforceable to the extent that, of itself, its violation would be a basis for withholding reciprocal compensation, the Commission believes that US LEC's and Metacomm's behavior in deliberately unbalancing traffic through such an artificial means can certainly be taken into consideration as an additional factor relating to the public interest. US LEC has attempted to defend its behavior as a defensive reaction to what it viewed as an excessively high reciprocal

compensation rate which it felt BellSouth had imposed upon it.[13] While it can certainly be conceded that BellSouth hoped and perhaps even expected to profit from this rate, it is also the case that BellSouth hoped to do this from the natural flow of traffic. By contrast, US LEC and Metacomm sought to create and did in fact create a massive imbalance of traffic in a manner inconsistent with this understanding. The Commission would be remiss if it did not consider this as bearing on the public interest. Such practices should not be encouraged.

Finally, US LEC has made much of the "sanctity of contracts." This assumes that the contract at issue is straightforward and unambiguous to begin with — something which is decidedly not the case in this docket. In the instant case, the more "sacred" principle is not to give the contract an unreasonable construction which plainly conflicts with the public interest, properly understood.

In conclusion, the Commission believes that it is not sound public policy to interpret the contract to allow US LEC to be compensated for reciprocal compensation generated on a network specifically designed to exploit the terms of the parties' Interconnection Agreements. Therefore, the Commission concludes that public policy requires that US LEC not be compensated for the minutes of use at issue in this docket.

CONCLUSION NO. 3

The physical configuration of the Metacomm/MCNC network is that of an effectively dedicated network and is ineligible for reciprocal compensation.

POSITIONS OF PARTIES

BELLSOUTH: BellSouth argued that the Metacomm/MCNC traffic is the product of a closed, dedicated network configuration that does not allow the termination of calls to ubiquitous locations within the local exchange and that there is no dispute that reciprocal compensation applies only to calls that are switched in nature, as opposed to dedicated.

Specifically, BellSouth pointed out that the network is configured to have Metacomm routers in continuous connection ("nailed up") with other Metacomm routers. Connections

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[13] US LEC has actually gone further and portrayed itself in positive terms as conferring public benefits by creating pressure to correct price anomalies — in this case, the rate for reciprocal compensation. US LEC's argument is rather like that of the thief who argues that he is conferring a public benefit by encouraging the creation of better locks. The fact is that the downward pressure on reciprocal compensation rates has arisen quite independently of US LEC's actions. In any event, any tangential benefit US LEC may have conferred by highlighting the issue of reciprocal compensation rates is more than canceled out by negative public interest implications of what it has done.

go to points that the end-user customer cannot control. Metacomm and US LEC inserted the BellSouth switches into the configuration solely to attempt to generate reciprocal compensation. The relevant question, however, is whether, through these switched facilities, it has provided its customers with the ability to terminate calls ubiquitously. The answer, according to BellSouth, to this question is "no."

Metacomm has admitted that, at least from the customer's view point, the network is a dedicated service. Metacomm CEO, Andy MacIntosh, testified that Metacomm's customers "would describe it as a dedicated service" (Tr. Vol. 7, p. 167). Metacomm's former CEO, Tom Finn, testified similarly that "Metacomm's customers enjoy dedicated access" (Finn Dep 37). Metacomm, in its petition to intervene, stated that it was "developing a virtual private network" and in its reply in support of its petition, it has "developed a unique private wide area network...."

US LEC: US LEC argued that since BellSouth and US LEC switches were used in the network, the network was not dedicated. There is no precedent for characterizing a network with a switched component like this one as dedicated. Thus, the calls are switched and terminate to a number in the same exchange.

METACOMM: To characterize the Metacomm network as "quasi" or "effectively" dedicated is to invent a new regulatory category. BellSouth has not cited to any state commission or FCC decision concluding that a service was an "effectively" or "quasi" dedicated service. The calls placed on the Metacomm network do in fact use BellSouth and US LEC switches and the public switched telecommunications network (PSTN). The fact that a customer's perspective is dedicated does not transform physical connections and the underlying telecommunications service into a dedicated (i.e., nonswitched) service. Indeed, Metacomm could call anywhere in the local exchange and did in fact reprogram its routers to call new numbers from time to time. The important factor in the analysis is the service that the carrier provides, not the service the carrier's customer provides.

DISCUSSION

The network configuration at issue in this docket and the legal consequences that flow from it are very significant to this controversy. While the network configuration can be described more or less straight forwardly, a description of the legal consequences flowing from that configuration is perforce more convoluted. For the reasons set out below, the Commission concludes that the network at issue is an effectively dedicated network and is not entitled to reciprocal compensation.

BellSouth contends that the network configuration is essentially that of a dedicated network and the traffic on it is, therefore, not entitled to reciprocal compensation. BellSouth points especially to the inability of end-user customers of Metacomm to have

ubiquitous access to numbers other than those prescribed by Metacomm. BellSouth also noted that the Metacomm routers are in continuous connection -- in BellSouth's phrase, "nailed up" virtually at all times (23 hours, 59 minutes a day, every day, taken down for one minute per day only for billing purposes). Metacomm and US LEC argued that the network is not dedicated because it includes the BellSouth switches. They charged that BellSouth is trying to make up a new regulatory category of "quasi-dedicated" networks. While admitting that it may appear dedicated from an end-user customer's perspective, Metacomm argued that this is irrelevant because the important thing is the network's objective structure -- which includes a BellSouth switch. Metacomm added that, while end-user customers may not be able to dial other numbers than Metacomm prescribes, Metacomm can and has reprogrammed its routers to call new numbers from time to time.

None of the parties disputed that reciprocal compensation is not due from a dedicated network. Metacomm and US LEC simply denied that it is a dedicated network.

This case appears to be one of first impression. Such cases frequently require the extension of old concepts to new situations by the process of analogy and functional comparison. (This is also, in a broad sense, how the common law operates.) So it is with the definition of "dedicated" in the context of telecommunications. It is of no particular significance -- given the fast-moving nature of telecommunications at the present time -- that there has been no specific regulatory category into which this network configuration neatly falls.

Before arriving at a legal conclusion as to the nature of the network here, the Commission believes that the important thing is to examine how the network actually works rather than focusing exclusively on the ownership interests in its constituent parts. Certainly, it must be conceded that Metacomm inserted a BellSouth switch into the network configuration; but the pertinent question in the Commission's view is whether the Metacomm network amounts to an effectively dedicated network. We should not elevate form over substance.

Accordingly, the first issue to examine is: What are the essential characteristics of a dedicated network as the term is commonly understood? Telecommunications dictionaries provide a clue as to the industry understanding. A dedicated network is one which functions to provide constant, always-on transmission capability from one discrete point to another discrete point.

Thus, Newton's Telecom Dictionary (11th ed., 1996) defines a "dedicated channel or circuit" as "[a] channel leased from a common carrier by an end user used exclusively by that end user. The channel is available for use 24 hours a day, seven days a week, 52 weeks a year, assuming it works that efficiently." Similarly, Newton's defines a "dedicated line" as "[a]nother name for a private leased line or dedicated channel. A dedicated line provides the ability to have a constant transmission path from point A to

point B...It may be part of a network with the ability for many to dial into it." The McGraw-Hill Illustrated Telecom Dictionary (McGraw-Hill, 1998) sets out a similar definition for a "dedicated circuit." It is defined as follows: "Also called a private line. A private line is a pair of wires..that runs from your location to a location that you want to be connected to with a dedicated high-speed data connection. Once a private line is installed, it is there all day, every day...."[14]

From these definitions, it is clear that a dedicated network is one that provides constant, always-on transmission and goes from one specific point to another. As it happens, this is an accurate description of how the Metacomm network works. The network is always on and goes from one point (a Metacomm router) to another (a Metacomm router). The end-user customers have no choice as to what these points are. Thus, BellSouth's emphasis that the end users had no choice on the numbers they could call, coupled with the network's always-on nature, was well-placed.

If this is the case, why is the BellSouth switch even in the configuration? Metacomm witness MacIntosh answered that "[t]he driving reason for this configuration is that it results in the generation of reciprocal compensation when calls are placed over the network." He further asserted that there are "collateral benefits such as access to BellSouth's ubiquitous switched network."[15] (Tr. Vol. 7, p. 129) Witness MacIntosh conceded that Metacomm could "drop a switch" – i.e., not use BellSouth facilities – and provide the same connectivity and service to its customers. (Tr. Vol. 7, p. 230) The Commission does not believe that the mere presence of a BellSouth switch converts a network that otherwise has the essential characteristics of a dedicated one where the "driving reason" for its insertion is to generate reciprocal compensation.

Metacomm does in fact concede that from the end-user customer's point of view, its network appears as a dedicated network (Tr. Vol. 7, pp. 166-167), but it denies the relevance of this fact. The Commission believes, on the contrary, that this fact is highly relevant in evaluating whether the network is on balance an effectively dedicated one. This is especially true in light of Metacomm's contention that this configuration conferred additional benefits such as access to BellSouth's "ubiquitous switched network." There was no substantial "ubiquitous switched network" benefit to the end-user customers because they could not call anyone else on the network aside from Metacomm.[16]

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[14] Note also Metacomm witness MacIntosh stating, "there is a longstanding usage in the telecommunications industry with reference to the term 'dedicated' and that typically means purchasing facilities that one links from one point to another point...[F]rom our customer's point of view they see a service that is always on..." (Tr. Vol. 7, p. 165; see also Tr. Vol. 7, p. 166-167)

[15] Accord Tr. Vol. 7, p. 141. "[T]he configuration allowed Metacomm to share in the reciprocal compensation proceeds that the network generated." Witness MacIntosh also cited overcoming the "local access bottleneck" and greater bandwidth.

[16] Metacomm argues that it could change the numbers and in fact has. However, numbers can be changed on a "classic" dedicated line configuration if one takes the trouble to reprogram the switch. In neither case can anyone freely and casually call any number other than those which are programmed.

Indeed, the inability of Metacomm end-user customers to call outside numbers is highly significant. A network which is "nailed up" and in continuous operation from one point to another is by definition a dedicated network. By necessity, it excludes choice by the end-user customer of the numbers that can be called.

Finally, as noted above, none of the parties disputed that reciprocal compensation is not due from a dedicated network. Metacomm and US LEC simply deny that it is a dedicated network, and their main rationale for this is the presence of a BellSouth switch. However, as analyzed by the Commission, the presence of the BellSouth switch does not change the essential nature of the Metacomm network as a dedicated network.

There are additional reasons why reciprocal compensation should not be paid for traffic generated over a dedicated network. First, dedicated networks are traditionally provided over private lines, and private lines are flat-rated and are thus insensitive to the type or quantity of traffic called. Economically, this makes a great deal of sense. The private line is always on and ready for use from one point to another. For any significant quantity of such traffic, a switched line charged on a usage basis would be far too expensive to sustain and would be economically impracticable. Accordingly, in such situations, the private line represents the most economically efficient way by which such traffic is transported.

Of course, what Metacomm and US LEC have done in this case is to stand matters on their head and to construct a network whereby they contend that BellSouth owes them far more money than the other way around through the device of inserting the BellSouth switch. This leads to the second reason for finding that such a network does not generate reciprocal compensation: it would be contrary to the public interest to do so. The public interest issues are discussed in more detail elsewhere, but the cardinal point here is that the Commission cannot on the one hand discharge its responsibility to protect the public interest and on the other hand give sanction to a network it has found to be effectively dedicated, where the "driving force" for the insertion of the BellSouth switch was to generate vast quantities of reciprocal compensation for US LEC and Metacomm and their shareholders. Allowing reciprocal compensation in such circumstances promotes neither economic efficiency nor true competition. Rather, it would institute an opportunity to "make a killing" through the exploitation of a perceived loophole. The Commission's responsibility is to promote the common good, not simply the opportunity of one company to profit at the expense of others — and, ultimately, of the public at large.

The mischief does not necessarily end with US LEC and Metacomm. Although US LEC and Metacomm took pains to assure the Commission that the danger was strictly limited in time frame, BellSouth disagreed, and it is impossible to know for sure. What is known is that the initial Interconnection Agreement here is a rather common, first-generation interconnection agreement whose life was in the instant case effectively extended to December 31, 1999. Like provisions in other Agreements may continue to

exist through the agency of pick-and-choose into an indeterminate future both for BellSouth and other LECs. To countenance this practice by US LEC and Metacomm would be to declare open season on the LECs who have such contracts. Some companies, like Concord Telephone Company, may be too small to provide much sustenance to US LEC or its imitators; but larger companies could provide for a more extended meal.[17] The Commission believes that it is in the public interest that this practice be stopped from spreading. Accordingly, the Commission concludes that the physical configuration of the Metacomm/MCNC network renders the traffic ineligible for reciprocal compensation.

CONCLUSION NO. 4

There is no basis upon which to conclude that some minutes of use by Metacomm's customers are compensable.

POSITIONS OF PARTIES

BELLSOUTH: There is no basis upon which to rule that reciprocal compensation is due for some minutes of use by Metacomm's customers. Further, there is no way to estimate actual customer minutes of use in a reasonably accurate way which would not be arbitrary and capricious.

US LEC: It is not possible to estimate or approximate the times in which data was either being transmitted or received by Metacomm's customers. Actual transmission and reception of data by each customer varies by individual customer needs and personal habits. No evidence was introduced during the hearing to estimate times in which data was either being transmitted or received by Metacomm's customers.

METACOMM: The quality or quantity of the underlying data transmissions associated with particular minutes of use is not relevant to BellSouth's payment obligation under the terms of the Interconnection Agreements.

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[17] The essentially predatory nature of US LEC's network plan is nowhere clearer than in the case of Concord Telephone Company. US LEC recognized that originating Metacomm traffic through the switch of a smaller ILEC could cause the ILEC serious financial harm. When Metacomm inquired about a potential customer served by Concord Telephone Company, with whom US LEC has an Interconnection Agreement, US LEC instructed: "Back away from Concord for the moment. A DS3 would break their bank." (Ex WKM-80; see also Finn Dep. Ex 54). At least in this instance, US LEC was a discerning predator when it came to its choice of prey.

DISCUSSION

The parties were specifically requested by the Commission to address whether there is a basis upon which some minutes of use by Metacomm customers might be compensable. The parties were unanimous that there was not.

In its response, BellSouth stated the configuration deployed by Metacomm to generate reciprocal compensation is the same when a customer accesses the network as when Metacomm is simply using routers located adjacent to one another to establish connections for the purpose of generating reciprocal compensation. Metacomm did not measure actual customer minutes of use.

BellSouth contended that even if the Commission concluded that there is some basis upon which minutes of actual usage by Metacomm's end-user customers might be compensable, there is no competent, material, and substantial evidence in the record upon which to estimate actual customer minutes of use in a reasonably accurate way. First, there is record evidence that only six customers - MACS, Meineke, Shelby City Schools, EDS, Aerial Images, and Alexander Children's Center - used the network. The evidence is that purported Metacomm customer Charlie Horse Farm never used the routers Metacomm placed at its facilities and that Meineke used them in a limited way for only a short period. Other than these six customers, there is no basis in the record to conclude that any other Metacomm customer used the network to any significant degree. To reach such a conclusion would be purely speculative.

BellSouth further contended that for the six customers who appear to have used Metacomm's network, there is no competent, material, and substantial evidence upon which to estimate their usage. Metacomm supplied each of them, on a take it or leave it basis, with capacity which exceeded their needs. Thus, even if a customer estimated that it used the Metacomm network for 50% of a school day (as opposed to the 24 hours a day that the routers on their premises were connected to Metacomm's terminating routers), there is no way to know whether the customer's usage would have been supported by a fraction of the capacity installed by Metacomm. The fact that no customer said that it would pay for the capacity provided by Metacomm free of charge, and at least MACS and EDS testified that they would use far less capacity to meet their needs if they had to pay for it -- is strong evidence that actual usage (number of circuits x minutes) would have been far less. Thus, there is no defensible way to estimate actual usage for those few customers who did use the network. Any estimate of actual Metacomm customer minutes of use would be arbitrary and capricious.

US LEC in its response, stated that no difference exists between the usage that Metacomm's customers make and the duration of the Metacomm network calls that US LEC terminated - durations that both BellSouth and US LEC have recorded. The service that Metacomm extends to its customers is an *always on* service. As a

consequence, the usage of Metacomm's customers is effectively 24 hours a day, seven days a week. Their usage is no different from the hypothetical computer users whom BellSouth witness Halprin agreed legitimately would create a reciprocal compensation obligation if they maintained an open phone line between them for a month but actually passed messages for only a few minutes each day.

US LEC stated that BellSouth does not dispute that no carrier must or can measure the duration of data transmission during a call, as opposed to the duration of the call itself. Periods of data transmission by Metacomm's customers have not been measured by BellSouth, Metacomm, or US LEC because that type of measurement is not required by law, industry practice, or the terms of the Interconnection Agreements, and not capable of being measured under today's switching technology. Indeed, the only means of measuring those transmissions is by invasive line testing and monitoring of each call which cannot be conducted on a wide scale, and likely would be an unlawful interception if done. The minutes that US LEC terminated, and that US LEC and BellSouth were required under the Interconnection Agreements to record, were the minutes of Metacomm's usage, not that of Metacomm's customer's data transmission.

US LEC further contended that imposition of a voice or data transmission measurement in lieu of actual call duration would create a standard for reciprocal compensation that is completely different than the parties provided in the Interconnection Agreements. Further, it would impose a standard on US LEC that is different than BellSouth has applied in the context of its reciprocal compensation billings to US LEC -- which have been based strictly on the duration of the call, with no "discounts" for periods of silence. And finally, since no other carrier in the industry can or does measure when voice or data is crossing a phone line, this "new standard" would impose extraordinary burdens on US LEC which no other carrier in the industry must or can bear.

US LEC believed that just as BellSouth charged Metacomm for the facilities and services it provided to Metacomm, so too is US LEC entitled to compensation for terminating the Metacomm network traffic that was produced as a result and that was passed by BellSouth to US LEC. Neither US LEC's state-of-the-art Lucent switch nor any of BellSouth's switches has the ability to distinguish between different types of traffic (whether voice, data, or connections with silent periods) being sent for termination.

Metacomm contended in its response that all minutes of use associated with the Metacomm network are entitled to compensation under the Interconnection Agreements. The Agreements clearly require compensation to be paid for all local "telephone calls"; the calls by the Metacomm network are unquestionably "telephone calls" within the meaning of the Interconnection Agreements; and the Agreements contain no exclusion for any particular type of traffic, whether it be "Enhanced Service Provider," "Information service Provider," or "Internet Service Provider" traffic.

Metacomm stated that read in the context of the definition of "minutes of use" (mou) provided by the Interconnection Agreements, all of the minutes at issue are "customer" minutes of use as they were generated in connection with Metacomm's always-on product offering. There is no need to estimate "customer" minutes of use, because these are the actual MOU at issue.

Metacomm contended that it is simply not possible to arrive at approximations of the times in which data was either being transmitted or received by Metacomm's customers. In the end, the actual transmission and reception of data by each customer would vary depending on the individual customer's needs, personal habits (i.e., some customers use their computer more than others), and applications accessed over the network. It is possible to generally categorize Metacomm's customers by schools and businesses, but the precise minutes of use associated with each customer's transmission or reception of data would vary among individual schools and businesses.

Metacomm stated that BellSouth's arguments that the Commission should exclude compensation for testing and development traffic prior to May 1998 on the grounds that traffic for the purpose of testing is not appropriate for compensation should be rejected. The Agreements simply do not contain an exclusion for any particular category of traffic, including traffic associated with testing and development.

The Commission cannot consider these connections "telephone calls" in the traditional sense, particularly for the periods of time when the connections were open and there was no transmission of any data or actual content, or even potential for such transmission. It is doubtful that these sorts of connections, where, for the most part, only "network holding signals" would actually traverse the network, were contemplated by the parties when they executed the Interconnection Agreements. Otherwise, the result would be that BellSouth would have to pay reciprocal compensation for empty connections between two routers, established in order to generate reciprocal compensation. Furthermore, even when actual Metacomm customers use the network and actual data content, as opposed to network holding signals, traverses the network, the parties have stated that the minutes during which this data content has flowed over the network cannot be measured. Not only did the parties rule out that the minutes are measurable, no party offered any basis for estimating or approximating some minutes as a basis for compensation. Accordingly, the Commission concludes that there is no basis for measurement of some of the minutes for compensation purposes. More importantly, however, there is no reason for the particular physical configuration of this network except for the generation of reciprocal compensation and traffic generated on such a network does not appear to have been contemplated by the parties when they executed the Interconnection Agreements. Finally, customer traffic on a dedicated network is not eligible for reciprocal compensation. All of these considerations support a determination by the Commission that it is not appropriate to require the payment of any reciprocal

compensation for traffic generated by the network in question in this case and upon this record.

CONCLUSION NO. 5

The doctrines of estoppel, waiver, and laches do not act to limit the relief requested by BellSouth.

POSITIONS OF PARTIES

BELLSOUTH: BellSouth argued that none of the affirmative defenses raised by US LEC (estoppel, waiver, and laches) bar the relief requested by BellSouth, because US LEC and Metacomm have unclean hands and because the equitable defenses are not applicable under the facts of this case.

US LEC: US LEC argued that BellSouth's conduct precludes the equitable remedy of contract reformation under the doctrines of equitable estoppel and quasi-estoppel.

METACOMM: Metacomm contended that BellSouth's representation and conduct bar it from now claiming that Metacomm's network is a sham or that it otherwise is violative of public policy. The equitable defenses preclude such action by BellSouth.

DISCUSSION

BellSouth stated that US LEC and Metacomm do not dispute that they never told BellSouth of their arrangement regarding reciprocal compensation or of the intended uses of Metacomm's or MCNC's networks. BellSouth stated that US LEC and Metacomm also claim that after BellSouth learned of the arrangement, it acquiesced so that it could profit by selling facilities and services to Metacomm. BellSouth stated that it would have had to decide to accept $12 million for facilities so that it could be billed approximately $100 million in reciprocal compensation.

In BellSouth's view, the equitable defenses asserted by US LEC are inapplicable because US LEC and Metacomm have unclean hands. They failed to tell BellSouth that the majority of minutes of use for which BellSouth initially refused to pay reciprocal compensation, based on the mistaken belief that they were being terminated to ISP customers of US LEC, were in fact not due to ISP traffic, but rather "traffic" consisting of empty connections by Metacomm routers being nailed up through BellSouth and US LEC's switches. US LEC and Metacomm knew that BellSouth would object to paying reciprocal compensation for such traffic.

BellSouth further argued that the equitable defenses do not apply in any event because the facts do not support them. US LEC and Metacomm based their estoppel,

waiver, and laches claims on facts allegedly demonstrating that BellSouth knew or should have known what US LEC and Metacomm were doing. BellSouth stated that its knowledge was incomplete and that Metacomm and US LEC perpetuated the misunderstanding. BellSouth did not know that the networks would be "always on" and connected only to US LEC. BellSouth acknowledged that it had to add trunks between BellSouth's switching offices and US LEC's, but stated that these additions were not made by BellSouth Business Systems, the retail entity that met Metacomm's needs, but by employees in the networking department of BellSouth who were responsible for meeting the needs of CLPs and IXCs. Moreover, BellSouth Business Systems employees had a duty of confidentiality with regard to information about Metacomm.

Waiver. BellSouth argued that waiver requires an intentional relinquishment of a known right. If US LEC's version of the facts is true, waiver would still not apply, because there is no right or benefit that BellSouth could have relinquished. Further, if there was such a right or benefit, there is no evidence of an intentional election by BellSouth to give up its right to dispute the propriety of reciprocal compensation for the "traffic" at issue.

Laches. BellSouth stated that laches operates to bar a claim where a party waits too long to assert it to the material detriment of its adversary. For the defense to succeed, US LEC must show that BellSouth knew about the sham traffic and delayed in asserting its claim to the material prejudice of US LEC. BellSouth stated that it started investigating Metacomm's network as soon as it suspected any wrongdoing. Once it gathered some basic facts, it put US LEC on notice of its position not to pay for what it suspected was sham traffic and invited negotiations with US LEC, which US LEC refused. BellSouth had no choice but to file its complaint, which it did less than a year after Metacomm began constructing its network and within months after blockages caused by its traffic first raised BellSouth's suspicions. There was no change in the relations of the parties which would make it unjust to permit the prosecution of the claim, so laches does not apply.

Equitable Estoppel. BellSouth noted that, under the law, the essential elements of equitable estoppel are: (1) conduct on the part of the party sought to be estopped which amounts to a false representation or concealment of material facts; (2) the intention that such conduct will be acted on by the other party; and (3) knowledge, actual or constructive, of the real facts. The party asserting the defense must have: (1) a lack of knowledge and the means of knowledge as to the real facts in question; and (2) relied upon the conduct of the part sought to be estopped to his prejudice. BellSouth argued that these elements are not present. There are no allegations or evidence that US LEC lacked knowledge of the network it was configuring and the reciprocal compensation issues the network would spawn. There is no evidence of any conduct on BellSouth's part amounting to a false representation or concealment of material facts. BellSouth did not know all of the true facts until discovery in this action.

Quasi-Estoppel. BellSouth contended that quasi-estoppel likewise does not apply. It is grounded upon a party's acquiescence or acceptance of payment or benefits, by virtue of which that party is thereafter prevented from maintaining a position inconsistent with those acts. BellSouth acknowledged that it accepted the benefits of its Interconnection Agreements with US LEC, but stated that it is not now attempting to avoid certain terms of the agreements. Instead, BellSouth contested US LEC's interpretation of the reciprocal compensation provision of the Agreements. Further, BellSouth lacked knowledge of the capabilities and intended use of the network at issue at the time it began "accepting benefits" under the Interconnection Agreements and pursuant to the sale of the network facilities and services. BellSouth initiated this action as soon as it learned of and investigated the situation. Thus, BellSouth argued that quasi-estoppel does not apply.

US LEC argued that BellSouth's conduct precludes the equitable remedy of contract reformation under the doctrines of equitable estoppel and quasi-estoppel.

Equitable Estoppel. Equitable estoppel arises when: (1) an individual by his acts, representations, admissions, or silence when he has a duty to speak; (2) intentionally or through culpable negligence; (3) induces another to believe that certain facts exist; and (4) such other person rightfully relies and acts upon that belief to his detriment. In US LEC's view, BellSouth is estopped by its participation in the development of the Metacomm network from claiming that Metacomm traffic was a sham or is otherwise not compensable. No later than January 1998, BellSouth kept silent about its objections to paying reciprocal compensation for Metacomm and MCNC traffic when it had a contractual and equitable duty to speak. BellSouth induced Metacomm to order more services and facilities. BellSouth led US LEC to believe it could continue to accept BellSouth's local traffic for termination and be paid for providing that service pursuant to the Interconnection Agreements. Metacomm and US LEC relied on BellSouth's failure to object and its marketing to Metacomm to their detriment. US LEC advanced to Metacomm portions of the reciprocal compensation to be shared with Metacomm primarily so that Metacomm could pay BellSouth. Metacomm kept paying BellSouth and adding customers. US LEC also used its switch resources to terminate this traffic.

US LEC argued that the Interconnection Agreements and the law of equity obligated BellSouth to notify US LEC promptly of any billing dispute or lose its right to do so. US LEC stated that, not later that January 1998, BellSouth was aware of the operation and key elements of the Metacomm and MCNC networks. BellSouth knew the imbalance of reciprocal compensation generated by the Metacomm and MCNC networks. Thereafter, every DS3 and PRI on the Metacomm network was provisioned by BellSouth. Local calls were placed over these DS3s and PRIs to US LEC numbers, so BellSouth ordered and installed one-way trunks outbound from the BellSouth network to the US LEC network to allow calls traversing the Metacomm network to be completed. For every trunk BellSouth provisioned to MCNC or Metacomm, it provisioned a corresponding trunk into a US LEC switch to transmit the traffic. The trunks were only outbound from BellSouth to US LEC,

so there was no mystery that calls being made by MCNC and Metacomm were being terminated to US LEC switches and that there was no call flow from US LEC to BellSouth on these facilities. More than one BellSouth employee knew of the volume and direction of the traffic, including BellSouth's traffic planner for Raleigh and BellSouth's project manager for Metacomm. Metacomm's connectivity to a CLEC was confirmed to over 30 people, employed by either BellSouth Telecommunications or BellSouth Business Systems.

US LEC further argued that BellSouth knew and understood the reciprocal compensation liability arising from the Metacomm and MCNC networks. US LEC asserted that BellSouth employees discussed the reciprocal compensation resulting from the MCNC and Metacomm terminating traffic directed to the US LEC network. Nevertheless, BellSouth continued to sell facilities and services to Metacomm without objection and to accept the payments Metacomm's growth provided it. BellSouth also knew about US LEC's arrangement to share reciprocal compensation with MCNC and Metacomm. BellSouth's North Carolina President and BellSouth's Assistant Vice President of Sales were told in January 1998 that MCNC had agreed to share reciprocal compensation with US LEC. BellSouth cannot argue that it did not have notice of a similar agreement between US LEC and Metacomm. It knew of the similarities in the design and configuration of the networks. US LEC stated that the fact that MCNC had a sharing arrangement with US LEC put BellSouth on notice in January 1998 of the existence of a similar agreement between US LEC and Metacomm. Further, as a competitor, US LEC was under no obligation to inform BellSouth of its decision to share reciprocal compensation.

US LEC asserted that BellSouth was also aware of how MCNC and Metacomm intended to configure and market their networks. BellSouth learned from Metacomm in January 1998 and thereafter the configuration of the Metacomm network and how Metacomm intended to use its DS3s. BellSouth knew about every Metacomm customer as each was added, because BellSouth was given their identities by Metacomm so BellSouth could install the DS3s and PRIs. BellSouth never refused to provide service and actively sought Metacomm's business before and after this proceeding was filed. From January 1998 through July 15, 1998, BellSouth never complained to Metacomm or US LEC. On July 15, 1998, BellSouth stated that it would not pay reciprocal compensation for circuits that remained open between a BellSouth customer and US LEC's network but over which no information is transmitted, or for other arrangements entered into solely for the purpose of generating reciprocal compensation.

US LEC argued that the Commission must conclude that Metacomm and US LEC reasonably relied, to their detriment, on BellSouth's silence and its expressions of a desire to do business with Metacomm. US LEC and Metacomm could have avoided the substantial financial and manpower commitment they made to the Metacomm network after

January 1998 if BellSouth had made any of its objections. US LEC could have sought a ruling on enforcement of the contract in advance.

Quasi-Estoppel. US LEC stated that BellSouth is also barred by the related doctrine of "quasi-estoppel" from seeking a rewrite of the Interconnection Agreements. BellSouth's efforts to woo Metacomm in 1998 and well into 1999 have two effects in this proceeding. First, there is a legal obligation on BellSouth which results from its acceptance of the benefits of the Metacomm contract. BellSouth may not seek out and accept all of the benefits of the contract, accept Metacomm's money, and sell Metacomm more services, only to then say that those services were used to perpetrate a sham with BellSouth as the victim in order to avoid the obligations it well understood would result from accepting those benefits.

Second, there are implications regarding the credibility of BellSouth's legal positions in this proceeding. The Commission must determine whether BellSouth's claimed defenses are bona fide arguments with legal merit or artificial stumbling blocks simply to delay the payment obligation. US LEC stated that the defenses are not bona fide. If BellSouth really believed that Metacomm was a carrier or a reseller, BellSouth would have billed Metacomm as a carrier or reseller, but it did not. If BellSouth believed it was the victim of a sham, it would have come to the Commission or a court to be relieved of the obligation of installing those facilities. If BellSouth believed that Metacomm traffic was interfering with its network, it would have produced evidence of that fact and would have asked this Commission for relief to prevent that harm.

Similar to US LEC, Metacomm argued that BellSouth knew from its inception that Metacomm's network was originating a large number of long duration calls over BellSouth's network and terminating those calls on US LEC's network. BellSouth encouraged Metacomm's growth and transformed Metacomm into one of BellSouth's largest and most valued customers. In Metacomm's view, BellSouth intended that Metacomm rely upon its representations of "partnership" building, and Metacomm did so to its detriment. BellSouth continued to accept monthly payments of approximately $1 million from Metacomm and encouraged Metacomm to order additional facilities. Metacomm made contractual commitments with customers and vendors and deployed its limited resources toward building its business. Metacomm committed itself to its business plan of constructing a network capable of providing wide bandwidth services to schools and businesses in North Carolina. Now BellSouth claims that Metacomm's network is a sham, is inefficient, and violates public policy. Metacomm argued that equity does not allow BellSouth to use such tactics.

The Commission concludes that the equitable doctrines of estoppel, waiver, and laches should not be applied to bar the relief sought by BellSouth. There is a great deal of conflicting testimony and evidence in the record regarding what BellSouth knew or did not know, what US LEC and Metacomm did or did not disclose to BellSouth, and the timing

of such disclosures and knowledge. There is so much conflicting evidence that it would be inappropriate to conclude that BellSouth had full knowledge of the US LEC plan and, therefore, it would be inappropriate to apply the equitable doctrines of estoppel, waiver, or laches.

Although it appears that employees in some BellSouth subsidiaries knew some pieces of the picture, BellSouth argued convincingly that its knowledge and understanding of the situation was incomplete. US LEC and Metacomm have not proven that BellSouth Business Systems and BellSouth employees pieced together the knowledge of various individuals for several months. Nevertheless, it appears that BellSouth alerted US LEC and brought its complaint to the Commission within a reasonable time of its developing suspicions that the "nailed up connections" were established for the purpose of generating reciprocal compensation. BellSouth noted that it filed its complaint less than a year after Metacomm began constructing its network and within months after BellSouth first began to suspect a problem. The facts certainly do not demonstrate that BellSouth intentionally elected to waive its right to dispute the propriety of reciprocal compensation for the traffic at issue, that BellSouth deliberately delayed in filing its complaint in order to harm US LEC and Metacomm, or that BellSouth in any other fashion relinquished its right to pursue its claim at the Commission.

CONCLUSION NO. 6

The Commission's decision in Docket No. P-55, Sub 1027 (ISP Order) does not control the determination in this case of whether BellSouth should be required to pay reciprocal compensation for Metacomm traffic under the Interconnection Agreements.

POSITIONS OF PARTIES

BELLSOUTH: According to BellSouth, the Commission's decision in Docket No. P-55, Sub 1027, does not require that Metacomm connections which originated in one local exchange and terminated to Metacomm equipment located within a different local exchange be deemed "local" under the Interconnection Agreements between BellSouth and US LEC.

US LEC: Because the ISP Order interprets the same BellSouth/US LEC Interconnection Agreement which is the subject of this complaint proceeding, the interpretation contained in the ISP Order is binding.

METACOMM: According to Metacomm, the arguments made by BellSouth in this case are premised on the same theory that the Commission rejected in its ISP Order. The Commission should decline BellSouth's arguments in favor of a reversal of the ISP Order.

DISCUSSION

On October 24, 1997, US LEC filed a Petition with the Commission in Docket No. P-55, Sub 1027, to enforce its Interconnection Agreement with BellSouth, which was approved by the Commission on January 29, 1997. US LEC contended that BellSouth had breached the contract by failing to pay reciprocal compensation for the transport and termination of local exchange traffic from BellSouth end users that was handed off by BellSouth to US LEC for termination to US LEC local exchange end users who are ISPs.

In the ISP Order which was issued on February 26, 1998, the Commission concluded that the ISP traffic under dispute was local and that US LEC was entitled to reciprocal compensation in accordance with the contract terms. The Commission noted that the Interconnection Agreement spoke of reciprocal compensation for local traffic and that there was no exception for local traffic to an end user who happened to be an ISP. For the purposes of reciprocal compensation, the Commission concluded that the call terminated when it was delivered to the called local exchange telephone number of the end-user ISP. The Commission further noted that BellSouth treats calls from its own end-user customers to ISPs it serves with telephone numbers in the same local calling area as local traffic; that BellSouth charges its own ISP customers local business line rates for local telephone exchange service; that when a BellSouth telephone exchange service customer places a call to an ISP within that caller's local calling area, BellSouth treats this as a local call pursuant to the terms of its local tariffs; and that BellSouth also treats the revenues associated with the local exchange traffic to its ISP customers as local for purposes of separations and ARMIS reporting. The Commission also stated that the FCC had not at that time squarely addressed this issue and that, while both sides presented extensive exegeses on the obscurities of FCC rulings bearing on ISPs, there was nothing dispositive in the FCC rulings at that time. The Commission stated that every state that had ruled on the matter through the date of that Order had ruled that such ISP traffic was local.

BellSouth appealed the Commission's ISP Order to the Federal District Court for the Western District of North Carolina. While the matter was pending before the Federal District Court, the FCC issued its Declaratory Ruling in CC Docket Nos. 96-98 and 99-68 on February 26, 1999, wherein it held that ISP-bound traffic is largely jurisdictionally interstate, but further held that it would decline "to interfere with state commission findings as to whether reciprocal compensation provisions of interconnections agreements apply to ISP-bound traffic, pending adoption of a rule establishing an appropriate interstate compensation mechanism." (Paragraph 21). The Federal District Court remanded the case to the Commission by Order dated May 24, 1999, for reconsideration in light of the FCC's Declaratory Ruling of February 26, 1999. The Commission appealed the case on jurisdictional grounds to the United States Court of Appeals for the Fourth Circuit where the matter is now pending.

The parties to this case take contrary positions on the issue of whether the ISP Order controls the determination of whether reciprocal compensation must be paid by BellSouth under the Interconnection Agreements. In the ISP Order, the Commission addressed the applicability of the reciprocal compensation provision in the specific context of typical dial-up Internet traffic; i.e., the situation where a customer of an ISP connects to the ISP by means of a local phone call using telephone exchange service. In that context, the Commission concluded that dial-up calls to the Internet constitute local traffic for purposes of payment of reciprocal compensation when the end-user customer places a local telephone call to his or her ISP delivered to the called telephone number in either the same exchange or a corresponding EAS exchange. The specific factual situation and question which was addressed by the Commission in the ISP Order related solely to dial-up calls placed to ISPs by end-user customers. It did not address the factual situation which has been presented in this complaint proceeding. That being the case, the ISP Order is certainly not controlling or dispositive as to the outcome of the instant dispute, although it can certainly be looked to for guidance where it may have some relevance. The Commission believes that US LEC and Metacomm cannot reasonably rely on the ISP Order to justify their position that BellSouth should be required to pay reciprocal compensation in this case. The factual situations are simply too different considering in particular the physical configuration of the US LEC/Metacomm network architecture. This case involves facts which are far different from those addressed by the Commission in the ISP Order dealing with typical dial-up Internet calls placed by an end-user customer where the customer actually dials a local telephone number and the call to the ISP is delivered in the customer's same local exchange or an EAS exchange serving the called telephone number.

IT IS, THEREFORE, ORDERED as follows:

1. That no reciprocal compensation is due for any minutes of use attributable to Metacomm or MCNC.

2. That US LEC shall, to the extent it has not done so previously, identify the number of minutes on each of its reciprocal compensation invoices to BellSouth which are attributable to Metacomm and MCNC.

3. That US LEC shall cease immediately from billing BellSouth reciprocal compensation for minutes of use attributable to Metacomm.

4. That US LEC shall refrain on a going-forward basis from billing BellSouth reciprocal compensation for traffic of the nature ruled noncompensable herein.

ISSUED BY ORDER OF THE COMMISSION.

This the 31st day of March, 2000.

NORTH CAROLINA UTILITIES COMMISSION

Geneva S. Thigpen

Geneva S. Thigpen, Chief Clerk

ms033100.01

Commissioner Judy Hunt dissents.
Commissioner William R. Pittman concurs.

The major relevant provisions of the three Interconnection Agreements are as follows:

- Third whereas clause, 1997 Agreement:

  WHEREAS, the parties wish to interconnect their facilities, purchase unbundled elements, and exchange traffic for the purposes of fulfilling their obligations pursuant to sections 251, 252 and 271 of the Telecommunications Act of 1996 and to replace any and all other prior agreements, both written and oral;

- Section I.C., 1997 Agreement:

  C. **Local Traffic** is defined as any telephone call that originates in one exchange and terminates in either the same exchange, or a corresponding Extended Area Service ("EAS") exchange. The terms Exchange, and EAS exchanges are defined and specified in Section A3. of BellSouth's General Subscriber Service Tariff. (Accord, Section I.D., 1998 Agreement and Section I.D., 1999 Agreement)

- Section IV.A., 1997 Agreement:

  IV. Local Interconnection

  A. The delivery of local traffic between the parties shall be reciprocal and compensation will be mutual according to the provisions of this Agreement. The parties agree that the exchange of traffic on BellSouth's EAS routes shall be considered as local traffic and compensation for the termination of such traffic shall be pursuant to the terms of this section. EAS routes are those exchanges within an exchange's Basic Local Calling Area, as defined in Section A3 of BellSouth's General Subscriber Services Tariff. (Accord, Section IV.B., 1998 Agreement and Section IV.A., 1999 Agreement)

- Section IV.B., 1997 Agreement:

  B. Each party will pay the other for terminating its local traffic on the other's network the local interconnection rates as set forth in Attachment B-1, by this reference incorporated herein. The charges for local interconnection are to [be] billed monthly and payable quarterly after appropriate adjustments pursuant to this Agreement are made. Late payment fees, not to exceed 1% per month after the due date may be assessed, if interconnection charges are not paid within thirty (30) days of the due date. (Accord, 1998 Agreement, Section IV. C. and 1999 Agreement, Section IV.B.)

- Section IV.C., 1997 Agreement:

C. US LEC and BellSouth enter into this Agreement with the understanding that the carriers would be interconnecting with each other for comparable types of calls and that usage would likely be reasonably balanced, *i.e.*, US LEC would be terminating to BellSouth approximately the same level of usage that BellSouth would be terminating to US LEC. If at any time during the term of this Agreement traffic is imbalanced to the degree that US LEC feels a cap on amounts owing under this Agreement is required, US LEC has the option to adopt the comparable billing provisions contained in any agreement that BellSouth negotiates or has entered into with another ALEC which contains cap provisions, after August 8, 1996 provided that US LEC adopt the billing provisions of such other agreement that are comparable to those contained in this Section IV. Each party will report to the other a Percentage Local Usage ("PLU") and the application of the PLU will determine the amount of local minutes to be billed to the other party. For purposes of developing the PLU, each party shall consider every local call, including non-intermediary calls, and every long distance call. Effective on the first of January, April, July and October of each year, the parties shall update their PLU.

DOCKET NO. P-561, SUB 10

COMMISSIONER JUDY HUNT, DISSENTING:

In this Order, the majority directs that "no reciprocal compensation is due for any minutes of use attributable to Metacomm or MCNC." In my view, at a minimum, the commission should consider requiring that BellSouth pay reciprocal compensation for certain minutes of use where it is clearly established as fact that "real" customers or users existed. The parties do not instruct the Commission on how to ascertain "real" minutes of use and all parties argue for "all or nothing" compensation. The majority, therefore, says actual customer minutes cannot be estimated. Nevertheless, the record shows that a number of real users or customers did exist and were benefiting from the service. Even without request from the parties, the Commission should have the fortitude to establish remedy for some minutes of use.

Further, in this case, BellSouth bears the burden of proof in its complaint that US LEC was improperly invoicing BellSouth for millions of dollars of reciprocal compensation. A contract existed that perhaps is vague and unclear, but if so, it is BellSouth's responsibility to prove that they (BellSouth) should be relieved of payment responsibility. Rather than "proving" this, Bell South attacks the "intent" of US LEC. US LEC (and every current and former employee) may not all be pure of heart, but BellSouth, in my view, does not meet the burden of proof by showing that the contract in wholly invalid.

This Order also quotes heavily from BellSouth testimony and briefs and fails to acknowledge perhaps counter-balancing comments in US LEC/Metacomm documents (see Executive Summary of Metacomm's post-hearing brief).

BellSouth's complaint also asks the Commission to find that the minutes of use do not qualify for reciprocal compensation as a matter of public policy. The question here is whether the majority decision will fuel or chill future, innovative, technological developments and promote meaningful competition. Failure to enforce this contract may have the effect of preventing new entrants in the high tech community from introducing innovations that require regulatory oversight. Future new entrants may be understandably concerned that regulations tend to protect the regulated.

Judy Hunt

Judy Hunt, Commissioner

COMMISSIONER WILLIAM R. PITTMAN, CONCURRING:

I concur wholeheartedly with the result reached by the majority on every issue in this case. I write separately, however, to highlight what I believe to be the fraudulent, unfair and deceptive, and perhaps even criminal conduct of US LEC and Metacomm.

Fraud can be defined in a number of ways, including "[a] false representation of a matter of fact, whether by word or by conduct, by false or misleading allegations, or by concealment of that which should have been disclosed, which deceives and is intended to deceive another so that he shall act upon it to his legal injury." Black's Law Dictionary 594 (5th ed. 1979). The evidence in this case suggests the existence of each of those elements in the conduct of US LEC and Metacomm.

North Carolina General Statute §75-1.1, which mirrors federal law, makes unlawful "unfair or deceptive acts or practices in or affecting commerce." N.C. Gen. Stat. §75-1.1 (1999), 15 U.S.C.A. §45(a)(1) (1997). "A practice is unfair when it offends established public policy as well as when [it] is immoral, unethical, oppressive, [or] unscrupulous...". Johnson v. Phoenix Mut. Life Ins. Co., 300 N.C. 247,263, 266 S.E. 2d 610,621 (1980). "An act...is deceptive...if it has the capacity or tendency to deceive." *Id* at 265, 266 S.E. 2d at 622. The evidence in this case suggests conduct by US LEC and Metacomm that was both unfair and deceptive.

The crime of obtaining property by false pretense is defined as a false representation of a subsisting fact or a future fulfillment or event which is calculated and intended to deceive, which does in fact deceive, and by which one obtains or attempts to obtain property from another. N.C. Gen. Stat. §14-100 (1999); State v. Cronin, 299 N.C. 229, 262 S.E. 2d 277 (1980). The evidence in this case suggests the existence of probable cause to believe a prima facie case of obtaining property by false pretense could lie against US LEC and Metacomm.

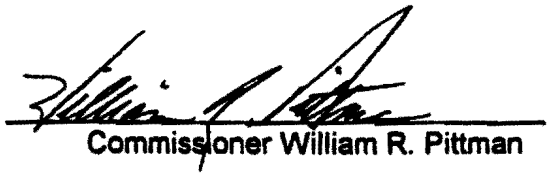
The evidence in this case suggests, in fact, that the US LEC/Metacomm alliance was part of a grand scheme by US LEC to squeeze enough money out of BellSouth to finance much of its operation. There is no other reason apparent from this evidence for the existence of Metacomm other than the generation of reciprocal compensation payments to US LEC. The evidence suggests that Metacomm and (because Metacomm is little more than a corporate alter ego of US LEC and its principals) US LEC initially had no plans for Metacomm to serve end users. Probably out of fear of discovery, Metacomm was later told to develop some "real" traffic for its sham network, and it made some attempts to do so. Putting a red dress on a hog does not change its essential nature, although US LEC/Metacomm's misrepresentations and other attempts to conceal their scheme from BellSouth worked for several months.

MCNC and some of Metacomm's "customers", lured by the promise of free high-technology equipment, free Internet access and capacity beyond belief, were duped into becoming accomplices in this scheme for a time. MCNC withdrew as soon as its management discovered the true character of this "network". Even some of Metacomm's investors had "strange feelings" about the way Metacomm did business. Indeed.

US LEC's pious breast beating about the sanctity of contracts would be laughable if it weren't so serious a matter. "Although the law will not generally inquire into men's acts and contracts to determine whether they are wise and prudent, yet it will not suffer them to be entrapped by fraudulent contrivances or cunning or deceitful management of those who purposely mislead them." 17A Am. Jur. 2d Contracts §238 (1991). Contracts against public policy will not be enforced. Gore v. Ball, 279 N.C. 192, 203 182 S.E. 2d 389 (1971).

Some will argue that the US LEC/Metacomm scheme was simply a clever and innovative mechanism resulting from the introduction of competition in public telecommunications. While clever, the scheme is not particularly innovative, deriving from a certain snake which convinced a certain woman that a certain fruit would be good for her. The US LEC/Metacomm attempt to build a facilities-based competing provider with hundreds of millions of reciprocal compensation dollars is certainly the result of competition in public telecommunications, but this remora-like approach was clearly not contemplated by the Congress or the North Carolina General Assembly in the passage of telecommunication competition legislation. Genuine, service-providing, value-adding business, something the US LEC/Metacomm enterprise clearly was not, was contemplated.

Not only is reciprocal compensation not due in this case, perhaps we should take a careful look at whether US LEC's certificate should continue to be valid in North Carolina. The kind of scheme perpetrated upon BellSouth is obviously not in the public interest. Perhaps we should decide whether allowing the perpetrator to continue to do business in this state is in the public interest.



Commissioner William R. Pittman

LOUISIANA PUBLIC SERVICE COMMISSION

ORDER NO. U-23839

KMC TELECOM, INC.
V.
BELLSOUTH TELECOMMUNICATIONS, INC.

Docket No. U-23839 - In Re: Petition of KMC Telecom, Inc. against BST to enforce reciprocal compensation provisions of the Parties' Interconnection Agreement.

(Decided at Open Session held October 13, 1999)

Nature of the Case

KMC Telecom, Inc. ("KMC") and BellSouth Telecommunications, Inc. ("BST") entered into an Interconnection Agreement (the "Agreement") on February 24, 1996 which was deemed approved by the Commission on June 20, 1997. That Agreement calls for the payment of reciprocal compensation for local calls[1] that originate on one company's network which are transported to and terminate on the other company's network. The reciprocal compensation rate is set out in the Agreement and is not at issue in this matter. What is at issue, however, is whether or not reciprocal compensation is owed for a particular type of call. KMC asserts that the parties must pay each other reciprocal compensation for calls that originate on one party's network that are directed to Internet service providers ("ISPs") which are located on the other party's network ("ISP traffic"). BST contests KMC's assertion, arguing, inter alia, that ISP traffic does not terminate locally on either party's network and that ISP traffic is interstate, switched exchange access traffic rather than local, and hence no reciprocal compensation is due for these calls.

Jurisdiction

Jurisdiction for the Louisiana Public Service Commission is provided for in the Louisiana Constitution, Article IV, Section 21, which states:

> The commission shall regulate all common carriers and public utilities and have such other regulatory authority as provided by law. It shall adopt and enforce reasonable rules, regulations, and procedures necessary for the discharge of its duties, and shall have other powers and perform other duties as provided by law.

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[1]Local calls, as defined by §1.41 of the KMC/BST Interconnection Agreement.

The Commission has the authority to regulate the service of telephone utilities; its power is sufficiently broad to include adjustment of telephone service to customer needs. South Central Bell Tel. Co. v. Louisiana Public Service Commission, Supp. 1977, 352 So.2d 999. Further, the FCC, in its *Declaratory Ruling*[2] specifically stated, at ¶24, state commissions have the authority to construe "the parties' agreements to determine whether the parties so agreed" to pay reciprocal compensation for ISP-bound traffic.

Additionally, the KMC/BST Interconnection Agreement provides:

> 36.8 Resolution of Disputes: Except as otherwise stated in this Agreement, the Parties agree that if any dispute arises as to the interpretation of the Agreement or as to the proper implementation of this Agreement, the Parties will petition the Commission or the FCC for a resolution of the dispute. However, each Party reserves any right it may have to seek judicial review of any ruling made by the Commission or the FCC concerning this Agreement.
>
> 36.9 Governing Law: This Agreement is subject to the Act, and the effective rules and regulations promulgated pursuant to the Act, and any other applicable federal law, as well as the rules of the Commission, and shall be further governed by and construed in accordance with the domestic law of the state of performance without regard to its conflicts of law principles.

Procedural History

KMC Telecom, Inc. ("KMC") filed this proceeding on January 5, 1999 to require BellSouth Telecommunications, Inc. ("BST") to pay reciprocal compensation under the KMC/BST Interconnection Agreement (the "Agreement"). The complaint was published in the Commission's Official Bulletin on January 22, 1999. On February 1, 1999 AT&T Communications of the South Central States, Inc. ("AT&T"), E.spire Communications, Inc. ("E.spire"), and ITC^DeltaCom Communications, Inc. ("ITC^DeltaCom") all filed separate pleadings to intervene in this proceeding. Cox Louisiana Telcom II, L.L.C. ("Cox") filed a petition for intervention on February 2, 1999 and then on February 3, 1999 filed a Motion for Leave to File out of Time Intervention. BST's answer was received into the docket on March 1, 1999. BST filed a Motion to Strike Interventions or Alternatively to Limit Participation of Intervenors on March 3, 1999. ITC^DeltaCom and E.spire filed their oppositions to BST's motion on March 10, 1999. AT&T and Cox filed oppositions to BST's motion on March 15, 1999. A ruling was issued on April 12, 1999 which allowed partial

[2]Declaratory Ruling in CC Docket Number 96-98 and Notice of Proposed Rulemaking in CC Docket Number 99-68

participation by intervenors, including participation during potentially dispositive portions of the proceeding. Cox withdrew its request for intervention on April 12, 1999.

ITC^DeltaCom filed a Motion for Summary Judgment on March 17, 1999; KMC also filed a Motion for Summary Judgment on March 18, 1999. After the parties briefed the summary motions, oral argument was heard April 12, 1999. The Administrative Law Judge issued a Ruling denying the motions for summary judgment on May 24, 1999.

Testimony was filed by the parties and the hearing was held on May 26, 1999. Posthearing briefs were filed on August 8, 1999 by KMC, E.spire, BST, and Staff. Posthearing reply briefs were filed by KMC, E.spire, BST, Staff, and AT&T. Further, Leave to File Amicus Briefs was filed by Southeastern Competitive Carriers Association ("SECCA"), Cox, and Advance Tel, Inc. ("EATEL"). Cox had previously intervened in this proceeding, but withdrew its intervention upon the issuance of the Ruling on the Motion to Strike Interventions. SECCA also filed a Motion to Intervene with its Amicus Brief. BST filed a Response to the Motions for Leave to File Amicus Briefs and Opposition to SECCA's Motion for Leave to File Out of Time Interventions on August 25, 1999. Leave to file Amicus Briefs was granted on August 30, 1999. The new participants, SECCA, Cox, and EATEL wished to file responses for the limited purpose of replying to Staff's alleged expansion of the proceeding, and their briefs were accepted into the docket.

A proposed recommendation was issued by the Administrative Law Judge on September 10, 1999. Exceptions to the Proposed Recommendation were filed by Staff and BST on September 24, 1999. Replies to BST's and Staff's Exceptions were filed by KMC, E.spire, and SECCA on October 1, 1999. Cox filed a Reply to Exceptions on October 7, 1999.

Summary of Parties Contentions

KMC's Position

In this proceeding, KMC seeks to require BST to pay reciprocal compensation to KMC for calls that originate on BST's network which are directed to ISPs on KMC's network. KMC asserts that payment of reciprocal compensation for ISP-bound traffic is due under the KMC-BST Interconnection Agreement (hereinafter referred to as the "Agreement"), while BST argues that the Agreement does not require reciprocal compensation for this type of traffic.

KMC first asserts that ISP-bound calls have historically been treated by the FCC as local calls, thereby making the calls eligible for reciprocal compensation. KMC uses the 1996 Telecommunications Act (the "Act") and subsequent FCC orders to interpret the reciprocal compensation provisions of the Agreement. KMC especially points to the portions of the FCC's Declaratory Ruling in CC Docket Number 96-98 and Notice of Proposed Rulemaking in CC Docket Number 99-68 (the "*Declaratory Ruling*") wherein the FCC noted ISP traffic historically had been treated as local traffic and allowed state commissions to continue to interpret interconnection agreements. KMC urges that the *Declaratory Ruling* (at ¶23) states that the FCC has treated ISP-bound traffic as though it were local, and the FCC's statement that the traffic is jurisdictionally mixed does not affect the regulatory treatment state commissions may give the traffic. KMC argues that the FCC has, since at least 1983, exempted ISPs from paying interstate access charges. Further, KMC asserts that ISPs pay local rates and ILECs [incumbent local exchange carrier] treat expenses and revenues related to ISPs as local expenses and revenues. KMC also points to the language of ¶25 of the *Declaratory Ruling*, which states that the FCC's "policy of treating ISP-bound traffic as local for the purposes of interstate access charges would, if applied in the separate context of reciprocal compensation, suggest that such compensation is due for that traffic." KMC argues that this passage demonstrates that BST must pay reciprocal compensation for calls from BST customers to ISPs on KMC's network. Finally, KMC points to the multiple factors the FCC set out for state commissions' consideration for analyzing interconnection agreements (found in ¶24 of the *Declaratory Ruling*) for the Commission's consideration.

KMC further argues that the provisions of the Agreement clearly and unambiguously call for reciprocal compensation. KMC asserts that the agreement provides for two types of traffic only: local and toll. KMC further argues that ISP-bound traffic must fall into one of these two types of traffic, and that type must be local traffic. In support of this contention, KMC points to the Agreement's definition of local traffic (§1.41[3]) and argues that if BST wanted to exclude ISP-bound

[3]1.41: "Local Traffic" refers to calls between two or more Telephone Exchange service users where both Telephone Exchange Services bear NPA-NXX designations associated with the same local calling area of the incumbent LEC or other authorized area (e.g. Extended Area Service Zones in adjacent local calling areas). Local traffic includes the traffic types that have been traditionally referred to as "local calling" and as "extended area service (EAS)." All other traffic that originates and terminates between end users within the LATA is toll traffic. In no event shall the Local Traffic area for purposes of local call termination billing between the parties be decreased.

traffic from this definition, it would have done so. Further, KMC asserts that the industry treats this type of traffic as local, therefore the common understanding was that the definition of "local traffic" would include ISP-bound traffic.

KMC also argues that ISP-bound traffic terminates on KMC's network, at the ISP server. KMC points to the definition of "termination" found in In re: Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order, August 8, 1996, ¶1040, which states that termination is "the switching of local telecommunications traffic at the terminating carrier's end office switch, and delivery of such traffic to the called party's premises." Thus, KMC argues, under the FCC definition, the call terminates at the ISP. Further supporting its contention that BST itself treats calls as terminating at the ISP server, KMC points to the 1997 Memorandum from Mr. Bush at BST to all CLECs [competitive local exchange carrier] to inform CLECs that BST would not be paying ISP traffic reciprocal compensation, BST refers to traffic terminating at the ISP server. KMC asserts that if there truly was a need to send this Memorandum to clarify BST's position on the ISP traffic reciprocal compensation issue, then there was some expectation that ISP-bound traffic would receive compensation.

KMC contends that the obligation of BST to pay reciprocal compensation on ISP-bound traffic is found in the Agreement. However, KMC asserts that extrinsic evidence additionally shows that reciprocal compensation is owed so that BST's argument that compensating for ISP-bound traffic would cost BST too much is unavailing. KMC also argues that courts cannot amend or annul a contract to avoid some alleged hardship to a party. KMC replies to BST's argument that there was no meeting of the minds regarding reciprocal compensation by urging that BST is misconstruing Louisiana contract interpretation law. KMC asserts that whether or not there was a meeting of the minds goes to whether or not a contract was formed, relating to offer and acceptance. In this proceeding, KMC urges, the dispute is not if a contract was formed but what the contract says--contract interpretation. KMC, citing C.C. Art. 2054, argues that if the contract is silent on a point, then the parties to the contract are bound to what law, equity, and usage determine should be the outcome.

KMC further states that if BST is not obligated to pay reciprocal compensation, absurd consequences will result in that BST would not have to pay for services rendered to it by KMC.

KMC asserts that even if the Commission believes there was no meeting of the minds regarding the payment of reciprocal compensation, the doctrine of unjust enrichment calls for BST to pay for the services rendered.

BST's Position

BST asserts that the only issue before the Commission is whether or not BST and KMC shared a common intent to pay reciprocal compensation for ISP-bound traffic under the Agreement. BST contends that the parties did not so intend, and that it should not be obligated to do so now.

BST first frames its argument in terms of what is required of ILECs under the Telecommunications Act of 1996. BST cites the portions of the Act, 47 USC 252 (d)(2), which provide for reciprocal compensation for local traffic. BST contends that calls to ISPs do not constitute local traffic, nor terminate at the ISP server, therefore there is no reciprocal compensation obligation for this traffic owed to KMC.

BST argues that because the FCC stated in the *Declaratory Ruling* that ISP-bound traffic is largely interstate, that traffic is not subject to reciprocal compensation. Further, BST asserts, ISP traffic is subject to the FCC's regulation governing the transport and termination of interstate or intrastate interexchange traffic. Therefore, to be subject to federal regulation, the traffic cannot be completely local.

BST also cites portions of the *Declaratory Ruling* wherein the FCC discusses the nature of the call from an end user to an ISP. BST asserts that in ¶12-13, the FCC states that the nature of the call is analyzed by looking at the end-to-end communication, and the call is not broken down into pieces. Therefore, the ends of ISP-bound traffic are the end user and the remote Internet site--not the ISP server, as the call goes through the server to the Internet site. Using this argument, BST asserts that ISP-bound calls do not terminate at the ISP server, but actually terminates at the Internet site accessed, wherever that site may be. Following this argument, BST contends that ISP-bound traffic is interstate, not local, and thus not subject to the reciprocal compensation obligation of the KMC Agreement.

BST states that ISPs use the LEC's local network to institute calls by and to ISP end user customers. BST asserts that the FCC has stated that the portion of the call that is from the LEC to

the ISP is interstate in nature. Typically, there is an interstate access charge assessed by ILECs to LECs for interstate calls. However, the FCC exempted ESP calls from the access charge in the early 1980's to promote the growth of the ESP industry. BST asserts that though the exemption results in the treatment of certain aspects of ISP-bound traffic as local, the fact that the FCC had to exempt it shows that the traffic is not truly local.

BST states that the Act does not require reciprocal compensation when a call originates on one LEC's network and terminates on a remote Internet site. However, the FCC stated there are circumstances where state commissions may find reciprocal compensation is owed: 1) Where parties have agreed to reciprocal compensation and 2) Where the state commission arbitrates the agreement. In this instance, the Commission did not arbitrate the Agreement; rather, KMC and BST came to an Agreement. BST asserts that the Agreement does not provide for reciprocal compensation for ISP-bound traffic.

BST argues that ISP traffic has always been interstate in nature, and if there is any doubt regarding this designation, the law at the time of entering the Agreement controls. BST asserts that the legal understanding at the time the contract was entered into was that the FCC treated ISP-bound traffic as non-local for some purposes. Further, BST asserts that KMC bears the burden of proving the existence of an obligation under the Agreement. To do so, argues BST, KMC must prove that ISP-bound calls are transported by KMC, are terminated on KMC's network, and are local.

BST cites many provisions of the Louisiana Civil Code regarding contract interpretation, using these rules to argue KMC did not carry its burden of proving that parties shares a common intent to pay reciprocal compensation for non-local ISP-bound traffic. Further, BST asserts KMC did not provide any compelling extrinsic evidence regarding intent, as KMC Witness Ms. Breckenridge stated that KMC did not negotiate the contract but merely opted into a contract that was negotiated by some other company. BST also cites the testimony of Ms. Breckenridge to show that KMC did not specifically consider reciprocal compensation at the time KMC opted into the Agreement.

BST argues that KMC's complaint stems solely from the mistaken belief that calls from the end user to the ISP are local and terminate at the ISP server. Further, BST argues that KMC mistakenly believes that reciprocal compensation is required under the Act. BST asserts KMC's

witness Breckenridge could not point to any FCC language that stated ISP-bound calls terminate at the ISP server for purposes of reciprocal compensation.

BST urges that KMC must take the Agreement that it opted into as KMC finds it. Further, BST asserts that under Louisiana contract law, the contract must be interpreted against the obligee (KMC) and in favor of the obligor (BST) when a dispute arises. Additionally, BST addressed the application of the FCC factors regarding interpretation of the Agreement. To this point, BST argued that the factors set forth are only illustrative. Furthermore, BST asserts that many of the factors suggested by the FCC already have FCC rules regarding the factors, calling for LECs to treat the ISP-calls in certain ways. Therefore, BST argues, these factors cannot be used to prove intent of BST.

BST argues that the other state commissions' decisions that KMC cited are not dispositive of this matter. BST asserts that many of the decisions were issued prior to the *Declaratory Ruling* and thus are based on a two-call analysis regarding ISP-bound traffic. The *Declaratory Ruling*, argues BST, did not accept the two-call analysis and any decision based on that analysis must be reconsidered. Additionally, BST argues that some of the cases cited by KMC were arbitrations, and/or the interconnection agreements at issue were not quite the same as the Agreement in this proceeding. Finally, BST argues that those other cases cited by KMC dealt with factual circumstances very different from the facts of this particular case.

BST asserts that their witness, Mr. Hendrix, established that at the time of the contract, BST understood ISP-bound traffic was not local. Further, BST did not then and does not now believe the Act mandates reciprocal compensation. BST argues that the definition of "local traffic" in the Agreement does not implicitly include ISP-bound traffic, therefore there was no need to exclude such traffic. Additionally, the ISP-bound traffic does not terminate at the ISP server, argues BST, asserting technical words must be given technical meanings, contrary to KMC's statement. BST also argues that it has never knowingly paid reciprocal compensation for ISP traffic. In support, BST claims that it began holding all reciprocal compensation billings in October of 1995 and identified a process at least as early as January of 1997 to ensure that it did not bill reciprocal compensation on ISP traffic. BellSouth implemented this process in September of 1997 and wrote off most all prior traffic that it had held.

Finally, BST argues that if it was obligated to pay reciprocal compensation on ISP-bound traffic, that result would be absurd as KMC would then make 338% more revenue from reciprocal compensation than it does from providing service to its 10 ISP customers.

Further, BST asserts that Sections 1.59 and 1.6 of the Agreement are relevant provisions which demonstrate that the parties intended to pay reciprocal compensation only on that traffic which is within the scope of the 1996 Act.[4] BST also argues that ISPs provide Switched Exchange Access Service, therefore such traffic is excluded from reciprocal compensation under Section 1.41 of the Agreement.

BST argues that there is no evidence that KMC is providing a service to BST for which KMC is not being compensated and that KMC is compensated for any such costs in the same manner as BellSouth, from the revenues that it receives from its ISP customers.

Staff's Position

Staff asserts that the FCC has determined that calls to ISPs are to be analyzed as one call, that is, the call that goes from the customer to the ISP to the ultimate Internet site is considered one call. Per this rationale, Staff states that ISP-bound traffic is not subject to state enforcement just because the call is local, for the call is not entirely such. Staff further asserts that the FCC, in the *Declaratory Ruling*, says that state commissions have the power to interpret interconnection agreements, which may bind parties to pay reciprocal compensation for ISP-bound traffic. Thus, Staff contends, the Commission must interpret the Agreement.

Staff maintains that the factors set forth by the FCC in the *Declaratory Ruling* for determining whether or not parties intended to pay reciprocal compensation for calls to ISPs are illustrative only, and the state commissions are the ultimate arbiters of what factors are relevant to interpreting parties' intentions. Staff states that in examining the intent of KMC and BST, it is not within the province of the court to make new contracts for the parties, and the court is confined to only interpreting the agreement between the parties. Staff concludes that given the evidence presented at the hearing,

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[4] 1.59: "Reciprocal Compensation" is as described in the Act, and refers to the payment arrangements that recover costs incurred for the transport and termination of the Telecommunications traffic originating on one Party's network and terminating on the other Party's network.

1.6: "As Described in the Act" means as described in or required by the Act and as from time to time interpreted in the duly authorized rules and regulations of the FCC or the Commission.

KMC and BST had different intentions when entering into the Agreement. Therefore, Staff urges, there was no meeting of the minds, or alike understanding, which is necessary for a valid contract. Ultimately, Staff argues, reciprocal compensation is not owed under the Agreement because KMC and BST did not share an understanding of the treatment of ISP-bound traffic.

Staff further asserts that KMC bears the burden of proof in this proceeding and must prove that the parties intended for reciprocal compensation to be owed for ISP-bound traffic. Staff argues that KMC has not carried its burden of proof and KMC put on an insufficient amount of direct or extrinsic evidence to support its claim that the parties mutually agreed to pay reciprocal compensation. Furthermore, Staff states, there were no negotiations in the reaching of the Agreement, as KMC only opted into an existing Interconnection Agreement. Staff points to the testimony of KMC's witness, Ms. Breckenridge, wherein she testified that KMC did not specifically consider reciprocal compensation. Staff asserts that her testimony proves there was no meeting of the minds regarding the issue of reciprocal compensation for calls to ISPs.

Staff also took a stance on policy issues surrounding reciprocal compensation. Staff asserts that the Commission's duty is to promote efficient entry by new providers into the local exchange market. Staff maintains that the unqualified payment of reciprocal compensation does not promote real competition. Staff argues that to follow KMC's prayed for result, all that would result would be cost shifting, taking money from one source and shifting it to another, which does not bring about a true increase in competition. Finally, staff urged that reciprocal compensation is not owed by BST to KMC for ISP-bound traffic.

Staff filed two brief exceptions to the Proposed Recommendation. Staff, like BST, asserts that KMC properly has the burden of proof at hearing because KMC is demanding performance of the contract. Staff, also like BST, asserts that it objects to the classification of the Agreement as a standard form because no party raised such issue at hearing. Further, Staff urges that KMC came to the negotiating table with BST with the Agreement, therefore if the Agreement is standard form, it is KMC's standard form.

Intervenors' Positions

Intervenors, E.spire, Cox, EATEL, AT&T and SECCA, through their individual filings

adopted the positions and arguments expressed by KMC. Intervenors also urged the Commission to expressly limit its decision in this proceeding to the dispute regarding the KMC/BST Interconnection Agreement.

Factual Findings

1. KMC and BST both provide local exchange services in Louisiana. BST is the incumbent local service provider. KMC has two switches within Louisiana, a Shreveport switch which became operational in November, 1997, and a Baton Rouge switch which became operational in December of 1997. (Tr. Breckenridge at 19, 57)

2. Under Section 901.D of the Louisiana Public Service Commission's Competition Regulations, local exchange carriers are required to interconnect their networks, to transport and terminate local traffic exchanged on those networks, and to make arrangements for mutual compensation for providing transport and termination services.

3. KMC and BST signed an interconnection agreement February 24, 1997 ("Agreement"). The Agreement is a regional agreement between KMC and BST in Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee. (Agreement at 1)

4. In accordance with provisions of Section 252(i) of the Telecommunications Act of 1996, KMC opted into an existing agreement between Metropolitan Fiber Systems and BST. Therefore, the parties did not negotiate the terms of the Agreement in the traditional sense; there were no meetings to hammer out terms of the Agreement between KMC and BST. (Tr. Breckenridge at 27)

5. The Agreement was submitted to the LPSC for review, and approved by the Commission in Order Number U-22404, issued June 20, 1997, pursuant to USC 252(e). No other determination was made with regard to the provisions contained in either 47 USC 251 or 47 USC 271.

6. A series of amendments to the Agreement have been filed. In each instance the Commission did not specifically approve the Agreement; rather, the Commission published the application, allowed the 90 days to elapse, and with no interventions having been received, the agreement was "deemed" approved pursuant to 47 USC 252(1). Dates of Commission letters responding to amendment requests are April 3, 1998; April 17, 1998; July 20, 1998; October 19, 1998; November 5, 1998; January 12, 1999; May 17, 1999.

7. Section 5.8 of the Agreement sets forth the following terms regarding the obligation of the parties to pay reciprocal compensation:

   5.8.1 Reciprocal Compensation applies for transport and termination of local traffic (including EAS and EAS-like traffic) billable by BST or KMC when a Telephone Exchange Service Customer originates on BST's or KMC's network for termination on the other Party's network.

   5.8.2 The parties shall compensate each other for transport and termination of Local traffic (local call termination) at a single identical, reciprocal and equal rate as set forth in Exhibit 8. [The rate is $0.009 per minute.]

   5.8.3 The Reciprocal Compensation arrangements set forth in this Agreement are not applicable to Switched Exchange Access Service. All Switched Exchange Access

Service and all IntraLATA Toll Traffic shall continue to be governed by the terms and conditions of the applicable federal and state tariffs.

8. The Agreement provides the following definitions of certain key terms:

Section 1.59: "Reciprocal Compensation" is As Described in the Act, and refers to the payment arrangements that recover costs incurred for the transport and termination of Telecommunications traffic originating one Party's network and terminating on the other Party's network.

Section 1.6: "As Described in the Act" means as described in or required by the Act and as from time to time interpreted in the duly authorized rules and regulations of the FCC or the Commission.

Section 1.41: "Local Traffic" refers to calls between two or more Telephone Exchange service users where both Telephone Exchange Services bear NPA-NXX designations associated with the same local calling area of the incumbent LEC or other authorized area (e.g., Extended Area Service Zones in adjacent local calling areas). Local traffic includes the traffic types that have been traditionally referred to as "local calling" and as "extended area service (EAS)." All other traffic that originates and terminates between end users within the LATA is toll traffic. In no event shall the Local Traffic area for purposes of local call termination billing between the parties be decreased.

Section 1.70: "Telephone Exchange Service" is As Defined in the Act.

Section 1.63: "Switched Exchange Access Service" means the following types of Exchange Access Services: Feature Group A, Feature Group B, Feature Group D, 800/888 access, and 900 access and their successors or similar Switched Exchange Access services.

9. Tricia Breckenridge was the only person at KMC involved in the negotiation of the Agreement with BST. Tricia Breckenridge decided to opt into an agreement previously entered between BST and Metropolitan Fiber Systems, rather than negotiate the terms of an agreement with BellSouth. Ms. Breckenridge did not read the Agreement prior to deciding to opt into it. Further, Ms. Breckenridge was not specifically considering the issue of reciprocal compensation when she decided to opt into the Agreement. Ms. Breckenridge testified that at the time the Agreement was executed, KMC understood that ISP traffic was treated as local and was included in the Agreement's reciprocal compensation obligations. Post-Hearing Brief at 15, Tr., Breckenridge at 14-16, Prefiled Direct at 7. Ms. Breckenridge was unable, however, to point to any specific language in any rulings or orders that supported her understanding, except when prompted by her counsel.

10. Mr. Jerry Hendrix, the person who executed the Agreement on behalf of BST, testified that BST understood that ISP traffic, like all ESP traffic, is non-local interstate traffic, specifically exchange access traffic. Mr. Hendrix testified that, as such, BST understood that ISP traffic was not subject to the reciprocal compensation obligation contained in Section 252(b)(5) of the 1996 Act. Mr. Hendrix further testified that the Agreement expressly provides that the reciprocal compensation obligation covers only the traffic that is subject to this statutory mandate. Further, Mr. Hendrix testified that the Agreement expressly excludes switched exchange access services from the reciprocal compensation obligation and that the FCC has recognized since the early 1980's that enhanced service providers, of which ISPs are a subset, provide exchange access services. Therefore, the Agreement expressly excludes ISP traffic from the reciprocal compensation obligation contained therein.

11. KMC has billed BST a total of $2,326,464 in reciprocal compensation under the KMC Agreement. Of this amount, BST has paid KMC a total of $165,479 for local, non-ISP, traffic, leaving an outstanding balance of $2,160,985. Cochran Rebuttal at 5.

12. KMC has a total of ten ISP customers being served by its two switches in Louisiana. The amount of reciprocal compensation generated by the traffic flowing to those ten ISP customers approximates the $2,160,985 outstanding reciprocal compensation balance that KMC claims to be owed by BST.

13. KMC generated approximately $636,427 in revenue from providing service to its ten Louisiana ISP customers during the same time period that it billed BST $2,160,985 in reciprocal compensation for traffic to those ten ISP customers.

14. BST began holding all reciprocal compensation billings to CLECs in October of 1995. At least as early as January of 1997, BST identified a process to ensure that ISP traffic would not be included in its reciprocal compensation billings to CLECs. BST implemented this process in September of 1997 and wrote off most all prior reciprocal compensation billings.

15. BST never knowingly billed or paid reciprocal compensation on any non-local traffic, including ISP traffic.

16. ISP traffic does not terminate locally at an ISP server, but rather transits through the ISP server for termination at a distant website, somewhere outside of the local calling area. ISP traffic is, therefore, interstate exchange access traffic that is not subject to the reciprocal compensation obligation contained in Section 252(b)(5) of the Telecommunications Act of 1996.

17. FCC regulations require that ISP traffic be exempted from the access charge regime. Pursuant to this exemption, ISPs are treated as end users for purposes of assessing access charges, and the FCC permits ISPs to purchase their links to the public switched telephone network through intrastate business tariffs rather than through interstate access tariffs. Thus, ISPs generally pay local business rates and interstate subscriber line charges for their switched access connections to local exchange company central offices. In addition, incumbent LECs are required to treat expenses and revenue associated with ISP traffic as intrastate for separations purposes.

18. There is no prevailing industry custom of treating ISP traffic as "local" for reciprocal compensation purposes. FCC regulations require that ISPs be treated as end users for only one purpose, the access charge exemption.

19. KMC failed to produce any evidence to support its claim that if it does not receive reciprocal compensation for transporting ISP traffic originating on BellSouth's network, that it will incur otherwise uncompensated costs.

20. ISPs are a subset of Enhanced Service Providers ("ESPs) that utilize interstate switched exchange access services to connect to local exchange company central offices.

FCC's Declaratory Ruling

On February 26, 1999, in Common Carrier Docket Number 99-68, the FCC declared that the 1996 Act , 47 U.S.C. sec. 251(b)(5), mandated reciprocal compensation for the transport and termination of ***local*** traffic ***only***. The FCC further held that this mandate does not extend to ISP-bound traffic, because ISP-bound traffic is not local but is interstate for purposes of the 1996 Act's reciprocal compensation provisions. ISP-bound traffic is not subject to state enforcement under the

1996 Act on the grounds that it is local traffic. *See* Declaratory Ruling at ¶ 12 and 26 n.87. The FCC ruling effectively undermined the jurisdictional claim of state utility regulators over ISP-bound traffic.

In ruling in favor of federal versus state regulatory jurisdiction over ISP-bound traffic and in construing 47 U.S.C. sec. 251(b)(5), the FCC focused on the "end-to-end" nature of the Internet communication. The initiating caller or customer is one "end" of the communication, and the terminating "end" is the web or other Internet site called by the customer. The FCC rejected arguments that would segment such traffic into intra- and inter-state portions and thereby also rejected a consequent, artificial segmentation of jurisdiction. Id. at ¶ 11. The FCC noted that it "analyzes the totality of the communication when determining the jurisdictional nature of a communication . . . [and] recognizes the inseparability, for purposes of jurisdictional analysis, of the information service and the underlying telecommunications." Id. at ¶ 13. The FCC considers each such commercial transaction as "one call" "from its inception to its completion" and accordingly rejected the jurisdictional limitation implied by arbitrarily isolating the initial part of the call from the rest of the stream of interstate commerce. Id. at ¶ 11.

In its ruling, however, the FCC did not in itself determine whether reciprocal compensation is due in any particular instance. Rather, the FCC held that parties should be bound by their existing interconnection agreements, as interpreted by state commissions. It found no reason to interfere with state commission findings as to whether reciprocal compensation provisions of interconnection agreements apply to ISP-bound traffic, pending adoption of a federal rule establishing an appropriate interstate compensation mechanism.

Analysis

The central issue presented by KMC's complaint is whether KMC and BST shared a common intent (mutually agreed) to pay reciprocal compensation for traffic that originates on the network of one of the parties and is transported to an ISP customer served by the network of the other party (ISP traffic), even though neither the Telecommunications Act of 1996 or any other law or regulation requires the parties to pay reciprocal compensation for ISP-bound traffic. For the reasons stated below, the Louisiana Public Service Commission ("LPSC" or "Commission") finds that KMC and BST do not owe reciprocal compensation for ISP traffic under the terms of their Agreement.

Article 2045 of the Louisiana Civil Code provides that the "[i]nterpretation of a contract is the determination of the common intent of the parties." "When the words of a contract are clear and explicit and lead to no absurd consequences, no further interpretation may be made in search of the parties' intent." La. Civ. Code art. 2046. "A party who demands performance of an obligation must prove the existence of the obligation." La. Civ. Code art. 1831; *see* Louisiana Gaming Corp. v. Rob's Mini-Mart, Inc. 666 So.2d 1268, 1270 (La. App. 2nd Cir. 1996)("The party claiming rights under the contract bears the burden of proof."); Woodward v. Felts, 573 So.2d 1312, 1315 (La. App. 2d Cir. 1991)("The party who asserts an obligation must prove it by a preponderance of the evidence."). Thus, KMC bears the burden of proving the existence of an obligation on the part of BellSouth to pay reciprocal compensation for ISP traffic under the KMC Agreement.

The provisions of the KMC Agreement provide that the parties are required to pay reciprocal compensation to each other only for the transport and termination of "Local Traffic" as defined in the KMC Agreement, and that "Switched Exchange Access Traffic" is expressly excluded from the terms of that obligation. *See* Factual Findings 7&8. Thus, KMC bore the burden of proving (1) that it "transports" the ISP traffic for which it claims reciprocal compensation, (2) that it "terminates" this ISP traffic on its network, (3) that such traffic falls within the definition of "Local Traffic" as defined in the KMC Agreement, and (4) that such traffic is not "Switched Exchange Access Traffic," as defined in the KMC Agreement.

ISP Traffic Does Not "Terminate" Locally.

One of the major disputes in this matter has been over whether ISP traffic "terminates" locally. When KMC initially filed its Complaint that established this docket, KMC argued that ISP traffic constituted "two components, a telecommunications component and an information services component." Complaint, ¶42. This argument is typically referred to as the "two-call model." KMC argued initially that the telecommunications component "terminated" locally at the ISP server. After the filing of its Complaint, the FCC issued its *Declaratory Ruling* on ISP traffic in which it stated unequivocally that ISP traffic does not terminate locally at the ISP server, but rather continues on to distant websites outside of the local calling area. *See Declaratory Ruling*, ¶12. The FCC based its determination on a consistent line of prior precedent dating back several decades. Further, the FCC

expresaly considered and rejected the "two-call model," noting that its prior precedent has established a consistent, end-to-end analysis for determining where the call originates and terminates. In the Matter of Southwestern Bell Tel. Co., CC Docket No. 88-180, Order Designating Issues for Investigation, 3 FCC Rcd 2339, 2341 (1988)("[T]he jurisdictional nature of a call is determined by its ultimate origination and termination, and not ... its intermediate routing." Emphasis added.); BellSouth Memory Call, Petition for Emergency Relief and Declaratory Ruling Filed by BellSouth Corporation, 7 FCC Rcd 1619, 1620(1992) ("there is a continuous path of communications across state lines between the caller and the voice mail service."); Teleconnect, Teleconnect Co. v. Bell Telephone Co. of Penn., E-88-83, 10 FCC 1626, 1629 (1995), aff'd sub nom. Southwestern Bell Tel. Co. v. FCC, 116 F.3d 593 (D.C. Cir. 1997)("[B]oth court and Commission decisions have considered the end-to-end nature of the communications more significant than the facilities used to complete such communications. According to these precedents, we regulate an interstate wire communications under the Communications Act from its inception to its completion. [A]n interstate communication does not end at an intermediate switch. . . . The interstate communication itself extends from the inception of a call to its completion, regardless of any intermediate facilities.").

After the issuance of the *Declaratory Ruling*, KMC abandoned its reliance on the "two-call model," and began to argue that for "regulatory purposes" ISP traffic is "treated" as terminating locally. In support of this new argument, KMC relies on general statements in the FCC's *Declaratory Ruling* and ¶1040 of the FCC Interconnection Order. First Report and Order, In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, 11 F.C.C. Rcd. 15499 (August 8, 1996)("FCC Interconnection Order").

The *Declaratory Ruling* provides no support for KMC's claim; the FCC stated expressly that "the communications at issue here do not terminate at the ISP's local server, as CLECs and ISPs contend, but continue to the ultimate destination or destinations, specifically at a Internet website that is often located in another state." *Declaratory Ruling*, ¶12. As further support for the finding that a call has only one point of termination, the FCC recognized that its "conclusion that ISP-bound traffic is largely interstate might cause some state commissions to re-examine their conclusion that reciprocal compensation is due to the extent that those conclusions are based on a finding that this traffic terminates at an ISP server ...." Id. ¶27. Emphasis added. Thus, it cannot be seriously argued

that ISP traffic has more than one point of termination or that it actually does terminate locally at the ISP server, even though the FCC has stated emphatically that it does not.

For these very reasons, it is impossible to square KMC's interpretation of ¶1040 of the FCC Interconnection Order with the findings in the *Declaratory Ruling*. Indeed, if ISP traffic did terminate locally under KMC's interpretation of ¶1040, reciprocal compensation would be owed as a matter of law pursuant to section 251(b)(5) of the 1996 Act. It is undisputed, however, that reciprocal compensation is not required by law for this traffic. *See Declaratory Ruling*, ¶26, n.87 ("[T]he reciprocal compensation requirements of section 251(b)(5) of the Act and Section 51, Subpart H (Reciprocal Compensation for Transport and Termination of Local Telecommunications Traffic) of the Commission's rules do not govern inter-carrier compensation for this traffic.").[3]

Finally, KMC points to certain statements made by BellSouth in which it misuses the term "terminates." Such misuses do not affect the interpretation of the Agreement. Article 2047 of Louisiana's Code of Civil Procedure provides that "[w]ords of art and technical terms must be given their technical meaning when the contract involves a technical matter." The termination requirement has only one technical meaning, as recently confirmed by the FCC, and that is the ultimate end point of the communication. Thus, KMC has failed to carry its burden of proving that it actually does "terminate" ISP traffic on its network as is required by the reciprocal compensation obligation of the Agreement.

ISPs Provide Switched Exchange Access Service.

As previously stated, BST and KMC expressly excluded Switched Exchange Access Services from the reciprocal compensation obligation of the KMC Agreement. BST argues that ISPs provide switched exchange access services to their subscribers and that such traffic is therefore expressly excluded from the reciprocal compensation obligation of the Agreement. BST's claims are based upon the prior rulings of the FCC regarding Enhanced Service Providers ("ESPs"), of which ISPs are

[3]The FCC Interconnection Order interpreted the scope of the reciprocal compensation obligation: "We conclude that section 251(b)(5)'s reciprocal compensation obligations should apply only to traffic that originates and terminates within a local calling area. . . .

. . . .

We find that the reciprocal compensation provisions of section 251(b)(5) for transport and termination of traffic do not apply to transport or termination of interstate or intrastate interexchange traffic."

a subset. *See Declaratory Ruling*, ¶1, n.1. In response, KMC claimed that ISP traffic is not expressly excluded in the Agreement. Likewise, the Administrative Law Judge did not consider whether ISP traffic is switched exchange access traffic, but rather focused on the fact that a specific ISP exception was not included in the KMC Agreement.

This Commission chooses to consider the actual terms of the KMC Agreement, rather than speculate as to what terms could have been in the KMC Agreement. The FCC has recognized since the inception of the access charge regime that ESPs use switched exchange access services. In the MTS/WATS Market Structure Order, the FCC found that ESPs use interstate access service and exempted ESPs from paying access charges. MTS and WATS Market Structure, CC Docket No. 78-72, Memorandum Opinion and Order, 97 FCC 2d 682, 711 (1983)("Market Structure Order")("Among the variety of users of access service are ... enhanced service providers"). *See* also, Amendments to Part 69 of the Commission's Rules Relating to Enhanced Service Providers, CC Docket No. 87-215, Order, 2 FCC Rcd. 4305, 4306 (1987)(ESPs, "like facilities-based interexchange carriers and resellers, use the local network to provide interstate services"); Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers, CC Docket No. 87-215, Order, 3 FCC Rcd 2631 (1988)(ESP Exemption Order)(FCC refers to "certain classes of exchange access users, including enhanced service providers").

The FCC confirmed the status of those services provided by ESPs, including ISPs, in its recent *Declaratory Ruling*: "Although the Commission has recognized that enhanced service providers (ESPs), including ISPs, use interstate access services, since 1983 it has exempted ESPs from the payment of certain interstate access charges. . . . Thus, ESPs generally pay local business rates and interstate subscriber line charges for their switched access connections to local exchange company central offices." *Declaratory Ruling*, ¶5 (Emphasis added).

In light of the above quoted FCC precedent that has found consistently that ISPs use switched exchange access services, such services do fall within the exception contained in Section 5.8.3 of the KMC Agreement. *See* Factual Finding No. 7.

The KMC Agreement Provides that the Parties Intended to do Nothing More Than the 1996 Act Required.

Any doubt as to the parties' intent, as expressed in the KMC Agreement, regarding the scope of the reciprocal compensation obligation is removed by the express statements regarding intent found in Sections 1.59 and 1.6 of that Agreement. *See* Factual Finding No. 8. Given that the parties expressly state that the reciprocal compensation obligation in the Agreement is "as described in or required by the [1996] Act and as from time to time interpreted in the duly authorized rules and regulations of the FCC," it is clear that the parties intended to do nothing more or less than the 1996 Act required. As previously stated, the 1996 Act does not obligate the parties to pay reciprocal compensation for any non-local, interstate traffic. The administrative law judge did not analyze these provisions of the KMC Agreement in reaching the conclusions contained in the proposed and final recommendations.

KMC Failed to Produce Extrinsic Evidence that the Parties Intended to Pay Reciprocal Compensation for ISP traffic.

Even if the terms of the reciprocal compensation obligation of the Agreement were found to be ambiguous, KMC failed to meet its burden of producing sufficient extrinsic evidence to establish that the parties mutually intended to pay reciprocal compensation for non-local, ISP traffic. The only representative of KMC that was responsible for deciding the terms of the interconnection agreement to be entered with BST, Ms. Tricia Breckenridge, testified that (1) neither she nor anyone else at KMC had any conversations with BST regarding the terms of the interconnection agreement (Hearing Transcript, pp. 24, 27), (2) she chose to opt into an agreement that some other company had negotiated with BST rather than negotiate her own agreement (Id. pp. 27-28), (3) she did not read the agreement that she chose to opt into (Id. p. 29), and (4) she was not looking specifically at reciprocal compensation issues when she was deciding what agreement to opt into. Id.

In light of the sworn testimony of the KMC witness, it is difficult to conceive of how KMC is in a position to claim the benefit of any possible ambiguity in the KMC Agreement, given the cavalier attitude that KMC took in entering the Agreement. Ms. Breckenridge claimed that she relied on various unspecified FCC orders and the fact that BST "treated" ISP traffic as local for other purposes and thus assumed that it would be "treated" as local for purposes of reciprocal

compensation. Ms. Breckenridge could not, however, specifically identify what FCC orders she actually relied upon. Even if Ms. Breckenridge was relying upon any specific FCC orders, it is clear that her interpretation of those orders was incorrect.

Not only did BST properly interpret the prior FCC rulings regarding the nature of ISP traffic, BST presented other extrinsic evidence to establish that it never intended to pay reciprocal compensation for non-local, ISP traffic and that it would never have agreed to pay reciprocal compensation for such traffic due to the negative economic consequences that such an arrangement would have ensured.

First, BST presented uncontroverted evidence of the efforts that it undertook to ensure that it did not bill any CLECs reciprocal compensation for ISP traffic, or any other non-local traffic. In October 1995, BST began holding all reciprocal compensation billings to CLECs, including reciprocal compensation billings for local traffic. Prior to entering the KMC Agreement, BST had identified a method to ensure that it would not bill reciprocal compensation for ISP traffic and was working to implement the enhancement to its billing system. This enhancement was implemented in September of 1997, before KMC had even begun billing BST for reciprocal compensation, and BST wrote off most all of the prior traffic that it had withheld from reciprocal compensation billing.

The uncontroverted evidence establishes that BST never knowingly billed or paid reciprocal compensation for ISP traffic. These facts distinguish this case from the numerous other cases upon which KMC cites and relies. Other Regional Bell Operating Companies ("RBOCs") did not undertake any effort to identify or separate out ISP traffic. Indeed, some RBOCs had established a course of conduct of billing and paying reciprocal compensation for several months before informing CLECs that they would no longer pay reciprocal compensation for ISP traffic.

Finally, BST put forth evidence that it would not have agreed to pay reciprocal compensation for ISP traffic because such an arrangement would have certainly resulted in economic harm to BST. Given that CLECs such as KMC primarily, if not exclusively, serve business customers including ISPs, while BST serves the vast majority of internet end-users, paying reciprocal compensation on ISP traffic would result in absurd amounts of reciprocal compensation flowing to the CLECs. Indeed, in this particular case, KMC billed BST reciprocal compensation for ISP traffic that was approximately 340% more than KMC received in revenue from providing actual service to its ten (10)

ISP customers in Louisiana. *See* Factual Findings Nos. 11-13. The negative impact on competition in the local market as well as the potential for abusing the reciprocal compensation obligation from permitting such an arrangement are obvious.

In response, KMC claims that if it does not receive reciprocal compensation for ISP traffic from BST, it will be providing a service to BST for free and will incur certain uncompensated costs. KMC did not put forth any evidence as to the nature or amount of these costs that KMC claimed would go uncompensated and the Commission refuses to simply take KMC's word at face value.

Docket Number U-23839 was considered and decided at the Commission's October 13, 1999 Business and Executive Session. On substitute motion of Commissioner Blossman and seconded by Commissioner Sittig, with Commissioner Dixon concurring and Commissioners Owen and Field dissenting, the Commission voted to reject the Administrative Law Judge's Recommendation and adopted the Staff Recommendation to reject KMC's claim for reciprocal compensation for ISP-bound traffic.

IT IS THEREFORE ORDERED

That KMC's request for payment of reciprocal compensation for ISP-bound traffic is hereby denied.

BY ORDER OF THE COMMISSION
BATON ROUGE, LOUISIANA
October 28, 1999

/S/ C. DALE SITTIG
DISTRICT IV
CHAIRMAN C. DALE SITTIG

/S/ JACK "JAY" A. BLOSSMAN, JR.
DISTRICT I
VICE CHAIRMAN JACK "JAY" A. BLOSSMAN, JR.

DON OWEN (DISSENTING)
DISTRICT V
COMMISSIONER DON OWEN

/S/ IRMA MUSE DIXON
DISTRICT III
COMMISSIONER IRMA MUSE DIXON

/S/ LAWRENCE C. ST. BLANC
SECRETARY
LAWRENCE C. ST. BLANC

JAMES M. FIELD (DISSENTING)
DISTRICT II
COMMISSIONER JAMES M. FIELD

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BEFORE

THE PUBLIC SERVICE COMMISSION OF

SOUTH CAROLINA

DOCKET NO. 1999-259-C - ORDER NO. 1999-690

OCTOBER 4, 1999

IN RE: Petition of ITC^DeltaCom Communications, Inc. for Arbitration with BellSouth Telecommunications, Inc. Pursuant to the Telecommunications Act of 1996.	))))	ORDER ON ARBITRATION

I. INTRODUCTION

This arbitration proceeding is pending before the South Carolina Public Service Commission ("Commission") pursuant to Section 252 (b) of the Telecommunications Act of 1996 ("1996 Act"). This proceeding arose after ITC^DeltaCom Communications, Inc. ("ITC^DeltaCom") and BellSouth Telecommunications, Inc. ("BellSouth") were unable to reach agreement on all issues despite the good faith negotiations conducted over an extended period of time. On June 11, 1999, ITC^DeltaCom filed a Petition for Arbitration with BellSouth in South Carolina. BellSouth filed its Response to ITC^DeltaCom's Petition on July 6, 1999. The Petition and Response included a list of some seventy-three (73) issues to be decided by this Commission.

The Hearing of this Arbitration was held on September 8 – 9, 1999, with the Honorable Philip T. Bradley, Chairman, presiding. Prior to the evidentiary hearing, the parties were able to resolve approximately forty (40) of the disputed issues that were originally listed in the Petition. Thus, this Commission will only address in this Order the remaining disputed issues as of the date of the Hearing. At the evidentiary hearing,

ITC^DeltaCom was represented by Mitchell Willoughby, Esquire; B. Craig Collins, Esquire; David I. Adelman, Esquire; and Nanette S. Edwards, Esquire. ITC^DeltaCom offered the testimony of Christopher J. Rozycki; Stephen D. Moses[1]; Michael Thomas; Michael Starkey and Don J. Wood. BellSouth was represented by Caroline N. Watson, Esquire; William F. Austin, Esquire; Lisa Foshee, Esquire; and Thomas B. Alexander, Esquire. BellSouth offered the testimony of Alphonso J. Varner; Dr. William Taylor; D. Daonne Caldwell; David L. Thierry; David D. Scollard; Ronald M. Pate and W. Keith Milner.

The purpose of this Arbitration proceeding is the resolution by the Commission of the remaining disputed issues set forth in the Petition and Response. 47 U.S.C.§ 252(b)(4)(C). Under the 1996 Act, the Commission shall ensure that its arbitration decision meets the requirements of Section 251 and any valid Federal Communications Commission ("FCC") regulations pursuant to Section 252; shall establish rates according to the provisions of Section 252(d) for interconnection, services, and network elements; and shall provide a schedule for implementation of the terms and conditions by the parties to the Agreement. 47 U.S.C. § 252(c).

II. Procedural Motions

A. BellSouth's Motion to Strike.

At the beginning of the Hearing the Commission heard oral arguments from counsel for BellSouth and counsel for ITC^DeltaCom regarding BellSouth's Motion to Strike and Exclude Certain Testimony of ITC^DeltaCom. (Tr. Vol. 1 at 10-46).

[1] ITC^DeltaCom prefiled the testimony of Thomas Hyde; however, due to personal reasons, Mr. Hyde did

Specifically, through its Motion, BellSouth sought to strike certain portions of the prefiled direct and rebuttal testimony of ITC^DeltaCom witnesses, Thomas Hyde (whose testimony was adopted by Stephen D. Moses) and Don Wood, and to exclude any related live testimony at the Hearing. Principally, the Motion to Strike and Exclude was directed at testimony by Mr. Hyde (Moses) and Mr. Wood that attempted to put in evidence information regarding BellSouth's recurring and nonrecurring costs as to certain unbundled network elements ("UNEs") and the expansion of Issue No. 5 from one (1) issue stated in ITC^DeltaCom's Petition to four (4) separate issues. At the conclusion of oral argument, the Commission announced that it would take BellSouth's Motion to Strike and Exclude under advisement and rule on it in the Commission's Final Order. (Tr. Vol. 1 of p. 46). Upon review, the Commission finds now that BellSouth's Motion to Strike and Exclude should be denied.

With regard to the portion of BellSouth's Motion to Strike that seeks to have portions of rebuttal testimony of ITC^DeltaCom's witnesses Wood and Hyde excluded, BellSouth asserts that it is not appropriate for ITC^DeltaCom, through this two-party arbitration, to attempt to re-litigate UNE cost issues that this Commission decided in an open generic proceeding regarding BellSouth's costs to provision UNEs in South Carolina. (*See* Order, June 1, 1998, Docket No. 97-374-C, *Proceeding to Review BellSouth Telecommunications, Inc.'s Cost Studies for Unbundled Network Elements).* Further, BellSouth asserts that portions of the testimony are based on evidence that is not in the record of the instant proceeding. ITC^DeltaCom argues that the law with regard to

not appear and was replaced at the Hearing by Mr. Stephen D. Moses, also an employee of ITC^DeltaCom.

UNE rates has changed since the Commission's approved UNE rates for BellSouth and that the rates are not compliant with FCC Rules. ITC^DeltaCom states that it propounded discovery to BellSouth, to which BellSouth properly responded, and that the discovery led to information upon which the ITC^DeltaCom witness based his opinion. Therefore, ITC^DeltaCom contends that it may properly challenge and present evidence of FCC compliant rates within the context of this Arbitration proceeding.

Upon consideration of the Motion to Strike, the Commission is cognizant that it has broad discretionary powers in admitting or excluding evidence much like that of a trial court. *See Hoeffer v. The Citadel*, 311 S.C. 361, 429 S.E.2d 190 (1993), rehearing denied. Further, the Commission is aware that the South Carolina Rules of Evidence allow for an expert to rely on information which is not admissible into evidence to form his or her expert opinion. See, Rule 703, SCRE. The Commission concludes that the Motion to Strike relating to witness Wood's rebuttal testimony and witness Hyde's rebuttal testimony should be denied and that the testimony should be admitted. In admitting the evidence, the Commission is not concurring with ITC^DeltaCom's assertion that the UNE rates are properly challenged in this Arbitration proceeding. The Commission is merely admitting evidence which the Commission may, or may not, consider in its deliberations and give that evidence whatever weight or credibility the Commission deems appropriate.

BellSouth also contends that it is not appropriate for ITC^DeltaCom to attempt to add new issues to this Arbitration proceeding by expanding Issue No. 5 from one (1) issue in the Petition to four (4) separate issues. ITC^DeltaCom asserts that it expressly

incorporated a proposed interconnection agreement and summary issues matrix into its Petition for Arbitration which was filed on June 11, 1999. Additionally, ITC^DeltaCom states that the binding forecast issue was addressed in the prefiled testimony of BellSouth witness Varner.

The Commission concludes that BellSouth's Motion to Strike as regarding Issue 5 should be denied. The Commission recognizes that the issue of binding forecast, as stated in the restated Issue 5 proposed by ITC^DeltaCom, was addressed by BellSouth in its prefiled testimony. Further, the subtopics identified in Issue 5 as stated by ITC^DeltaCom are set out in the Exhibit B which was attached to the Petition and incorporated by reference; Exhibit B provided a summary of the issues on which the parties had not reached agreement. *See* Petition for Arbitration of ITC^DeltaCom, p. 3, ¶ 7 and Exhibit B to Petition. Inasmuch as BellSouth filed testimony on the restated issue, including the issue of binding forecast, the Commission can find no prejudice to BellSouth. As no prejudice has been demonstrated, the Commission denies BellSouth's Motion to Strike with regard to Issue 5.

B. ITC^DeltaCom's Objection to Introduction of BellSouth's Service Quality Measurements.

During the Hearing, the Commission requested both parties to review and compare the other party's performance measurements and to report back with the results. BellSouth prepared a written analysis comparing the two sets of measurements. ITC^DeltaCom did not do so. In order to make the comparison document meaningful, BellSouth also presented the Commission with a copy of BellSouth's most recent version

of its performance measurements, which it calls, Service Quality Measurements ("SQMs"). Counsel for BellSouth requested that both documents be admitted into evidence in this proceeding. ITC^DeltaCom objected to admission of the SQMs. The Commission marked the documents for identification only and stated that it would rule on their admissibility in the Final Order. The Commission now overrules ITC^DeltaCom's objection and allows the exhibits to be admitted into the evidence of record in this proceeding as Hearing Exhibit No. 17. The Commission has wide latitude in accepting evidence at proceedings such as this one, akin to that of a trial court. *See Hoeffer v. The Citadel, supra.* The Commission requested both parties to provide comparisons of the other's performance measurements. BellSouth was the only party to do so. The Commission finds BellSouth's comparison document extremely helpful. Moreover, the Commission finds that it is both necessary and useful to have BellSouth's actual Service Quality Measurements in the record to determine an unresolved issue in this proceeding.

III. DISCUSSION OF ISSUES FOR ARBITRATION.

Based upon a careful consideration of the entire record in this Arbitration proceeding, the Commission makes the following determinations and decisions regarding the issues presented in this arbitration proceeding:

Issue 1(a)
Should BellSouth be required to comply with performance measures and guarantees for pre-ordering/ordering, resale, and unbundled network elements ("UNEs"), provisioning, maintenance, interim number portability and local number

portability, collocation, coordinated conversions and the bona fide request processes as set forth fully in Attachment 10 of Exhibit A to this Petition?

ITC^DeltaCom Position:

Yes. BellSouth should be required to provide performance measures and three-tiered performance guarantees as proposed by witness Rozycki and incorporated into contract language in Attachment 10 to Exhibit A to the Petition. Section 251(c)(3) of the Act requires nondiscriminatory unbundled access to all UNEs including OSS. See First Report and Order of the FCC (OSS is UNE) CC Docket 96-98, ¶ 525. Thus it is also a requirement of Section 271 of the Act. BellSouth itself proposed self-executing performance guarantees. See BellSouth's Ex Parte Proposal to the FCC for Self Effectuating Measures, April 3, 1999.

BellSouth Position:

BellSouth disagrees that the so called "performance measures" and performance "guarantees" in Attachment 10 to the Petition are appropriate. The South Carolina Commission has previously declined to establish additional performance and service measurements in an arbitration proceeding, having found that: "[t]his Commission already has service measurements in place. BellSouth must provide the same quality of services to AT&T that it provides to its own customers.... " (*See* Order No. 97-189, at 5-6, March 10, 1997, Docket No. 96-358-C, *AT&T/BellSouth Arbitration*). BellSouth has offered a comprehensive set of performance measurements (Service Quality Measurements or "SQMs") which ensure that BellSouth provides ITC^DeltaCom and all other CLECs with nondiscriminatory access as required by the 1996 Act and applicable rules of the Federal Communications Commission ("FCC"). BellSouth also is willing to provide ITC^DeltaCom any additional performance measurements that the Commission may order BellSouth to provide to other CLECs in this state.

With respect to performance "guarantees", BellSouth does not believe that financial incentives, "guarantees", penalties or liquidated damages are appropriate matters for arbitration under the 1996 Act. ITC^DeltaCom's proposal is not required by the 1996 Act and represents a supplemental enforcement scheme that is inappropriate and unnecessary. ITC^DeltaCom has adequate legal recourse in the event BellSouth breaches its interconnection agreement. Moreover, the South Carolina Commission has previously determined that it "lacks the jurisdiction or legislatively-granted authority to impose penalties or fines" in the context of a similar arbitration proceeding. (See Order No. 97-189, at 6, March 10, 1997, Docket 96-358-C, AT&T/BellSouth Arbitration).

Discussion:

The Commission has been presented with two (2) sets of performance measurements by which BellSouth's provision of services to competitive local exchange

carriers ("CLECs"), such as ITC^DeltaCom, may be measured. On the one hand, ITC^DeltaCom witness Mr. Rozycki offered a set of performance measures and performance guarantees which may be found as Attachment 10 to Exhibit A of ITC^DeltaCom's Petition. Mr. Rozycki testified that these were very similar to a set of performance measures/performance guarantees that had been used by CLECs and the incumbent local exchange carrier ("ILEC") in Texas. (Rozycki, Tr. Vol. 1 at 69). Mr. Rozycki testified that the performance guarantee aspect of the performance measurements that ITC^DeltaCom was supporting included a three-tiered system of financial consequences if BellSouth were not to meet certain levels of performance under the forty-five (45) different measurements proposed by ITC^DeltaCom. For example, a failure under the second tier constitutes a "specified performance breach" and would require BellSouth to compensate ITC^DeltaCom $25,000 for each measurement BellSouth failed to meet. A failure to perform under the third tier constitutes a "breach-of-contract" which would require BellSouth to pay penalties in the amount of $100,000 for each default for each day the breach or default continues. (Rozycki, Tr. Vol. 1 at 68 - 71). At the Hearing, Mr. Rozycki changed positions and offered to have any such penalties made payable to the State of South Carolina rather than individually to ITC^DeltaCom. (Tr. Vol. 1 at 119 and 691).

On the other hand, BellSouth offered its own detailed set of performance measurements developed over the last two years by working with various state commissions and CLECs. (Tr. Vol. 1 at 727). BellSouth witness Mr. Varner testified that BellSouth is taking very seriously the FCC's request for "clear and precise"

measurements by which CLECs and regulators can confirm nondiscriminatory provisioning of network facilities and services. (Ameritech-Michigan Order 12 FCC Rcd. at 20655-56, ¶ 209. Mr. Varner testified that BellSouth's Service Quality Measurements ("SQMs") covered nine (9) separate categories of measurements: (1) Pre-Ordering OSS; (2) Ordering; (3) Provisioning; (4) Maintenance & Repair; (5) Billing; (6) Operator Services (Toll) and Directory Assistance; (7) E911; (8) Trunk Group Performance; and (9) Collocation. (Varner, Tr. Vol. 1 at 405 - 406 and Hearing Ex. 17 at 1 (Table of Contents)). BellSouth's Service Quality Measurements, which comprise some 69 pages of details regarding how these nine (9) categories are measured, is part of Hearing Exhibit No. 17.

Also, a part of Hearing Exhibit No. 17 is BellSouth's Matrix which compares ITC^DeltaCom's proposed performance measurements to BellSouth's Service Quality Measurements. Mr. Varner stressed that by using BellSouth's detailed set of measurements, along with the raw data provided, ITC^DeltaCom and the Commission can monitor BellSouth's performance and verify that services are being provided at parity with BellSouth and with other CLECs. Rather than attempting to negotiate different performance measurements in the various individual interconnection agreements for each CLEC doing business in BellSouth's region, as ITC^DeltaCom is attempting to do through its own version of performance measurements taken from another state outside BellSouth's region, BellSouth states that it is committed to delivering BellSouth's Service Quality Measurements equally to all CLECs, including ITC^DeltaCom. (Varner, Tr. Vol. 1 at 405 - 407). Significantly, BellSouth's SQMs have been approved by several

state Commissions and have been incorporated into numerous interconnection agreements with other CLECs in BellSouth's region. (Tr. Vol. 1 at 726-727).

Mr. Varner also testified that the so-called performance "guarantees" are nothing more than penalties or liquidated damages. As such, they are not an appropriate matter to be determined through arbitration. (Varner Tr. Vol. 1 at 407 - 408) None of the requirements found in Section 251 of the 1996 Act involves a duty for the parties to agree on a set of financial performance guarantees or liquidated damages-type provisions. The 1996 Act does not specifically require an arbitrated agreement to satisfy any conditions regarding performance guarantees, penalties or liquidated damages. BellSouth noted that state law and state and federal commission procedures are available, and perfectly adequate, to address any performance or breach of contract situation should it arise. For example, BellSouth's SQMs are fully enforceable through commission complaints in the event of BellSouth's failure to meet such measurements.

Dr. William Taylor, on behalf of BellSouth, testified that performance measures "based on penalties or liquidated damages are completely unnecessary and inappropriate. Apart from the fact that legal and other remedies are already available, ITC^DeltaCom's proposed performance guarantee system suffers from an important incentive problem known in economics as ***moral hazard.***" (Dr. Taylor, Tr. Vol. 1 at 548). (emphasis in original). As Dr. Taylor explained, moral hazard is a form of gaming by which one party to a contract may resort to actions – within the contract – that create unanticipated competitive or financial advantage for that party ***at the expense of the other party*** to the contract. (Dr. Taylor, Tr. Vol. 1 at 548 – 549). Dr. Taylor's testimony on this point may

explain Mr. Rozycki's change in positions --- the penalties are now proposed to be paid to the State rather than ITC^DeltaCom. Even with this change of position, the problem of "moral hazard" still exists.

Finally, Mr. Varner testified that BellSouth is currently working with the FCC to decide on a BellSouth voluntary proposal for self-effectuating enforcement measures. These measurements would take effect on a state-by-state basis concurrent with approval for BellSouth to enter the long distance market (i.e. obtain Section 271 interLATA relief). (Varner, Tr. Vol. 1 at 407).

Upon consideration of this issue, the positions of the parties, and the evidence from the hearing, the Commission concludes that a generic docket should be opened to investigate and rule on proper performance measures to be imposed on BellSouth and potentially other ILECs. As illustrated by the performance measures admitted in this proceeding and by the positions of the parties, the Commission recognizes that the issue of performance measures has far-reaching implications in the telecommunications industry, especially relating to competition under the 1996 Act.

In the interim, the Commission finds that BellSouth's Service Quality Measurements (as contained in Hearing Exhibit No. 17) are appropriate and should be adopted as performance measures for the parties to use until the Commission can conclude a generic proceeding on performance measures. In deciding to use the BellSouth SQMs, the Commission notes that BellSouth's SQMs have undergone two years of review and formulation by the FCC and several state commissions and input from various CLECs. As such, the Commission recognizes that these performance

measurements are in place and ready to be implemented within the context of this agreement until this Commission can conclude its generic proceeding.

With regard to the performance guarantees, the Commission expressly rejects imposing any sort of "performance guarantee" or penalty provision associated with performance measurements. The Commission finds that neither the 1996 Act nor state law allows the Commission to impose penalties or fines in this arbitration. Additionally, this Commission has previously determined in the context of a proceeding resolving disputed issues for an arbitrated agreement under the 1996 Act that it lacks the jurisdiction or legislatively-granted authority to impose penalties or fines in the context of an arbitrated agreement. (*See* Order No. 97-189, at 6, March 10, 1997 in Docket No. 96-358-C (*AT&T/BellSouth Arbitration*).

The Commission also notes, with respect to ITC^DeltaCom's witness Mr. Rozycki's statements concerning so-called "anti-back sliding measures" that this matter is more appropriate for consideration under the public interest standard under Section 271 of the 1996 Act than an arbitration for an interconnection agreement. The Commission further notes that BellSouth is currently working voluntarily with the FCC to develop such measures.

Ordering Paragraph:

By this Order, the Commission directs that a generic docket be established to investigate and rule on proper performance measures to be followed by BellSouth and potentially other ILECs operating in South Carolina. In the interim until a generic docket can be concluded, the Commission directs the parties to utilize the BellSouth Service

Quality Measurements as a part of the parties' interconnection agreement for South Carolina. The Commission rejects imposing any sort of "performance guarantee" or penalty provision associated with performance measurements.

Issue 1(b)
Should BellSouth be required to waive any nonrecurring charges when it misses a due date? If so, under what circumstances and for which UNEs?

ITC^DeltaCom Position:
Yes. If BellSouth's assigned due date is missed as a result of BellSouth's error, BellSouth should waive the non-recurring charges. BellSouth seems to have agreed with this position in a brief submitted in Tennessee. Other guarantees are needed to assure the due date is not missed repeatedly. This applies to all UNEs. This issue is covered by witness Rozycki in his direct testimony pages 6 through 9.

BellSouth Position:
A contract requirement obligating BellSouth to waive nonrecurring charges when it misses a due date would constitute a penalty or liquidated damages provision which is inappropriate for arbitration under the 1996 Act (nothing in Section 251 or 252 requires penalties or liquidated damages to be either agreed upon or arbitrated). (Also See BellSouth's position on Issue 1(a)). The only remedies that should be included in an interconnection agreement between BellSouth and ITC^DeltaCom are those mutually agreed upon by the parties. BellSouth has voluntarily agreed to the waiver of nonrecurring charges when it misses the due date for the conversion (cut-over) of UNE loops. Thus, this issue is not appropriate for arbitration. (Exhibit "A" attached to this Issues Matrix contains BellSouth's proposed contract language on this issue).

Discussion:

The specific question presented by this issue is whether in cases where BellSouth misses a due date (*e.g.* fails to cut over a customer on the scheduled date for such a cut over) should BellSouth be allowed to impose nonrecurring charges for such a missed appointment and should BellSouth be permitted to impose charges when it finally meets the deadline. ITC^DeltaCom asserts that BellSouth offers similar performance guarantees to its customers in its tariffs and also argues that without performance

guarantees, BellSouth has both economic and competitive incentives to miss scheduled due dates. (Rozycki, Tr. Vol. 1 at 97) Mr. Rozycki testified that ITC^DeltaCom incurs costs for each scheduled event and further that the ITC^DeltaCom customer often incurs cost when the customer has scheduled a vendor or technician to be on site during a scheduled event. (Rozycki, Tr. Vol. 1 at 97) Mr. Rozycki contends that BellSouth has taken conflicting positions on this issue when it voluntarily offered to the FCC, in its self-effectuating enforcement measures document, to waive certain charges, but takes the position here that a mandatory waiver of nonrecurring charges, such as here for a missed due date, constitutes a penalty. (Rozycki, Tr. Vol. 1 at 98) BellSouth witness Mr. Varner testified that a requirement obligating BellSouth to waive nonrecurring charges when it misses a due date would be a penalty or liquidated damages provision. (Varner, Tr. Vol. 1 at 408) Mr. Varner also offered that this Commission has no authority to award the relief sought by ITC^DeltaCom and further offered that ITC^DeltaCom has adequate remedies available before the commission, the FCC, and the courts to address any breach of contract situation. (Varner, Tr. Vol. 1 at 407)

Upon consideration of this issue, the positions of the parties, and the evidence from the hearing, the Commission concludes that BellSouth should waive the non-recurring charges if BellSouth's assigned due date is missed as a result of BellSouth's error. This required waiver is on an interim basis until the Commission concludes a generic proceeding on performance measures. The Commission finds that this required waiver of the nonrecurring charges is not a penalty but is compensation for costs incurred when a due date is missed. Further, the Commission finds that this required waiver of

nonrecurring charges provision is consistent with similar provisions contained in BellSouth's tariffs approved by this Commission. In the generic proceeding on performance measures, the Commission will entertain proposals on "performance guarantees," penalties, and liquidated damages provisions. Therefore, this provision will be subject to the Commission's ruling in the generic proceeding on performance measures established herein.

Ordering Paragraph:

The Commission directs the parties to include a provision in the interconnection agreement that BellSouth should waive the non-recurring charges if BellSouth's assigned due date is missed as a result of BellSouth's error. This provision will be in effect on an interim basis until the Commission concludes its generic proceeding on performance measures, including proposals on "performance guarantees," penalties, and liquidated damages provisions, and issues a ruling.

Issue 2 and 2(a)(iv)

(a) What is the definition of parity?
(b) Pursuant to this definition, should BellSouth be required to provide the following and if so, under what conditions and at what rates:
(1) Operational Support Systems ("OSS"),
(2) UNEs,
(3) Access to Numbering Resources and
(4) An unbundled loop using Integrated Digital Loop Carrier ("IDLC") technology.

ITC^DeltaCom Position:

(a) Where BellSouth provides service to ITC^DeltaCom at least equal-in-quality to that provided to BellSouth or any BellSouth subsidiary. See Section 3.1 and 3.2 of ITC^DeltaCom's Proposed Interconnection Agreement.

(b)(1) Yes. At no charge pursuant to the testimony of witness Wood or, if so, at FCC compliant TELRIC rates spread equally over all end-user consumers pursuant to the testimony of witness Rozycki.

(b)(2) Yes. At FCC compliant TELRIC rates. The *Iowa Utilities Board* case upholds the FCC's Rules regarding the appropriate prices of UNEs under Section 252(d). This issue is discussed by witness Wood at pages 21 and 22.

(b)(3) Yes. At FCC compliant TELRIC rates. (*Id.*)

(b)(4) Yes. At FCC compliant TELRIC rates. (*Id.*)

BellSouth Position:

(a) BellSouth offers services to ITC^DeltaCom at parity. BellSouth has offered to include language in the interconnection agreement which defines parity as the provision of UNEs and resold services in a manner that gives an efficient CLEC a meaningful opportunity to compete. This definition is consistent with the 1996 Act and the FCC's rules regarding parity of service (47 C.F.R. §51.311 (UNEs) and 47 C.F.R. §51.603 (Resale).

(b)(1) BellSouth provides CLECs with nondiscriminatory access to its OSS through electronic and manual interfaces. (See BellSouth's position on Issue 6(a) and 6(b) for discussion of rates).

(b)(2) BellSouth provides CLECs with nondiscriminatory access to UNEs pursuant to 47 U.S.C. §251(c)(3) and 47 C.F.R. §51.311. (See BellSouth's position on Issue 6(b) for discussion of rates).

(b)(3) BellSouth is fulfilling its duties under 47 U.S.C. § 251(b)(2) and (b)(3) with respect to providing number portability and dialing parity. BellSouth should not be required to provide access to numbering resources since BellSouth has not been the North American Numbering Plan Administrator ("NANPA") since 8-14-98.

(b)(4) BellSouth provides access to all of its loops on an unbundled basis including those loops served by IDLC equipment. BellSouth will provide ITC^DeltaCom with loops that meet ITC^DeltaCom's specific transmission requirements at the appropriate rates. (See BellSouth's position on Issue 6(b) for discussion of rates).

Discussion:

Because this issue has multiple sub-parts, the Commission will address each item in order.

(a): ITC^DeltaCom contends that parity is at the heart of the Telecommunications Act because it is vital to the survival of companies like ITC^DeltaCom. (Rozycki, Tr. Vol. 1 at 71). Mr. Rozycki testified that ITC^DeltaCom

wants specific contract language in the parties' Interconnection Agreement to make clear the parties' obligations under the law. (Rozycki, Tr. Vol. 1 at 103). Mr. Rozycki references the FCC's First Report and Order released on August 8, 1996, at ¶312, indicating that ITC^DeltaCom must receive nondiscriminatory access that is "at least equal-in-quality to that which the incumbent LEC provides to itself". (Rozycki, Tr. Vol. 1 at 104 -- 105). BellSouth acknowledges that it is obligated by the 1996 Act to provide ITC^DeltaCom, and any other CLEC, with nondiscriminatory access to UNEs including its operations support systems ("OSS"). Mr. Varner testified that BellSouth complies with its obligations under the Act and the FCC's Orders and provides services to CLECs in a nondiscriminatory manner. (Varner, Tr. Vol. 1 at 408 – 409). The question remaining for the Commission is what definition of parity should be used in the parties' interconnection agreement. According to BellSouth witness Varner, ITC^DeltaCom, relying on the "at least equal-in-quality" language from the FCC's First Report and Order, has proposed language which would require BellSouth to provide access that is "equal to or greater than that which BellSouth provides to its own end-users". (Varner, Tr. Vol. 1 at 410) (emphasis added). BellSouth does not agree to such language and states that the language proposed by ITC^DeltaCom goes beyond the parity requirements of the 1996 Act and the FCC's orders. BellSouth's position is that the Commission should reject ITC^DeltaCom's request to have this Commission impose a totally unnecessary additional requirement on BellSouth that is different from the expressed language of the Act or the FCC's rules. BellSouth has acknowledged that it must provide nondiscriminatory access to UNEs, including BellSouth's OSS, in a manner that will

provide a reasonable competitor with a meaningful opportunity to compete. (*See* 47 C.F.R. Section 51.311) (UNEs) and (47 C. F. R. Section 51.603) (Resale).

Upon consideration of this issue, the positions of the parties, and the evidence of record, the Commission finds that the definition of parity as proposed by BellSouth should be used in the interconnection agreement. The definition proposed by BellSouth is consistent with the FCC's rules which require the provision of UNEs and Resale services in a manner that gives an efficient CLEC a meaningful opportunity to compete. The Commission finds that ITC^DeltaCom's proposed definition of parity goes beyond the requirements of the 1996 Act and, therefore, is not acceptable.

Ordering Paragraph:

The Commission directs the parties to include in the interconnection agreement the definition of parity as proposed by BellSouth since this definition comports with the FCC's rules which require the provision of UNEs and Resale services in a manner that gives an efficient CLEC a meaningful opportunity to compete.

(b)(1) & (2) Access to OSS and UNEs: ITC^DeltaCom contends that BellSouth should be required to provide access to its Operations Support Systems ("OSS") at parity, meaning at least equal-in-quality, to that which BellSouth provides to itself, but that BellSouth currently is not doing so for a variety of reasons. Mr. Rozycki testified that (1) BellSouth's OSS currently does not work; (2) ITC^DeltaCom did not request a separate system to be constructed for it and thus should not have to pay for it; (3) ITC^DeltaCom should not be required to pay for any system or interface that it does not use; and (4) that the prices that BellSouth is seeking to charge for its OSS are unacceptable and have no

competitive analogy. (Rozycki, Tr. Vol. at 72 - 74). BellSouth witness, Mr. Ronald Pate, testified that BellSouth is indeed providing nondiscriminatory access to its operations support systems and provided details as to the various nondiscriminatory electronic interfaces BellSouth provides to its OSS for CLECs. (Pate, Tr. Vol. 1 at 607). Mr. Pate testified that these interfaces allow CLECs to perform the functions of pre-ordering, ordering, provisioning, maintenance and repair, and billing for resale services in substantially the same time and manner as BellSouth does for itself; and, in the case of unbundled network elements, provides a reasonable competitor with a meaningful opportunity to compete. BellSouth's OSS is in compliance with the 1996 Act and the FCC's rules. (Pate, Tr. Vol. 1 at 607 – 608). Rates for OSS shall continue as established by Order No. 98-214 (June 1, 1998) in Docket No. 97-374-C; the issue of rates is more fully discussed and decided as part of Issue 6(a).

Upon consideration of this issue, the positions of the parties, and the evidence of record, the Commission finds that BellSouth is providing nondiscriminatory access, as required by the 1996 Act and the FCC's rules, to its Operations Support Systems ("OSS") through a variety of electronic and manual interfaces which have been designed specifically for CLECs such as ITC^DeltaCom. The 1996 Act requires BellSouth to provide access to OSS; it does not specify the type of access or direct that the access must be as requested by a CLEC. The Commission finds that BellSouth's interfaces allow for nondiscriminatory access should a CLEC desire to access BellSouth's OSS.

With regard to rates for OSS, the Commission finds that its previously issued Cost Orders in Docket No. 97-374-C are controlling. The Commission finds that its

previously approved UNE rates should apply to the new interconnection agreement. This arbitration proceeding is not the proper forum for challenging UNE rates previously established in Docket No. 97-374-C.

Ordering Paragraph:

As the Commission finds that BellSouth is providing nondiscriminatory access to its Operations Support Systems ("OSS") through a variety of electronic and manual interfaces which have been designed specifically for CLECs, the Commission does not require the parties to include any additional access to BellSouth's OSS in the parties' interconnection agreement. The interconnection agreement shall incorporate rates for OSS as established by Order No. 98-214 (June 1, 1998) in Docket No. 97-374-C.

(b)(3): ITC^DeltaCom contends that it needs access to numbering resources. BellSouth contends that it should not be required to provide any additional access to numbering resources to ITC^DeltaCom because BellSouth is no longer the North American Numbering Plan Administrator ("NANPA"). BellSouth witness, Mr. Keith Milner, testified that the transition of responsibility from BellSouth to the new NANPA, Lockheed-Martin, took place over a year ago, on August 14, 1998. (Milner, Tr. Vol. 1 at 657).

Upon consideration of this issue, the positions of the parties, and the evidence of record, the Commission finds that BellSouth is not required to provide any further access to numbering resources as ITC^DeltaCom requests since BellSouth is no longer the North American Numbering Plan Administrator. The Commission finds that BellSouth is

only required to fulfill its duties under Section 251(b)(2) and (b)(3) under the 1996 Act with respect to providing number portability and dialing parity.

Ordering Paragraph:

BellSouth is not required to provide additional access to numbering resources provided by the North American Numbering Plan Administrator ("NANPA").

(b)(4): ITC^DeltaCom contends that BellSouth should provide it with an unbundled loop using Integrated Digital Loop Carrier ("IDLC") technology. ITC^DeltaCom witness, Mr. Stephen Moses, testified as to a number of reasons that he believes BellSouth should be required to provide IDLC loops rather than long copper loops or loops using the Universal Digital Loop Carrier ("UDLC") technology. (Moses, Tr. Vol. 1 at 127 - 130). In general, Mr. Moses contends that BellSouth does not make IDLC loops available, but instead provides the UNE loop on different (non-IDLC) facilities. (Moses, Tr. Vol. 1 at 138).

BellSouth's witness, Mr. Keith Milner, testified that BellSouth provides access to all of its loops on an unbundled basis, including those loops that are served by IDLC technology, by any means that are technically feasible. Mr. Milner further testified, however, that IDLC equipment allows the "integration" of loop facilities with switch facilities by eliminating equipment in the central office referred to as Central Office Terminals ("COTs"). Mr. Milner further explained that if a CLEC wants to serve an end-user customer over the CLEC's own switch and that end-user customer was previously served by BellSouth over IDLC equipment, then the loop can no longer be integrated with the BellSouth switch. Mr. Milner also further explained that to the extent that

ITC^DeltaCom contends that IDLC loops are somehow engineered to provide a better level of service than non-IDLC loops that this is simply an incorrect assumption. BellSouth designs its network to meet particular transmission parameters for particular grades of services. (Milner, Tr. Vol. 1 at 658 - 659). Mr. Milner further testified that the real issue between the parties is whether ITC^DeltaCom has requested specific transmission parameters for a given unbundled loop and whether BellSouth has agreed to provide such an arrangement. The bona fide request ("BFR") process is available to ITC^DeltaCom to request specific transmission parameters for any UNE loops that it may desire to order. Mr. Milner testified that he is unaware of any such BFR having been issued by ITC^DeltaCom; however, should ITC^DeltaCom do so, Mr. Milner testified that BellSouth will investigate the technical feasibility of ITC^DeltaCom's request and, if technically feasible, BellSouth will comply with it. (Milner, Tr. Vol. 1 at 659 - 662).

Upon consideration of this issue, the positions of the parties, and the evidence of record, the Commission finds BellSouth is providing nondiscriminatory access to all of its loops on an unbundled basis, including loops served by integrated digital loop carrier ("IDLC") technology by any means that is technically feasible. The Commission finds that BellSouth provides access to all of its loops on an unbundled basis, including those loops served by IDLC technology. Further, the Commission finds that ITC^DeltaCom may and should utilize the bona fide request ("BFR") process to request specific transmission parameters for any UNE loops that it wants to order. The record establishes

after receipt of a BFR that BellSouth will investigate the technical feasibility of the request and, if technically feasible, will comply with the request.

With regard to rates for unbundled loops, the Commission finds that its previously issued Cost Orders in Docket No. 97-374-C are controlling. The Commission finds that its previously approved UNE rates should apply to the new interconnection agreement. This arbitration proceeding is not the proper forum for challenging UNE rates previously established in Docket No. 97-374-C.

Ordering Paragraph:

As the Commission finds that BellSouth is providing nondiscriminatory access to its unbundled loops, including loops served by IDLC technology, the Commission does not require the parties to include any additional access to unbundled loops. The interconnection agreement shall incorporate rates for unbundled loops as established by Order No. 98-214 (June 1, 1998) in Docket No. 97-374-C.

Issue 2(a)(i) [Question 2]
Should BellSouth be required to provide a download of the Regional Street Address Guide (RSAG)? If so, how?

ITC^DeltaCom Position:
[Question 2]: Yes. This is required by Section 251(c)(3) of the Act and supported by the First Report and Order, §525. This issue is close to resolution and will be incorporated into the interconnection agreement. However, BellSouth must provide the rates, terms and conditions for the RSAG download. BellSouth should recover costs associated with this requirement only one time. The cost issue may remain outstanding.

BellSouth Position:
[Question 2]: BellSouth currently makes the Regional Street Address Guide ("RSAG") available on a real time basis electronically through the Local Exchange Navigation System ("LENS") and the TAG pre-ordering interfaces. This access includes updates to RSAG. Thus, BellSouth is providing nondiscriminatory access to its OSS in a manner

that allows ITC^DeltaCom and other CLECs to access the RSAG, even though ITC^DeltaCom may prefer a different method of access. Appropriate cost based rates should apply for the initial and subsequent downloads of this data.

Discussion:

ITC^DeltaCom has requested that BellSouth provide it with an electronic download of the Regional Street Address Guide ("RSAG") database, which contains address and facility availability information. ITC^DeltaCom witness, Mr. Michael Thomas, contends that ITC^DeltaCom needs this information to incorporate it into ITC^DeltaCom's "back office systems" to check the validity of the customer's address, just as BellSouth's systems use the RSAG database to check BellSouth's orders. (Thomas, Tr. Vol. 1 at 189 - 190). Mr. Don Wood, on behalf of ITC^DeltaCom, testified that ITC^DeltaCom should receive the RSAG download on a daily basis at no charge. (Wood, Tr. Vol. 1 at 338). BellSouth witness, Mr. Ronald Pate, testified that BellSouth's electronic interfaces provide CLECs with access to BellSouth's OSS for the required functions and informational databases, including the RSAG database, in substantially the same time and manner that BellSouth provides to its retail service representatives (Pate, Tr. Vol. 1 at 617). BellSouth is therefore in compliance with the 1996 Act and the FCC's rules. Mr. Pate further testified that, although it is not required to provide a download of the RSAG, BellSouth has made a proposal to ITC^DeltaCom to provide such a download at rates and conditions to be negotiated. Regardless, Mr. Pate testified that BellSouth currently provides to all CLECs, including ITC^DeltaCom, nondiscriminatory access to the RSAG database on a real time basis through the Local Exchange Navigation System ("LENS") and the Telecommunications Access Gateway ("TAG") pre-ordering

interfaces. Because the RSAG database is updated nightly, CLECs have real-time access by means of these electronic interfaces to an up-to-date database. Mr. Pate testified that if ITC^DeltaCom were to integrate the pre-ordering functionality of the TAG interface with the Electronic Data Interexchange ("EDI") ordering interface, it would eliminate the need to re-key or re-enter certain information obtained during pre-ordering from the customer service record ("CSR") and/or the RSAG database into the EDI or TAG ordering interface. (Pate, Tr. Vol. 1 at 620). At the Hearing, Mr. Thomas, on behalf of ITC^DeltaCom, testified that ITC^DeltaCom plans to implement TAG in the near future. (Tr. Vol. 1 at 230 and Tr. Vol. 2 at 69 - 70).

Upon consideration of this issue, the positions of the parties, and the evidence of record, the Commission finds that BellSouth currently makes available nondiscriminatory access to the Regional Street Address Guide ("RSAG") database on a real-time basis, electronically through the Local Exchange Navigation System ("LENS") and the Telecommunications Access Gateway ("TAG") pre-ordering interfaces. The Commission finds that this access is reasonable and nondiscriminatory under the 1996 Act.

Ordering Paragraph:

As the Commission finds that BellSouth currently makes available nondiscriminatory access to the Regional Street Address Guide ("RSAG") database on a real-time basis, the Commission will not require any additional or alternative method to obtain the RSAG in the interconnection agreement. If ITC^DeltaCom desires to utilize an

alternative method to obtain a download of the RSAG database, it must negotiate on its own (outside of this arbitration) with BellSouth toward that end.

Issue 2(a)(ii)
Should BellSouth be required to provide changes to its business rules and guidelines regarding resale and UNEs at least 45 days in advance of such changes being implemented? If so, how?

ITC^DeltaCom Position:
Yes. ITC^DeltaCom must be given the opportunity to make adjustments for changes to BellSouth's rules and guidelines. See Section 251(c)(3) of the Act. Because such guidelines are developed by BellSouth, by definition BellSouth will have adequate notice. 45 days is adequate notice. BellSouth should e-mail changes to ITC^DeltaCom. In an emergency, less notice would be acceptable.

BellSouth Position:
BellSouth posts changes to its business rules on the BellSouth Interconnection Web Page which provides fair and reasonable notice to all CLECs, including ITC^DeltaCom. BellSouth uses its best efforts to provide thirty (30) days advance notice of any such changes, which strikes a reasonable balance between BellSouth's need for flexibility to modify its processes and the CLECs' need to have advance notice of such modifications. Individual notices to ITC^DeltaCom or other CLECs (whether by e-mail, facsimile transmission or U.S. Mail) would be an additional administrative expense and would have the potential for discriminatory treatment to occur in the event some, but not all, CLECs received such individual notice or if receipt of the notice varied in time.

Discussion:

ITC^DeltaCom witness, Mr. Michael Thomas, testified that ITC^DeltaCom needs at least 45 days advanced notice, by e-mail or other electronic means, of changes to BellSouth's business rules for CLECs that will affect its systems and business rules. Mr. Thomas testified that this advanced time is necessary in order to receive training or to make the necessary changes to ITC^DeltaCom's systems. Mr. Thomas acknowledged that BellSouth provides carrier notifications on its website on a weekly basis. (Thomas, Tr. Vol. 1 at 192 - 193).

BellSouth witness, Mr. Alphonso Varner, testified that BellSouth agrees that it should provide advanced notice of changes to its business rules and ordering guidelines, but there should not be a requirement that such notice be given in a specified number of days in advance. Today, BellSouth posts changes to its business rules and ordering guidelines regarding resale and UNEs on an easily accessible Internet website. As a general rule, BellSouth makes a good faith effort to post all OSS-related notifications at lease thirty (30) days prior to the implementation of the change or rule. Mr. Varner noted, however, that there may be circumstances in which the thirty-day timeframe is simply not possible. Mr. Varner testified that the current process is both appropriate and practical because it strikes a proper balance between BellSouth's flexibility to modify its processes and the CLECs need to have advanced notice of such modifications. (Varner, Tr. Vol. . at 411 - 412). Providing individual notices to ITC^DeltaCom or to other CLECs would be an additional administrative expense. Additionally, this method of notice could potentially cause discriminatory treatment if some, but not all, CLECs receive such individual notices or if receipt of such notices varied in time between CLECs.

Upon consideration of this issue, the positions of the parties, and the evidence of record, the Commission finds BellSouth's good faith effort to provide 30 days notice is a good starting point for the notice requirement. The 45 day advance notice requested by ITC^DeltaCom strikes the Commission as too lengthy a time frame. The Commission concludes that 30 days notice strikes a reasonable balance between BellSouth's need for flexibility to modify its processes and systems and the CLECs need to have advanced

notice of such modifications. With regard to the manner of notification, the Commission agrees with BellSouth's concern that requiring individual notices would invite complaints of discriminatory treatment. Additionally, the Commission does not believe that the benefit of individual notices would be justified in terms of administrative expenses. Therefore, the Commission finds that BellSouth's method of notification of changes to business rules or ordering guidelines is reasonable and appropriate and should be continued without modification.

Ordering Paragraph:

The Commission finds that BellSouth should provide at least thirty (30) days advance notice of any changes to its business rules or ordering guidelines and directs the parties to include language in the interconnection agreement to this effect.

Issue 2(b)(ii)
Until the Commission makes a decision regarding UNEs and UNE combinations, should BellSouth be required to continue providing those UNEs and combinations that it is currently providing to ITC^DeltaCom under the interconnection agreement previously approved?

ITC^DeltaCom Position:

Yes. The current agreement was approved under Section 252 by the authority as compliant with the Act. It remains compliant and should continue until the SCPSC orders otherwise with regard to pricing UNE combinations. ITC^DeltaCom's access should continue as previously approved. All interconnection agreements should be filed with the SCPSC under Section 252 of the Act. Section 252(c)(1) requires approval of "any" interconnection agreement.

BellSouth Position:

BellSouth will continue to comply with its obligations under the 1996 Act and applicable FCC rules. BellSouth also will continue to provide any individual UNE currently offered until the FCC completes its Rule 51.319 proceedings consistent with the U.S. Supreme Court's decision in the *Iowa Utilities Board* case. The 1996 Act does not require BellSouth to combine elements for CLECs, and the FCC's rules (47 C.F.R.

§§51.315(c) – (f)) which purported to impose such an obligation on incumbent LECs such as BellSouth were vacated. Thus, this issue is not appropriate for arbitration. BellSouth is, however, willing to negotiate a voluntary commercial agreement with ITC^DeltaCom to perform certain services or functions that are not subject to the requirements of the 1996 Act.

Discussion:

ITC^DeltaCom's position is that the Commission has the authority it needs to require the parties to maintain the status quo under its existing interconnection agreement with BellSouth until the FCC issues its final decision on UNEs and any UNE combinations. (Moses, Tr. Vol. 1 at 124 - 125). Mr. Wood, on behalf of ITC^DeltaCom, testified that BellSouth must provide combinations of UNEs to CLECs, including ITC^DeltaCom. (Wood, Tr. Vol. 1 at 365 - 369). BellSouth's position is that it will continue to comply with its obligations under the 1996 Act and applicable FCC rules.

Mr. Varner testified that BellSouth made a voluntary commitment to the FCC that until Rule 51.319 is resolved, BellSouth will continue to provide any individual UNE currently offered with the condition that the network elements offered may change once the FCC completes its proceeding and resolves Rule 51.319. (Varner, Tr. Vol. 1 at 414) To the extent that ITC^DeltaCom wants BellSouth to provide UNE combinations at the sum of the individual elements, BellSouth is not required to combine network elements on behalf of ITC^DeltaCom or other CLECs. The FCC's rules (51.315(c) through 51.315(f)) that attempted to impose a requirement on incumbent LECs to combine UNEs for CLECs were vacated by the United States Court of Appeals for the Eighth Circuit in the *Iowa Utilities Board* case and because no party challenged that ruling before the U.S. Supreme Court, those rules are not in effect today. Thus, because those rules are not in

effect, BellSouth is not required to combine network elements on behalf of another carrier. (Varner, Tr. Vol. 1 at 415).

Finally, the Commission is aware that after the Hearing had been completed in this proceeding, the FCC, on September 15, 1999, issued a press release in the Rule 319 proceeding. Although there is no written order yet, it is clear that there will be further work on this rule by the FCC.

Upon consideration of this issue, the positions of the parties, and the evidence of record, the Commission finds that BellSouth should continue to provide the individual UNEs it is currently offering until further issuance of orders or rulings from the FCC regarding UNEs. This position is supported by BellSouth's voluntary commitment to the FCC that it will continue to offer as a UNE any individual network element currently offered. Further with regard to combinations, the Commission finds that BellSouth should continue to provide to ITC^DeltaCom those combinations of UNEs currently being provided today at the rates provided in Order No. 98-214 (June 1, 1998) in Docket No. 97-374-C. However, no further combinations shall be required until further rulings and orders are issued from the FCC or the courts. The ruling on this issue does not apply to "extended loops" and "loop/port" combinations which are decided in a separate issue.

Ordering Paragraph:

The parties shall include language in the interconnection agreement that BellSouth will provide the individual UNEs it is currently offering until further issuance of orders or rulings from the FCC regarding UNEs. Further with regard to combinations, language shall be included in the interconnection agreement that BellSouth will continue

to provide to ITC^DeltaCom those combinations of UNEs currently being provided today at the rates provided in Order No. 98-214 (June 1, 1998) in Docket No. 97-374-C but that no further combinations shall be required until further rulings and orders are issued from the FCC or the courts. The ruling on this issue does not apply to "extended loops" and "loop/port" combinations which are decided in a separate issue.

Issue 2(b)(iii)

(a) Should BellSouth be required to provide to ITC^DeltaCom extended loops and the loop/port combination?

(b) If so, at what rates?

ITC^DeltaCom Position:

(a) Yes. ITC^DeltaCom currently serves customers through extended loops provided by BellSouth. The Act as interpreted in *Iowa Utilities Board* requires BellSouth to provide a loop/port combination. Until the FCC indicates otherwise, all UNE combinations are available.

(b) Rates should be FCC compliant at TELRIC rates. See *First Report and Order*, CC No. Docket 96-98.

BellSouth Position:

(a) No. First, neither loops, ports, nor transport have been defined by the FCC as unbundled network elements that BellSouth must provide. Second, even if loops, ports, and transport are defined as UNEs, BellSouth is only obligated to provide combinations of those elements where they are currently combined in BellSouth's network. BellSouth is not obligated under the 1996 Act or the FCC's rules to combine network elements on behalf of CLECs such as ITC^DeltaCom. Thus, there is no requirement to provide an "extended loop" (e.g., UNE loop and UNE dedicated transport) or a "loop/port" (e.g., UNE loop and UNE switch port) combination. Further, there is no requirement for BellSouth to combine UNEs with tariffed services such as a loop combined with access transport (See also BellSouth's Position on Issue 2(b)(ii)).

(b) Because BellSouth is not required to combine network elements for CLECs under the 1996 Act, the issue of applicable rates for such network combinations is not properly the subject of arbitration. To the extent the Commission concludes otherwise or determines to establish rates for network elements that are currently combined in BellSouth's network, the Commission should do so in the context of a generic proceeding rather than an arbitration involving one CLEC. Thus, this issue is not appropriate for arbitration. (See also BellSouth's position on Issue 2(b)(ii)).

Discussion:

ITC^DeltaCom takes the position that its current interconnection agreement requires BellSouth to provide what ITC^DeltaCom calls a version of an "extended loop." Mr. Moses, on behalf of ITC^DeltaCom, testified that the current interconnection agreement at ¶ IV B14 requires the parties to attempt in good faith to mutually devise and implement a means to extend the unbundled loop sufficient to enable ITC^DeltaCom to use a collocation arrangement at one BellSouth location per LATA . . .." (Moses, Tr. Vol. 1 at 131 and Moses Tr. Vol. 1 at 159 - 160). Mr. Moses contends that this revision requires BellSouth to provide extended loops. Mr. Moses also testified that BellSouth has provided ITC^DeltaCom with more than 2,500 extended loops of which more than 1,000 are in South Carolina. (Moses, Tr. Vol. 1 at 160). Mr. Wood, on behalf of ITC^DeltaCom, testified that BellSouth is required to provide extended loops as well as a loop/port combination. Mr. Wood contends that, until the FCC indicates otherwise, all UNE combinations must be made available. (Wood, Tr. Vol. 1 at 366 - 369). Mr. Wood also contended that these UNE combinations were "often the only way to provide service to rural customers." (Wood, Tr. Vol. 2 at 106).

BellSouth's position is that although ITC^DeltaCom has requested an "extended loop," which is commonly known as a local loop combined with dedicated transport, there is no question that an extended loop constitutes a combination of a UNE local loop and a UNE dedicated transport. BellSouth is not required to combine individual UNEs such as the loop and dedicated transport under either the 1996 Act or any FCC rules in force today. Further, until the FCC issues its final, non-appealable, decision regarding

Rule 51.319 as to the list of UNEs that ILECs must make available to CLECs, this Commission should not attempt to impose such a requirement in the parties' interconnection agreement. Mr. Varner further testified that, with respect to ITC^DeltaCom's arguments about BellSouth having provided to ITC^DeltaCom a so-called extended loop consisting of a UNE loop combined with BellSouth's tariffed special access service, BellSouth did so by mistake and, more importantly, BellSouth has taken steps to correct it. Mr. Varner testified that the prior ITC^DeltaCom/BellSouth interconnection agreement, contrary to Mr. Moses' testimony, does not require the provision of such combinations. In fact, in order to bring these service arrangements into compliance, ITC^DeltaCom and BellSouth reached a mutual understanding whereby ITC^DeltaCom submitted over 50 additional collocation applications in May, 1999. As soon as these collocation arrangements are completed, BellSouth's provisioning of these service arrangements will be curtailed and these unique combinations will be converted. (Varner, Tr. Vol. 1 at 418 - 421).

According to Mr. Varner, there is no requirement in the 1996 Act or the FCC's rules for BellSouth to combine network elements on behalf of CLECs such as ITC^DeltaCom, nor is there any requirement for BellSouth to combine UNEs with tariffed services such as a loop combined with special access transport. BellSouth's position is that it is not required to provide loop/port combinations to ITC^DeltaCom and that such a requirement will be poor public policy, because the combination of the local loop and the switch port would replicate local exchange service and create an opportunity for price arbitrage. (Varner, Tr. Vol. 1 at 418). The FCC's rules 51.315(c) through

51.315(f), which required ILECs to combine UNEs for CLECs, remain vacated today. Although FCC rule 51.315(b) which prohibits ILECs from separating currently combined UNEs is still in effect, until the FCC finalizes its rule 51.319 proceeding, there is no required set of UNEs that must be available, either individually, or on a currently combined basis. Nonetheless, Mr. Varner testified that BellSouth has agreed, and indeed committed to the FCC, to continue offering every individual UNE currently offered until Rule 51.319 is resolved. (Varner, Tr. Vol. 1 at 418 - 420). Mr. Varner also testified that BellSouth had agreed to provision the existing "extended loop" arrangements until ITC^DeltaCom made collocation arrangements to replace the existing "extended loops." (Varner, Tr. 2 at 97)

With respect to ITC^DeltaCom"s contention that it needs UNE combinations to provide service to rural areas, first, there is no evidence that ITC^DeltaCom is making any serious attempt to serve rural customers today. Second, as Mr. Varner testified, "[r]esale is the way [that Congress set up as an alternative means to serve customers] for ... [ITC^DeltaCom] to go to the rural areas when they have a relatively few customers to use as a temporary measure until they build a market and decide to put in a switch or whatever other infrastructure they [want] to put in. ... Their inability to have [UNE] combinations doesn't preclude them from serving these small volume [i.e. rural] situations." (Varner, Tr. Vol. 2 at 239-240). Finally, the Commission is aware of the FCC's announcement, on September 15, 1999, regarding its decisions in the Rule 319 proceeding. Specifically, in its press release, the FCC indicated that it will initiate further proceedings on the question of the ability of carriers to use unbundled network elements

as a substitute for the incumbent LEC's special access services. The FCC also issued a Further Notice of Proposed Rulemaking on this issue, and, therefore, this issue is still open.

Based upon this issue, the positions of the parties, and the evidence of record, the Commission finds that the FCC Rules presently in effect do not require BellSouth to provide combinations of unbundled network elements to ITC^DeltaCom in the form of the so called "extended loop" consisting of a UNE loop combined with UNE dedicated transport. The "extended loop" which ITC^DeltaCom has in place consists of a UNE loop combined with BellSouth's tariffed special access transport service and was provided to ITC^DeltaCom in error under the prior interconnection agreement. However, as BellSouth admitted providing ITC^DeltaCom with numerous "extended loops" in error and as ITC^DeltaCom is presently serving customers over those "extended loops," the Commission finds that BellSouth should continue to provide the existing "extended loops" to ITC^DeltaCom at existing rates until ITC^DeltaCom can arrange to convert these "extended loops" to collocation arrangements. The Commission's decision is supported by BellSouth's agreement to continue to provision these existing "extended loop" arrangements until such time as ITC^DeltaCom obtains collocation arrangements. Further, the Commission concludes that no additional "extended loops," consisting of the UNE loop and UNE dedicated transport, should be required to be provided until further rulings of the FCC or the courts require such provision. Additionally, BellSouth is not required to provide ITC^DeltaCom with the loop/port combination of UNEs. Neither the 1996 Act nor the FCC's rules as presently in effect require incumbent LECs to combine

network elements on behalf of CLECs such as ITC^DeltaCom. To the extent that the FCC resolves any of these issues in its Rule 319 proceeding, the Commission will revisit these issues upon the request by a party.

Ordering Paragraph:

BellSouth shall continue to provide ITC^DeltaCom with the existing "extended loops" at existing rates. However, BellSouth is not required to provide additional "extended loops" under the new interconnection agreement. Nor is BellSouth required to provide ITC^DeltaCom with the "loop/port" combination of UNEs under the new interconnection agreement.

Issue 2(c)(i)
Should BellSouth be required to provide NXX testing functionality to ITC^DeltaCom? If so, how and at what rate?

ITC^DeltaCom Position:
Yes. BellSouth has this ability to provide service to its own customers. Parity requires it to provide the service to ITC^DeltaCom. See Section 251(c)(3) of the Act. It should be provided at FCC compliant TELRIC Rates. Use of an FX is cost prohibitive and does not represent a methodology of parity with BellSouth. See testimony of witness Moses at 26.

BellSouth Position:
BellSouth is not required to provide NXX testing functionality to ITC^DeltaCom. Nonetheless, BellSouth has offered to provide an NXX testing option to ITC^DeltaCom that is equivalent to the means by which BellSouth carries out NXX testing for itself (which involves the use of a foreign exchange ("FX" line). ITC^DeltaCom is unwilling to pay for the FX line to accomplish its testing.

Discussion:

ITC^DeltaCom's witness Moses described problems encountered by ITC^DeltaCom with BellSouth incorrectly loading NXX codes. (Moses, Tr. Vol. 2 at 12 –13) ITC^DeltaCom has requested a method which allows BellSouth to provide NXX

testing capabilities to CLECs at a reasonable cost based price. ITC^DeltaCom's proposal is to order remote call forwarding at cost based rates, rather than tariffed rates. ITC^DeltaCom has tested this method by purchasing from the GSST (General Subscriber Service Tariff) at full retail price remote call forwarding for the sole purpose of testing NXX codes loaded by BellSouth. (Moses, Tr. Vol. 2 at 113 –115) ITC^DeltaCom recommends that BellSouth provide remote call forwarding functionality at the rate that BellSouth provided remote call forwarding for interim number portability which is $2.73 per month per call forward number. Additionally, ITC^DeltaCom requests that it be able to purchase the software function for Remote Call Forward with Remote Access without having to buy a business line as specified in the GSST. (Moses, Tr. Vol. 2 at 114 -115)

BellSouth's position is that it has met its obligations under the 1996 Act and the FCC's rules by offering the foreign exchange line option to ITC^DeltaCom. This is the same means by which BellSouth accomplishes NXX testing for its own purposes. Mr. Keith Milner, on behalf of BellSouth, testified that at least as early as May 1998, BellSouth advised ITC^DeltaCom that it could accomplish the desired NXX testing by installing a foreign exchange line to the BellSouth offices in which ITC^DeltaCom desired to conduct test calls. Mr. Milner testified that this suggestion was based on the fact that BellSouth itself utilizes FX lines to test its own switch provisioning. Mr. Milner testified that in May, 1998, BellSouth had implemented an NXX activation Single Point of Contact ("SPOC"). Among other functions, the NXX SPOC coordinates the activation of CLEC NXX codes within BellSouth and provides a trouble-reporting center for CLEC

code activation. (Milner, Tr. Vol. 1 at 666 - 668). Mr. Milner testified that, since it began its operation, the NXX SPOC has tracked the provisioning and testing of approximately 1,700 NXXs for facility-based CLECs and Independent Telephone Companies and has been involved in the resolution of 121 customer related routing troubles. (Milner, Tr. Vol. 1 at 668).

Upon consideration of the issue, the positions of the parties, and the record from the hearing, the Commission concludes that ITC^DeltaCom should be provided with NXX testing capabilities that are both economically and technically viable. BellSouth has testified that FX lines are the method by which BellSouth tests its own switch provisioning and has suggested this method to ITC^DeltaCom. ITC^DeltaCom has suggested that the FX line is not the most efficient available mechanism to test NXXs and certainly not the most economical either. ITC^DeltaCom has investigated using remote call forwarding by purchasing remote call forwarding from the GSST at full retail rates. The Commission concludes that BellSouth should provide ITC^DeltaCom with a free FX line for NXX functional testing until such time as BellSouth can provide ITC^DeltaCom with remote call forwarding at TELRIC rates by which ITC^DeltaCom can accomplish its NXX testing.

Ordering Paragraph:

The Commission directs BellSouth to provide ITC^DeltaCom with a free FX line for NXX functional testing until such time as remote call forwarding is available at TELRIC rates.

Issue 2(c)(ii)
What should be the installation interval for the following loop cutovers:
(a) Single
(b) Multiple

ITC^DeltaCom Position:
(a) Per the existing interconnection agreement, the standard time expected from disconnection of a live exchange service to the connection of the UNE to ITC^DeltaCom collocation arrangement is 15 minutes.
(b) Per the existing interconnection agreement, the standard time expected from disconnection of a live exchange service to the connection of the UNE to the ITC^DeltaCom collocation arrangement is 15 minutes.

BellSouth Position:
(a) BellSouth has proposed a loop cutover installation interval time of fifteen (15) minutes for a single circuit conversion.
(b) With respect to multiple loop cutovers or circuit conversions, BellSouth has proposed to use fifteen (15) minutes as the maximum interval time for one loop with multiple loop cutovers being accomplished in increments of time per loop or circuit conversion of less than fifteen (15) minutes. The loop cutover process is a multiple step process that requires a great deal of mutual cooperation and coordination between BellSouth and the CLEC. Thus, it is appropriate for different installation intervals to be established based upon the number of loops to be cutover to the CLEC.

Discussion:

ITC^DeltaCom contends that BellSouth is obligated to provide all loop conversions in an interval time of fifteen minutes. (Moses, Tr. Vol. 2 at 118). ITC^DeltaCom contends that the multiloop cutover should be done one loop at a time, with each loop taking less than 15 minutes. (Moses, Tr. Vol. 2 at 119). BellSouth witness Milner testified that the loop cutover process is a multi-step process that requires a great deal of mutual cooperation and coordination between BellSouth and the CLEC. Mr. Milner's testimony set forth the thirteen steps involved in a single loop cutover. According to BellSouth, fifteen minutes is the target time interval for a single loop cutover with multiple loop cutovers done in increments of 15 minutes. In other words,

BellSouth will commit to intervals of sixty minutes for up to ten loops in a group and for 120 minutes for orders up to thirty loops. (Milner, Tr. Vol. 2 at 120). BellSouth also testified that it takes measures such as doing cutovers after hours to minimize customer disruption (Milner, Tr. Vol. 2 at 120).

BellSouth also pointed out that it is not in total control of the loop cutover process and, thus, not in total control of the time intervals. If a CLEC fails to perform a function in a timely fashion, the delay directly impacts the overall cutover time. (Milner, Tr. Vol. 2 at 121). Therefore, any measurement of average loop cutover times will reflect the efficiency and skill level of both BellSouth and the CLEC. Thus, while BellSouth endeavors to complete loop cutovers in as timely and efficient a manner as possible, BellSouth contends that it cannot be entirely responsible for meeting the stated interval given the heavy involvement of the CLEC in the process.

Upon consideration of this issue, the positions of the parties, and the evidence of record, the Commission finds that the loop cutover installation time for a single loop conversion should be 15 minutes. Both parties testified that 15 minutes was an appropriate time interval for a single loop conversion. With respect to multiple loop cutovers, the Commission finds BellSouth's proposed interval times of sixty minutes for up to ten loops in a group and of 120 minutes for orders up to thirty loops in a group reasonable and appropriate. These intervals for multiple cutovers recognize that efficiencies are gained through the provisioning of multiple loops. It is unreasonable to expect BellSouth to provision multiple loop cutovers in the same time interval as for a single loop cutover (i.e. 15 minutes). Moreover, the Commission recognizes the greater

interval for multiple loop cutovers takes into consideration the fact that delays in the cutover process may arise from sources outside BellSouth's control. Further, the Commission encourages BellSouth to minimize customer outage time during loop cutovers.

Ordering Paragraph:

The parties shall include provisions in the interconnection agreement that require the loop cutover installation time for a single loop conversion to be completed within 15 minutes. Further for multiple cutovers, the interconnection agreement shall require interval times of sixty minutes for up to ten loops in a group and of 120 minutes for orders up to thirty loops in a group.

Issue 2(c)(iii)
Should SL1 orders without order coordination be specified by BellSouth with either an a.m. or p.m. designation? [NOTE: ITC^DeltaCom believes that this issue should be worded as follows: BellSouth has offered order coordination; should SL1 orders without order coordination be specified by BellSouth with an a.m. or p.m. designation?]

ITC^DeltaCom Position:
Yes. BellSouth has this ability for its own customers. Parity requires it do so for ITC^DeltaCom. ITC^DeltaCom must be at parity with BellSouth—not BellSouth's retail customers. See Section 251(c)(3) for fee parity requirements of the Act. *Also See First Report and Order,* cc Docket 96-98 at ¶ 525.

BellSouth Position:
BellSouth is willing to continue offering order coordination service with SL1 orders. BellSouth will agree to accept a customer's request for an A.M. or P.M. designation when access to the customer's premises is required. In those instances where access to the customer's premises is not required, or if access is required but the customer is indifferent as to the time of day, BellSouth should not be required to designate A.M. or P.M. installation. This process is comparable to the scheduling BellSouth offers to its retail customers, thus placing ITC^DeltaCom at parity with BellSouth. (Exhibit "A"

attached to this Issues Matrix contains BellSouth's proposed contract language on this issue.)

Discussion:

ITC^DeltaCom wants every SL1 order without order coordination to have an A.M. or P.M. designation. (Moses, Tr. Vol. 2 at 124). ITC^DeltaCom contends the designation is necessary so that ITC^DeltaCom can schedule its technician. (Moses, Tr. Vol. 2 at 125). BellSouth testified that it understands ITC^DeltaCom's desire to make switching to ITC^DeltaCom service easy for its customers and, thus, is willing to accept a customer's request for an A.M. or P.M. designation in those cases in which access to the customer's premises is required and the customer expresses a preference as to A.M. or P.M. appointment. (Varner, Tr. Vol. 2 at 123). In instances in which access to the customer's premises is not required, or access is required but the customer is indifferent as to A.M. or P.M., BellSouth argues it should not be obligated to make an A.M. or P.M. designation. (Varner, Tr. Vol. 2 at 123). In these instances, according to BellSouth, no end user customer need is met by the A.M. or P.M. designation. The designation will, however, require BellSouth to tie up resources and incur additional costs to meet scheduling requirements for customers who are indifferent as to when their service is actually turned on. BellSouth witness Varner testified that the treatment BellSouth is proposing for ITC^DeltaCom's customers is comparable to the scheduling BellSouth offers its retail customers and thus, BellSouth's proposal satisfies the parity and nondiscrimination requirements of the Act. (Varner, Tr. Vol. 2 at 123).

Upon consideration of this issue, the positions of the parties, and the evidence of record, the Commission finds that BellSouth should only be required to utilize an A.M. or

P.M. designation in situations in which access to the customer's premises is required and the customer expresses a preference as to A.M. or P.M. BellSouth will then be providing ITC^DeltaCom A.M. or P.M. designation under the same circumstances as it does for providing service to its own end-user customers.

Ordering Paragraph:

BellSouth is only required to designate A.M. or P.M. designation in situations in which access to the customer's premises is required and the customer expresses a preference as to A.M. or P.M.

Issue 2(c)(iv)
Should the party responsible for delaying a cutover also be responsible for the other party's reasonable labor costs? If so, at what cost?

ITC^DeltaCom Position:
Yes. The rate depends upon the labor required or caused. It should be determined on an individual case basis. This policy was previously approved by the SCPSC in the existing interconnection agreement. It was compliant with the Act then, and it remains so.

BellSouth Position:
ITC^DeltaCom's proposal is nothing more than a penalty, liquidated damages or financial "guarantee" provision which is not appropriate for arbitration. (See BellSouth's position on Issue 1(b)). In the event ITC^DeltaCom experiences problems as a result of loop cutover delays, ITC^DeltaCom has adequate remedies under the law. Moreover, to track costs and assess blame for each instance of delay would be unduly burdensome and expensive, particularly when it is unclear which party is at fault.

Discussion:

ITC^DeltaCom contends that if one party is responsible for delaying loop cutover, the responsible party must pay the other's labor costs. ITC^DeltaCom contends that the payment of labor costs will work as an incentive to BellSouth. (Moses, Tr. Vol. 2 at 127).

ITC^DeltaCom also offers that a similar provision is in the interconnection agreement under which the parties have operated for the past two years, and ITC^DeltaCom recommends that the Commission order the continuation of the provision in the interconnection agreement which is the subject of the instant arbitration proceeding. (Hyde, adopted by Moses, Tr. Vol. 1 at 174 -175) BellSouth contends that because ITC^DeltaCom's proposal constitutes either a penalty, liquidated damages clause, or a financial "guarantee", the issue should not be arbitrated. According to BellSouth, neither Section 251 nor 252 of the Act obligate BellSouth to pay penalties for alleged breaches of the agreement. (Varner, Tr. Vol. 2 at 128). Moreover, the Commission "lacks the jurisdiction to impose penalties or fines" in the context of an arbitration proceeding. (*See* Order No. 97-189, Docket No. 96-358-C, 3/10/97, at 6). Even if the Commission could award penalties, the incorporation of ITC^DeltaCom's proposal into the agreement is unnecessary. South Carolina law and Commission procedures are available and adequate to address any breach of contract issue should it arise.

BellSouth further contends that ITC^DeltaCom's proposal is unworkable. (Varner, Tr. Vol. 1 at 422). Cutovers are complicated, and both parties to the cutover as well as the end user customer are heavily involved in the process. Consequently, if a cutover is delayed, fault is difficult, if not impossible, to apportion. (Moses, Tr. Vol. 2 at 126; Varner, Tr. Vol. 2 at 127). BellSouth witness Varner testified that ITC^DeltaCom's proposal would, in all likelihood, create more litigation expenses arguing over fault than either party would incur in labor charges. To track costs for each instance would be a burdensome and unnecessary business practice. For a further discussion of this issue, see

the Commission's discussion of Issue 1(a).

Upon consideration of this issue, the positions of the parties, and the evidence of record, the Commission finds each party should be responsible for its own labor costs. The Commission recognizes that the cutover is a complicated process and that many difficulties arise in tracking labor costs. The record shows that it is sometimes simply impossible to apportion fault in situations in which cutovers are delayed. In the generic proceeding on performance measurements established by this Order, the Commission will entertain proposals on "performance guarantees," penalties, and liquidated damages provisions. The instant issue may be addressed by parties during the generic proceeding on performance measures.

Ordering Paragraph:

The interconnection agreement should not contain a provision for a party being responsible for the other party's reasonable labor costs for delaying a cutover. Each party will incur its own labor costs, and therefore pay for its own labor costs.

Issue 2(c)(v)
Should BellSouth be required to designate specific UNE center personnel for coordinating orders placed by ITC^DeltaCom?

ITC^DeltaCom Position:
Yes. ITC^DeltaCom will accept a designated single point of contact person. BellSouth should identify the individual to ITC^DeltaCom.

BellSouth Position:
BellSouth should not be required to specifically dedicate its personnel to serve only ITC^DeltaCom or any other individual CLEC. BellSouth incurs significant costs in connection with providing personnel to handle all CLEC orders for services and UNEs. BellSouth reviews anticipated and historical staffing requirements and assigns work activity in the most efficient manner possible in order to complete all necessary work functions for all CLECs.

Discussion:

ITC^DeltaCom contends that it is entitled to designated personnel at the UNE center to handle its UNE cutovers and proposes that "as people work together they work better together." (Moses, Tr. Vol. 2 at 130). ITC^DeltaCom contends that it will have a better working relationship with designated personnel with more accountability, more understanding, and more flexibility. (Moses, Tr. Vol. 2 at 130 - 131).

BellSouth contends that there is no requirement in the Act that obligates BellSouth to designate specific personnel for cutovers for ITC^DeltaCom. BellSouth's obligation under the 1996 Act is to provide nondiscriminatory access to UNEs, which BellSouth does today. BellSouth witness Milner testified that the most efficient way for BellSouth to meet its obligation under the 1996 Act for ITC^DeltaCom and all other CLECs is for BellSouth to carefully monitor workload requirements and to assign personnel as necessary to meet those requirements. (Milner, Tr. Vol. 2 at 131 – 132). BellSouth today must monitor total workload results and forecast future workload requirements and the personnel needed to meet those requirements based on historic trends, business forecasts, and the experience of local managers and technicians. Mr. Milner testified that BellSouth incurs real costs in connection with providing personnel to handle all CLEC orders for services and UNEs; therefore, BellSouth should retain the flexibility needed to meet its service and contractual obligations without any requirement to dedicate specific personnel to particular functions. (Milner, Tr. Vol. 2 at 132). ITC^DeltaCom appeared to indicate that it would cover BellSouth's costs for designating personnel, but then quickly backed off that commitment by arguing "that it is very possible for BellSouth to realize

economies of scale also in designating personnel to one of its larger purchasers." (Rozycki, Tr. Vol. 2 at 134).

Upon consideration of this issue, the positions of the parties, and the evidence of record, the Commission finds that BellSouth is not obligated to designate specific UNE center personnel for coordinating orders placed by ITC^DeltaCom, and the Commission will not require BellSouth to provide specific UNE personnel for coordinating orders placed by individual CLECs. Requiring such a designation could interfere with BellSouth from managing its workload in the most cost effective and efficient manner, thereby hindering BellSouth in accomplishing the very goal that the provision is meant to achieve, that is giving the best possible service to all CLECs.

Ordering Paragraph:

BellSouth is not required to specifically designate personnel to serve ITC^DeltaCom or to coordinate orders placed by ITC^DeltaCom.

Issue 2(c)(vi)

Should each party be responsible for the repair charges for troubles caused or originated outside of its network? If so, how should each party reimburse the other for any additional costs incurred for isolating the trouble to the other's network?

ITC^DeltaCom Position:

Yes. Where the root cause was not DeltaCom's network, BellSouth should bear such costs. BellSouth should reimburse DeltaCom for any additional costs associated with isolating the trouble to BellSouth's facilities and/or equipment.

BellSouth Position:

The party responsible for the repairs should bear the costs associated with those repairs. (See FCC First Report and Order at ¶258, CC Docket 96-98 (8-8-96)). BellSouth has agreed to be responsible for such costs that are incurred due to BellSouth's network. However, BellSouth should not be responsible for costs due to ITC^DeltaCom's network.

BellSouth and ITC^DeltaCom should each be responsible for its own costs incurred in determining the cause of any trouble. Thus, this issue is not appropriate for arbitration. (Exhibit "A" attached to this Issues Matrix contains BellSouth's proposed contract language on this issue.)

Discussion:

According to Mr. Moses for ITC^DeltaCom, the party who has the trouble in the network should pay the cost of repairing the trouble in the network. ITC^DeltaCom asserts that the trouble arises if ITC^DeltaCom has to isolate a trouble to BellSouth's network a second time; ITC^DeltaCom contends it is entitled to reimbursement for the costs incurred in the second trouble isolation. Mr. Moses also stated that if BellSouth isolates trouble with ITC^DeltaCom's network multiple times that BellSouth should be compensated for the additional testing and diagnosis. (Moses, Tr. Vol. 2 at 143). BellSouth testified that the party responsible for the repairs should bear the costs associated with those repairs. According to Mr. Varner, when ITC^DeltaCom leases facilities from BellSouth, the cost of those facilities includes the costs associated with maintenance and repair as specified in the FCC's First Report and Order, paragraph 258. ITC^DeltaCom should, however, be responsible for maintenance and repair on its own facilities. (Varner, Tr. Vol. 2 at 144).

With initial trouble isolation, ITC^DeltaCom should be responsible for the initial trouble report. When determined by ITC^DeltaCom that the trouble resides on BellSouth's network, BellSouth will assume repair responsibilities via a trouble report. BellSouth further testified that BellSouth should not reimburse ITC^DeltaCom for any additional costs ITC^DeltaCom incurs in isolating the trouble to BellSouth's network. Likewise, if a BellSouth end user experiences trouble calling an ITC^DeltaCom

customer, BellSouth does not bill ITC^DeltaCom for the costs incurred to isolate a trouble to ITC^DeltaCom's network. (Varner, Tr. Vol. 1 at 423).

BellSouth contends that the reimbursement system proposed by ITC^DeltaCom would be unwieldy, and is not required by the Act. Each party should bear its own costs – such a system is fair and manageable. (Varner, Tr. Vol. 1 at 423).

Based upon the issue, the positions of the parties, and the evidence of record, the Commission finds that each party should be responsible for the repair cost of the initial investigation or isolation of repairs. Thereafter, if additional testing and diagnosis are required to isolate trouble on the network for the same complaint, the party on whose network the trouble is ascertained shall bear the cost of the repairs and shall reimburse the other party for the additional cost incurred in isolating the trouble. At the hearing, the parties seemed to agree to this result, and the Commission finds it acceptable.

Ordering Paragraph:

With respect to repair charges or troubles caused or originated outside of the party's network, each party shall be responsible for the repair cost of the initial investigation or isolation of repairs. Thereafter, if additional testing and diagnosis are required to isolate trouble on the network for the same complaint, the party on whose network the trouble is ascertained shall bear the cost of the repairs and shall reimburse the other party for the additional cost incurred in isolating the trouble.

Issue 2(c)(viii)
Should BellSouth be responsible for maintenance to HDSL and ADSL compatible loops provided to ITC^DeltaCom? If so, at what rate?

ITC^DeltaCom Position:
Yes. BellSouth should maintain these loops at industry standard quality levels. Maintenance should be priced at FCC compliant TELRIC rates. See Section 251(c)(3) of the Act.

BellSouth Position:
BellSouth will provide maintenance and repair for HDSL and ADSL compatible loops as the parties may agree. However, the loop modifications requested by ITC^DeltaCom (and other CLECs) are not a UNE offering. Thus, if BellSouth is providing a loop that has been modified from its original technical standards at the request of ITC^DeltaCom, such as HDSL or ADSL compatibility, then BellSouth cannot guarantee that the modified loop will meet the technical standards of a non-modified loop.

Discussion:

ITC^DeltaCom contends that if it buys a UNE that is HDSL compatible, it should remain HDSL compatible -- in other words, BellSouth has an obligation to maintain it as HDSL compatible. (Moses, Tr. Vol. 2 at 146). BellSouth contends that ITC^DeltaCom has failed to draw a distinction between the services BellSouth provides to its end-user customers. According to BellSouth witness, Mr. Milner, BellSouth does not provide HDSL and ADSL "facilities" as UNEs to ITC^DeltaCom or to any other CLEC. What BellSouth does provide is a federally-tariffed wholesale ADSL service to certain wholesale customers, such as ISPs (Internet Service Providers). BellSouth's ADSL wholesale service, however, is a separate and distinct offering from BellSouth's ADSL or HDSL UNE compatible loop offering. The UNE offering is a unique network capability offered to CLECs via the service inquiry process. (Milner, Tr. Vol. 2 at 147). Mr. Milner explained that "in terms of HDSL and ADSL compatible loops (the UNE

offering), if it breaks then we fix that. If we do something to make it not compatible, then we'll fix that too. The costs for the maintenance are recovered through our recurring charges for ADSL and HDSL compatible loops." (Milner, Tr. Vol. 2 at 147).

BellSouth further testified that while BellSouth offers an ADSL compatible loop, all of BellSouth's loops are not ADSL compatible. (Milner, Tr. Vol. 1 at 674 – 676). ADSL service requires that certain technical standards be met. BellSouth's ADSL compatible loops meet those technical standards, but other BellSouth loops do not. Many significant activities are required to transform a voice grade loop into an ADSL compatible loop, including service inquiry, design engineering, and connection and testing activities. If BellSouth provides ITC^DeltaCom with a modified loop (i.e. BellSouth has transformed a voice grade loop from its original technical standards to meet the standards requested by ITC^DeltaCom and/or required for ADSL and HDSL), BellSouth cannot guarantee that the modified loop will meet the technical standards of a non-modified loop. (Milner, Tr. Vol. 1 at 675).

Based upon the issue, the positions of the parties, and the evidence from the hearing, the Commission finds that original technical standards on HDSL and ADSL compatible loops should be maintained. BellSouth acknowledged at the hearing that it will repair its ADSL and HDSL UNE compatible loops and that the costs of repair and maintenance are recovered through the recurring charges for ADSL and HDSL compatible loops. For non-standard or modified HDSL and ADSL compatible loops, the Commission requires BellSouth to provide the same standards as BellSouth uses on its

network. The Commission believes that this result will ensure that the loops used by ITC^DeltaCom will meet the specifications required.

Ordering Paragraph:

The Commission requires that original technical standards on HDSL and ADSL compatible loops should be maintained. Further for non-standard or modified HDSL and ADSL compatible loops, the Commission requires BellSouth to provide the same standards as BellSouth uses on its network. Costs for repair and maintenance are recovered through the recurring charges for these UNEs which were established in Docket No. 97-374-C.

Issue 2(c)(xiv)

(a) **Should BellSouth be required to coordinate with ITC^DeltaCom 48 hours prior to the due date of a UNE conversion?**

(b) **If BellSouth delays the scheduled cutover date, should BellSouth be required to waive the applicable nonrecurring charges?**

ITC^DeltaCom Position:

(a) Yes. Customer transfers should be completed smoothly and efficiently.

(b) Yes. Performance guarantees are also required to ensure scheduled cutover dates are not missed repeatedly.

BellSouth Position:

(a) No. BellSouth does not agree that coordination 48 hours prior to the due date is necessary on every type of UNE conversion. However, with respect to SL2 type loops only, BellSouth will agree to use its best efforts to schedule a conversion date and time 24 to 48 hours prior to the conversion.

(b) No. BellSouth does not agree to waive the applicable nonrecurring charges whenever a cutover is delayed, particularly when any number of variables and circumstances may cause a delay in the schedule. Thus, this issue is not appropriate for arbitration. (See BellSouth's position on Issue 1(b)).

Discussion:

ITC^DeltaCom contends that the parties must coordinate on all UNE conversions 48 hours in advance of the conversion. (Moses, Tr. Vol. 2 at 150). Mr. Moses testified that coordination will benefit both parties as well as the customer and will help enable ITC^DeltaCom to provide more cost-effective and efficient service. (Moses, Tr. Vol. 2 at 152 – 153). BellSouth opposes ITC^DeltaCom's proposal that BellSouth be required to coordinate with ITC^DeltaCom 48 hours prior to the due date of a UNE conversion because BellSouth contends the proposal is overbroad. (Milner, Tr. Vol. 2 at 151). For example, according to BellSouth, by requiring coordination 48 hours in advance for *all* UNEs, ITC^DeltaCom includes SL1 loops, a UNE that is not normally subject to coordination. BellSouth witness Milner says ITC^DeltaCom's proposal will create unnecessary work and costs with no corresponding gain in improved provisioning. (Milner, Tr. Vol. 2 at 152). Recognizing the importance of coordination, however, BellSouth has agreed with regards to SL2 loops to exert its best efforts to schedule a conversion date and time 24 to 48 hours prior to a conversion. (Milner, Tr. Vol. 1 at 678).

BellSouth also states that it should not be obligated to waive applicable nonrecurring charges if a scheduled cutover date is delayed. First, BellSouth contends that waiving nonrecurring charges constitutes a penalty and, thus, is outside the jurisdiction of this Commission. (Varner, Tr. Vol. 1 at 427). BellSouth points out that the Commission held in the AT&T arbitration, the Commission "lacks the jurisdiction to impose penalties or fines" in the context of an arbitration proceeding. (*See* Order No. 97-

189, Docket No. 96-358-C, 3/10/97, at 6). Moreover, BellSouth contends that it is not required under the Act or under FCC rules to waive nonrecurring charges in such a situation. According to BellSouth, the Act does not obligate BellSouth to pay penalties, and thus, imposing penalties would be outside the scope of the Act and therefore inappropriate. Furthermore, BellSouth witness Varner pointed out that both parties may have reasonable circumstances which might cause a delay in the schedule. There is no mechanism in place to track all delays, nor to identify the responsible party. According to BellSouth, such a tracking system would be unworkable according to BellSouth because in many cases, both parties contribute to delays. (Varner, Tr. Vol. 1 at 427). Moreover, any attempt to allocate fault would, of necessity, be largely arbitrary.

Based upon this issue, the positions of the parties, and the hearing record, the Commission finds BellSouth and ITC^DeltaCom shall coordinate all cutovers 24 hours in advance of the scheduled cutover. The parties have operated under an informal agreement of coordination for SL2 cutovers since the Spring of 1999, and the Commission ordered provision expands and memorializes that informal agreement as part of the interconnection agreement. The Commission hopes that 24 hour coordination will ensure efficient and smoothly accomplished customer cutovers.

Additionally and consistent with the Commission's decision on Issue 1(b), the Commission finds that BellSouth should waive the non-recurring charges if BellSouth's assigned due date is missed as a result of BellSouth's error. This provision regarding the waiver of nonrecurring charges is on an interim basis until the Commission has concluded its generic proceeding on performance measures and performance guarantees.

Ordering Paragraph:

The Commission requires BellSouth and ITC^DeltaCom to coordinate all cutovers 24 hours in advance of the scheduled cutover. Additionally, BellSouth shall waive the non-recurring charges if BellSouth's assigned due date is missed as a result of BellSouth's error. This provision regarding the waiver of nonrecurring charges is on an interim basis until the Commission has concluded its generic proceeding on performance measures and performance guarantees.

Issue 2(f):
Should BellSouth be required to establish Local Number Portability (LNP) cutover procedures under which BellSouth must confirm with ITC^DeltaCom that every port subject to a disconnect order is worked at one time?

ITC^DeltaCom Position:
BellSouth must establish procedures for LNP cutovers pursuant to which BellSouth must confirm with ITC^DeltaCom that every port subject to a disconnect order is worked at one time. ITC^DeltaCom's proposed procedures are identified in Attachment 5, Section 2.6 of the proposed interconnection agreement.

BellSouth Position:
BellSouth agrees with ITC^DeltaCom that coordination between itself and ITC^DeltaCom is extremely important for LNP order cutovers. BellSouth and ITC^DeltaCom have agreed to proposed language whereby BellSouth will ensure that a disconnect order is completed for all ported numbers once the Number Portability Administration Center ("NPAC") notification of ITC^DeltaCom's Activate Subscription Version has been received by BellSouth. The issue to which BellSouth cannot agree is the timeframes proposed by ITC^DeltaCom. The proposed timeframes are not reasonable and should not be adopted by the Commission.

Discussion:

ITC^DeltaCom is seeking the implementation of quality control assurances for LNP. (Moses, Tr. Vol. 2 at 155). The major difference in the parties' proposals is a

question of how much checking of work steps will be done. (Milner, Tr. Vol. 2 at 155). According to Mr. Milner, "[w]e have agreed with DeltaCom that we will put language in place that we believe will ensure that those disconnect orders are worked in a timely manner." (Id.) Given that ITC^DeltaCom had not even reviewed the most recent proposals on this issue, their position on this issue seems fairly tenuous. (Moses, Tr. Vol. 2 at 156).

Based upon this issue, the positions of the parties, and the evidence of record, the Commission denies ITC^DeltaCom's proposed LNP procedures set forth in Attachment 5, Section 2.6 of ITC^DeltaCom's proposed interconnection agreement as the proposed language contains timeframes that are unreasonable and should not be required. For LNP cutover procedures, the Commission requires that (a) if BellSouth receives a disconnect order by 12:00 noon that BellSouth will work that conversion that same day, and (b) if BellSouth receives a disconnect order after 12:00 noon that BellSouth will work that conversion by close of business the next day. The Commission finds these timeframes to be reasonable.

Ordering Paragraph:

For LNP cutover procedures, the Commission requires that (a) if BellSouth receives a disconnect order by 12:00 noon that BellSouth will work that conversion that same day, and (b) if BellSouth receives a disconnect order after 12:00 noon that BellSouth will work that conversion by close of business the next day.

Issue 2(g):
Should "order flow-through" be defined in the interconnection agreement, and if so, what is the definition?

ITC^DeltaCom Position:

Flow-through should be defined in the parties' interconnection agreement. The definition of flow through should include pre-ordering functions. Specifically, ITC^DeltaCom seeks the following definition be included in the agreement: "Flow Through is defined as an end-to-end pre-ordering and ordering process (including legacy BellSouth applications) without manual intervention. Specifically, Flow Through, includes electronic reporting of order status, electronic reporting of errors and electronic notification of critical events such as 'jeopardy notification' and rescheduled due dates. BellSouth shall provide Flow Through of electronic processes in a manner consistent with industry standards and, at a minimum, at a level of quality equivalent to itself or to any CLEC with comparable systems."

BellSouth Position:

It is not necessary for the interconnection agreement to contain a definition of "flow through," nor is ITC^DeltaCom's proposed definition appropriate. ITC^DeltaCom's definition of flow-through is contrary to the manner in which the term is commonly used by the Federal Communications Commission. Based upon the FCC's definition, BellSouth contends that a service request flows through an electronic order system only when a CLEC or BellSouth representative takes information directly from an end user customer, inputs it directly into an electronic order interface without making any changes or manipulating the customer's information, and sends the complete and correct request downstream for mechanized order generation.

Discussion:

ITC^DeltaCom wants a definition of flow-through included in the agreement to clarify the meaning of flow-through and to include an obligation on BellSouth to provide complete electronic pre-ordering, ordering, and provisioning of all UNEs and resale services. (Thomas, Tr. Vol. 2 at 157). BellSouth, on the other hand, contends that there is no need to incorporate any definition of flow-through into the interconnection agreement. (Pate, Tr Vol. 2 at 160). The FCC has established the meaning of flow-through in its orders, and has approved, at least informally, BellSouth's calculation of flow-through in its Service Quality Measurements, which is derived from the FCC's definition of flow-

through. BellSouth's position is that adding a definition to the Agreement is redundant and unnecessary, particularly when ITC^DeltaCom is seeking to alter the FCC's definition of flow-through. (Pate, Tr. Vol. 1 at 620; Vol. 2 at 159).

BellSouth states that to the extent the Commission determines that a definition of flow-through should be incorporated into the agreement, the Commission should adopt BellSouth's definition. (Pate, Tr. Vol. 2 at 159 – 160). In Paragraph 107 of its Second Louisiana Order in CC Docket No. 98-121, the FCC stated that "a competing carrier's orders 'flow-through' if they are transmitted electronically through the gateway and accepted into BellSouth's back office order systems without manual intervention." (Pate, Tr. Vol. 1 at 622). BellSouth's definition of flow-through mirrors the FCC's definition and therefore is appropriate. (Pate, Tr. Vol. 2 at 159). Under BellSouth's definition, flow-through for a CLEC Local Service Request (LSR) begins when the complete and correct electronically-submitted LSR is sent via one of the CLEC ordering interfaces (*i.e.* EDI, TAG or LENS), flows through the mechanical edit checking and local exchange service order generation system ("LESOG"), is mechanically transformed into a service order by LESOG, and is accepted by the Service Order Control System ("SOCS") without any human intervention. BellSouth believes these steps mirror the steps that the FCC envisioned encompassed in flow through. Contrary to ITC^DeltaCom's position, BellSouth contends pre-ordering is not part of this process, nor is electronic notification of order status and jeopardies. (Pate, Tr. Vol. 1 at 622).

BellSouth objects to ITC^DeltaCom's attempt to broaden the definition of flow-through to create an obligation on BellSouth to provide complete electronic pre-ordering,

ordering, and provisioning of all UNEs and resale services. (Pate, Tr. Vol. 1 at 624). According to BellSouth, the Act obligates BellSouth to provide CLECs with access to the required functions and information through CLEC electronic interfaces in substantially the same time and manner as BellSouth does for itself. Such access provides efficient CLECs with a meaningful opportunity to compete. BellSouth provides CLECs with access to electronic pre-ordering, ordering and provisioning in substantially the same time and manner as BellSouth has for itself. (Pate, Tr. Vol. 1 at 624).

BellSouth witness Pate testified that the key point is that BellSouth does not place all of its orders electronically. (Pate, Tr. Vol. 1 at 626). According to Pate, many of BellSouth's retail services, primarily large business complex services, involve substantial manual handling by BellSouth's account teams for BellSouth's own retail customers. Nondiscriminatory access requires only that CLECs be given access in substantially the same time and manner as BellSouth, not that CLECs place all orders electronically. BellSouth testified that the manual processes that BellSouth uses for complex resold services offered to the CLECs are accomplished in substantially the same time and manner as the processes used for BellSouth's complex retail services. BellSouth believes that the specialized and complicated nature of complex services, together with their relatively low volume of orders as compared to basic exchange services, renders them less suitable for mechanization, whether for retail or resale applications. BellSouth contends that because the same manual processes are in place for both CLECs and BellSouth retail orders, the processes are competitively neutral and are therefore in compliance with both the Act and the FCC rules. (Pate, Tr. Vol. 1 at 626-27).

BellSouth further contends that neither the Act nor the FCC rules require that an interconnection agreement contain a definition of flow-through. BellSouth requests that to the extent, the Commission determines that such a definition is appropriate, the Commission should adopt BellSouth's definition because it is the only one that comports with the requirements of the Act and the FCC. BellSouth contends that ITC^DeltaCom's definition is overly broad, and places obligations on BellSouth that are above and beyond those set forth in the Act and thus, it is not an appropriate or necessary definition for an interconnection agreement.

Based upon this issue, the positions of the parties, and the evidence from the hearing, the Commission finds that it is necessary to include a definition of flow-through in the interconnection agreement. Of the two definitions, BellSouth's definition of flow-through comports with the requirements of the Act and the FCC. Therefore, the Commission adopts the definition of flow-through as proposed by BellSouth and which is contained in the FCC Second Louisiana Order, at ¶ 107, CC Docket 98-121 (8-13-98).

Ordering Paragraph:

The Commission requires the inclusion of the definition of "flow-through" in the interconnection agreement and requires that the definition of flow-through as contained in the FCC Second Louisiana Order, at ¶ 107, CC Docket 98-121 (8-13-98) be used.

Issue 3:
[Question 1] Should BellSouth be required to pay reciprocal compensation to ITC^DeltaCom for all calls that are properly routed over local trunks, including calls to Information Service Providers ("ISPs")?

[Question 2] What should be the rate for reciprocal compensation per minute of use, and how should it be applied?

ITC^DeltaCom Position:
[Question 1] BellSouth should be required to pay reciprocal compensation for ISP-bound traffic. The appropriate inter-carrier compensation mechanism for ISP-bound traffic is reciprocal compensation because the caller's provider should bear the costs of the call to the ISP.
[Question 2] ITC^DeltaCom is entitled to the tandem termination rate for reciprocal compensation because ITC^DeltaCom's switch serves the same geographic area as BellSouth's tandem switch, and performs the same functions as BellSouth's tandem switch.

BellSouth Position:
[Question 1] Under 47 U.S.C. § 251(b)(5) and 47 C.F.R. § 51.701, reciprocal compensation is applicable only to local traffic. "Local" trunks may actually carry access or toll traffic in addition to local traffic, and thus reciprocal compensation is not applicable to all traffic that travels over local trunks. ISP-bound traffic, even if it is carried over local trunks, is not local traffic and is not subject to the reciprocal compensation obligations of the Act. In addition to being contrary to the law, treating ISP-bound traffic as local for purposes of reciprocal compensation is contrary to sound public policy. The Commission need not address this issue at this time because the FCC has jurisdiction over ISP-bound traffic and the FCC decision in this matter will preempt any decision the Commission renders in this docket.
[Question 2] The appropriate rates for reciprocal compensation are the elemental rates for end office switching, tandem switching and common transport that are used to transport and terminate local traffic and were established by this Commission in the cost orders in Docket No. 97-374-C. If a call is not handled by a switch on a tandem basis, it is not appropriate to pay reciprocal compensation for the tandem switching function.

Discussion:

[Question 1]

This issue requires the Commission to address the economic principles and public policy concerns underlying reciprocal compensation for ISP-bound traffic for the purposes of this interconnection agreement on a going forward basis. The parties appear to agree that the FCC has deemed ISP-bound traffic to be jurisdictionally interstate. The question pending before the Commission is how, or whether, to provide for compensation

for ISP-bound traffic. ITC^DeltaCom contends that, despite the fact that the FCC found that ISP-bound traffic is in large part jurisdictionally interstate, the Commission should order that reciprocal compensation be paid for ISP-bound traffic. (Starkey, Tr. Vol. 1 at 238 - 241). ITC^DeltaCom contends that treating ISP-bound traffic as if it were local for purposes of reciprocal compensation is sound public policy (Starkey, Tr. Vol. at 241). BellSouth, on the other hand, contends that reciprocal compensation is a mechanism that applies only to the exchange of *local* traffic. (Varner, Tr. Vol. 1 at 434). As recently reiterated by the FCC in its Declaratory Ruling FCC 99-38 in CC Docket Nos. 96-98 and 99-69 adopted February 25, 1999, released February 26, 1999, (*"Declaratory Ruling"*) and, as even ITC^DeltaCom admits, ISP-bound traffic is jurisdictionally interstate. (Starkey, Tr. Vol. 1 at 239) Thus, according to BellSouth, it is not included in the Act's requirements regarding reciprocal compensation. BellSouth seeks an order that states that reciprocal compensation only should be applied to traffic that meets the FCC's definition of "local traffic."

ITC^DeltaCom argues that BellSouth should pay reciprocal compensation for all traffic that travels over "local" trunks. ITC^DeltaCom witness Starkey testified that a call originating on the BellSouth network and directed to the ITC^DeltaCom network travels the same path, requires the same use of faciltities and generates the same level of cost regardless of whether the call is dialed to an ITC^DeltaCom local residential customer or to an ISP provider. (Starkey, Tr. Vol. 1 at 245) Thus, Mr. Starkey asserts that the rates associated with recovering the costs for both calls should be the same since both calls

travel the same path and the same equipment to reach their destination. (Starkey, Tr. Vol. 1 at 246)

BellSouth responds to ITC^DeltaCom's proposal by arguing that such a reciprocal compensation mechanism is inappropriate. According to BellSouth, "local" trunks may properly route or carry access or toll traffic in addition to local traffic. (Varner, Tr. Vol. 1 at 429). Simply because a local trunk carries ISP-bound traffic, which is jurisdictionally interstate, reciprocal compensation is not applicable. BellSouth witness Varner testified that the test for the application of reciprocal compensation payments should not be the type of trunk used to transport the traffic; rather the test is the end-to-end nature of the call, as the FCC has reaffirmed. (Varner, Tr. Vol. 1 at 429-30).

In considering this issue, the Commission recognizes the FCC's *Declaratory Ruling*. In that *Declaratory Ruling*, the FCC concluded that ISP-bound traffic is non-local interstate traffic. FCC 99-38, footnote 87. In reaching its conclusion, the FCC acknowledged that it has construed the reciprocal compensation mechanism of Section 251(b)(5) to apply only to the transport and termination of local traffic. FCC 98-38, ¶ 7. The FCC carefully examined the nature of ISP-bound traffic and noted that "the communications at issue here do not terminate at the ISP's local server, as CLECs and ISPs contend, but continue to the ultimate destinations, specifically at a Internet website that is often located in another state." FCC 98-38, ¶ 12. Further, the FCC acknowledged that "an Internet communication does not necessarily have a point of 'termination' in the traditional sense." FCC 98-38, ¶ 18. The FCC clearly stated that state commissions could decide to impose reciprocal compensation obligations in an arbitration proceeding and

also stated that state commissions were "free not to require the payment of reciprocal compensation for this traffic." FCC 98-38, ¶ 26.

Based upon the evidence before it, the positions advocated by the parties, and the Declaratory Ruling of the FCC, the Commission finds that reciprocal compensation should not apply to ISP-bound traffic. The FCC in its *Declaratory Ruling* concluded that ISP-bound traffic is non-local interstate traffic and clearly left the determination of whether to impose reciprocal compensation obligations in an arbitration proceeding to the state commissions. FCC 98-38, footnote 87 and ¶ 26.This Commission concludes that ISP-bound traffic is not subject to reciprocal compensation. While it may be true that ISP-bound traffic travels similar paths across the same facilities as local calls to residential customers as advanced by ITC^DeltaCom, it is also clear that ISP-bound calls do not terminate at the ISP. In the example given by witness Starkey for ITC^DeltaCom, the local call to the residential customer clearly terminates on the ITC^DeltaCom network. ISP-bound traffic, on the other hand, does not terminate at the ISP's server but continues to the ultimate Internet destination which is often located in another state. *See* FCC 99-38, ¶ 12. As ISP-bound traffic does not terminate at the ISP's server on the local network, this Commission finds that ISP-bound traffic is non- local traffic. Further, since Section 251 of the 1996 Act requires that reciprocal compensation be paid for local traffic, the Commission further finds that the 1996 Act imposes no obligation on parties to pay reciprocal compensation for ISP-bound traffic.

The Commission is also aware that the FCC has initiated further proceedings regarding the issue of ISP-bound traffic and reciprocal compensation. Of course, this

Commission will revisit this issue if the FCC issues a ruling impacting the decision rendered herein.

[Question 2] :

With regard to the appropriate rate for reciprocal compensation, Mr. Starkey for ITC^DeltaCom stated that the rate should be based upon the last approved reciprocal compensation rate in South Carolina which is $.009 per minute. (Starkey, Tr. Vol. 2 at 179) Mr. Varner for BellSouth testified that the rate should be the same rate between the parties but further stated that the rate should only apply to those elements that are actually used to transport and terminate traffic. (Varner, Tr. Vol. 2 at 180) BellSouth contends that it is not appropriate for ITC^DeltaCom to charge BellSouth for tandem switching functions it does not perform. According to BellSouth, if a call is not handled by a switch on a tandem basis, it is not appropriate to pay reciprocal compensation for the tandem switching function. (Varner, Tr. Vol. 1 at 433). According to ITC^DeltaCom, it is entitled to the tandem switching rate because its switch serves the same geographic area as BellSouth's tandem switch. (Starkey, Tr. Vol. 1 at 255). ITC^DeltaCom further contends that its switch performs many of the same functions that BellSouth's tandem performs (Starkey, Tr. Vol. 1 at 257).

In determining the appropriate reciprocal compensation rate, the Commission notes that the previously approved interconnection agreement contained a reciprocal compensation rate of $.009 per minute for termination of local traffic. This Commission found that rate to be compliant with the requirements of Section 252(d) of the 1996 Act. The Commission finds that nothing has changed in the past two years that causes the

Commission to conclude that the underlying costs associated with transport and termination have changed. The Commission concludes that the $.009 per minute is appropriate and approves the previously approved rate of $.009 per minute as the rate for reciprocal compensation for the new interconnection agreement.

Ordering Paragraph:

[Question 1] The Commission finds that ISP-bound traffic is non-local interstate traffic. As such, the Commission finds on a going-forward basis and for the purposes of this interconnection agreement that ISP-bound traffic is not subject to the reciprocal compensation obligations of the 1996 Act.

[Question 2] The Commission approves a reciprocal compensation rate of $.009 per minute for local traffic and directs the parties to include this rate in the interconnection agreement. However, as explained above, reciprocal compensation will not apply to ISP bound traffic.

Issue 3(h):
If ITC^DeltaCom needs to reconnect service following an order for a disconnect, should BellSouth be required to reconnect service within 48 hours?

ITC^DeltaCom Position:

Following an order for a disconnect, BellSouth should be required to reconnect the service to ITC^DeltaCom's customer within 48 hours. According to ITC^DeltaCom, the issue often arises in situations in which a customer pays an outstanding bill and has been disconnected for failure to pay, or when a reconnect must be made quickly as in the case of slamming.

BellSouth Position:

BellSouth cannot reserve facilities for 48 hours following an order for a disconnect. As a practical matter, once a UNE facility has been disconnected for any reason, that facility is subject to immediate reuse, whether by CLECs or by BellSouth's end users. BellSouth should not be required to maintain facilities for any set period of time once service has been disconnected. Nonetheless, BellSouth will agree to use its best efforts to reconnect service within 24 hours.

Discussion:

ITC^DeltaCom witness, Mr. Moses testified that BellSouth should be obligated to reconnect a customer within 48 hours of a disconnect. (Moses, Tr. Vol. 2 at 181) According to BellSouth, ITC^DeltaCom's proposal is unworkable, unfair, and is not required under the Act. BellSouth witness Milner testified that once a UNE facility has been disconnected for any reason, that facility is subject to immediate reuse. (Milner, Tr. Vol. 2 at 186) In an area experiencing a shortage of facilities, it would not be unusual for a facility used by a CLEC or by a BellSouth retail unit to be reassigned within minutes to complete another order for another CLEC or BellSouth retail end-user. (Milner, Tr. Vol. 1 at 680). Mr. Milner further testified that reservation of facilities for ITC^DeltaCom could slow provisioning intervals for all other providers. According to BellSouth, such preferential treatment for ITC^DeltaCom is antithetical to the goals of the Act. Therefore, while BellSouth will agree to use its best efforts to reconnect the service as expeditiously as possible, BellSouth cannot commit to maintain facilities after disconnect for any period of time. Mr. Milner also stressed that the "best efforts" BellSouth is willing to provide to ITC^DeltaCom is the same interval it provides to itself. (Milner, Tr. Vol. 2 at 187).

With regard to this issue and based upon the record from the hearing, the Commission finds that BellSouth is not obligated to reconnect ITC^DeltaCom customers within 48 hours. The Commission finds that such a commitment would require BellSouth reserve facilities for ITC^DeltaCom for a period of time after a UNE facility has been disconnected. Such reservation of facilities would be detrimental to

provisioning efforts for other CLECs and BellSouth retail customers. While the Commission will not require BellSouth to reconnect within 48 hours for the reasons stated herein, BellSouth has stated in its position that it will use its best efforts to reconnect service within 24 hours. The Commission encourages BellSouth to meet this goal.

Ordering Paragraph:

While BellSouth is not required to reconnect ITC^DeltaCom customers within 48 hours, the Commission strongly encourages to BellSouth to meet its stated goal of using its best efforts to reconnect service within 24 hours.

Issue 3(m):
What type of repair information should BellSouth be required to provide to ITC^DeltaCom such that ITC^DeltaCom can keep the customer informed?

ITC^DeltaCom Position:
ITC^DeltaCom wants the ability to receive timely notification if a repair technician is unable or anticipates being unable to meet a scheduled repair, retrieve a list of itemized time and material changes at the time of ticket closure, provide test results, and electronically notify ITC^DeltaCom when the trouble is cleared.

BellSouth Position:
BellSouth provides ITC^DeltaCom with nondiscriminatory access to BellSouth's maintenance and repair OSS by providing electronic interfaces such as TAFI and the ECTA Gateway, as well as other manual interfaces. Among other things, these interfaces allow ITC^DeltaCom to enter customer trouble tickets into the BellSouth system, retrieve and track current status on all ITC^DeltaCom trouble and repair tickets, and receive an estimated time to repair on a real-time basis. These systems are the same maintenance and repair systems used by BellSouth retail units. TAFI does not provide itemized time and material charges for BellSouth's own retail units, and thus BellSouth is not obligated to provide them for ITC^DeltaCom or any other CLEC.

Discussion:

ITC^DeltaCom contends that it is entitled to an itemized list of time and material charges upon completion of repair work. ITC^DeltaCom contended that it needs timely billing information in order to verify the charges that it incurs for maintenance performed by BellSouth. ITC^DeltaCom contends that without the information, it cannot provide the level of service its customers expect, accurately bill its end-user, and verify BellSouth charges. Moreover, it contends BellSouth is not providing nondiscriminatory access to OSS. (Thomas Tr. Vol. 1 at 222).

BellSouth contends that the Act requires that BellSouth provide nondiscriminatory access to its OSS. In other words, BellSouth must allow CLECs to perform the functions of pre-ordering, ordering, provisioning, maintenance and repair, and billing for resale services in substantially the same time and manner as BellSouth does for itself; and, in the case of unbundled network elements, provide a reasonable competitor with a meaningful opportunity to compete.

BellSouth contends that it provides ITC^DeltaCom and the other CLECs with nondiscriminatory access to its maintenance and repair OSS by providing TAFI and ECTA Gateway. (Pate, Tr. Vol. 1 at 634). BellSouth witness Pate explained that CLEC TAFI is the same maintenance and trouble repair system used by BellSouth's own retail service representatives for non-designed services, except that CLEC TAFI combines functionality for both residential and business services, while BellSouth must use separate TAFI interfaces for its own residential and business retail units. (Pate, Tr. Vol. 1 at 635). Mr. Pate further explained that ECTA uses the T1/M1 national standard for local

exchange trouble reporting and notification. Because it follows the national standard for local exchange trouble reporting and notification, the following functions are available to users of ECTA: the ability to enter a report; to modify a report; to obtain status information during the life of the report; and to cancel a report. (Pate, Tr. Vol. 1 at 636). BellSouth contends that TAFI and ECTA are the same maintenance and repair systems used by BellSouth retail units.

According to BellSouth, it is not obligated to provide ITC^DeltaCom with an itemized time and material charges report because such information is not available to BellSouth's retail units. BellSouth contends that it cannot be required to give a CLEC more than it gives to itself. If the itemized time and material charges are something ITC^DeltaCom feels it needs, BellSouth testified that ITC^DeltaCom can submit a request to BellSouth and BellSouth will investigate the feasibility of instituting such a report for ITC^DeltaCom outside the context of an interconnection agreement. According to BellSouth, the Act does not require BellSouth to develop this capability for ITC^DeltaCom, and does not require BellSouth to provide it at cost-based rates, and, thus, the Commission should not grant ITC^DeltaCom request for relief.

Upon consideration of this issue and the record from the hearing, the Commission finds that BellSouth is providing ITC^DeltaCom nondiscriminatory access to its maintenance and repair OSS by providing ITC^DeltaCom access to TAFI and ECTA, which are the same maintenance and repair systems, used by BellSouth's retail units. As BellSouth is providing access to the same systems which it uses itself, BellSouth is not obligated to provide ITC^DeltaCom any functionalities that are not currently available in

TAFI and/or ECTA. If ITC^DeltaCom desires additional information than the information offered through either TAFI and/or ECTA, ITC^DeltaCom and BellSouth may negotiate a separate agreement outside this arbitration.

Ordering Paragraph:

BellSouth is providing repair information on a nondiscriminatory basis as BellSouth is providing access through OSS to the same maintenance and repair systems used by BellSouth's retail units. BellSouth shall not be required to provide additional repair information. However, the parties may negotiate a separate agreement outside this arbitration should ITC^DeltaCom desire additional information than that which is currently offered.

Issue 4(a):
Should BellSouth provide cageless collocation to ITC^DeltaCom 30 days after a firm order is placed?

ITC^DeltaCom Position:
ITC^DeltaCom is entitled to provisioning of cageless collocation in 30 days after a firm order is placed. Cageless collocation should be provisioned at intervals shorter than standard physical collocation and similar to virtual collocation.

BellSouth Position:
BellSouth is not required by the Act or the FCC to provide cageless collocation within 30 days after a firm order has been placed. In addition, given the numerous factors and activities required to fulfill a collocation request, it is neither practical nor feasible to require BellSouth to complete the collocation request within 30 days.

Discussion:

ITC^DeltaCom contends that because cageless collocation is similar to virtual collocation, it should be provisioned in 30 days or less. (Wood, Tr. Vol. 1 at 331).

ITC^DeltaCom witness Wood assumes that provisioning cageless collocation should be similar to provisioning virtual collocation and, thus, the intervals should be similar. (Wood, Tr. Vol. 1 at 331). ITC^DeltaCom contends that BellSouth will save time because it will not need to determine if room exists within its central office for the construction of a physically separated space, design the enclosure or have it constructed. (Wood, Tr. Vol. 1 at 332).

BellSouth contends that it has no legal or regulatory duty to provision cageless collocation in 30 days or less. (Thierry, Tr. Vol. 1 at 581). Moreover, BellSouth contends that its provisioning interval for collocation is not controlled by the time required to construct an arrangement enclosure, as ITC^DeltaCom implies. (Thierry, Tr. Vol. 1 at 581). Rather, according to BellSouth witness Thierry, the overall provisioning time is controlled by the time required to complete the space conditioning, add to or upgrade the heating, ventilation and air conditioning system for that area, add to or upgrade the power plant capacity and power distribution mechanism, and build out network infrastructure components such as cable racking and the number of cross-connects requested. Because these provisioning activities are performed, to the extent possible, in parallel, as opposed to serially, the absence of enclosure construction has little, if any, bearing on the provisioning interval. (Thierry, Tr. Vol. 1 at 581-2).

Moreover, Mr. Wood also contends that the interval for cageless collocation should be shorter than that for virtual collocation because of the "lack of administrative tasks associated with the exchange of ownership of the equipment." (Wood, Tr. Vol. at 332). BellSouth contends that "administrative tasks" are not included in the provisioning

interval for virtual collocation, and thus have no bearing on the provisioning interval for cageless collocation. (Thierry, Tr. Vol. 1 at 583).

BellSouth commits to complete its construction and provisioning activities as soon as possible but, at a maximum, within 90 business days under normal conditions or 130 business days under extraordinary conditions. (Thierry, Tr. Vol. 1 at 581). BellSouth contends that these intervals are appropriate, and provide CLECs a reasonable opportunity to compete. Thus, according to BellSouth, its proposed intervals meet the requirements of Section 251 of the Act.

Upon consideration of this issue, the positions of the parties, and the evidence of record, the Commission finds that BellSouth should provide cageless collocation within 90 days from receipt of a bona fide firm order. In reaching this decision, the Commission considered the 30 days proposed by ITC^DeltaCom and concluded that 30 days did not allow adequate time for BellSouth to complete its provisioning activities as explained by witness Thierry. On the other hand, the time intervals proposed by BellSouth appear to the Commission to be unusually generous, as 90 business days is over 4 months while 130 business days stretches to over 6 months. In order to provide a CLEC a meaningful opportunity to compete, the CLEC must be allowed access to the market. The Commission finds that 90 calendar days, which is approximately 3 months, should balance the interests between the parties on this issue.

Ordering Paragraph:

The Commission hereby orders BellSouth to complete its construction and provisioning activities for cageless collocation as soon as possible, but no later than 90

calendar days from receipt of a bona fide firm order. The Commission believes that this interval will provide CLECs a meaningful opportunity to compete and therefore meet the requirements of the Act.

Issue 5:
Should the parties continue operating under existing local interconnection arrangements?

ITC^DeltaCom Position:
[NOTE: ITC^DeltaCom believes that Issue 5 should be worded as follows: (BellSouth disagrees with this wording)]
(a) Should the current interconnection agreement language continue regarding cross-connect fees, reconfiguration changes or network redesigns and NXX translations?
(b) What should be the definition of the terms local traffic and trunking options?
(c) What parameters should be established to govern routing ITC^DeltaCom's originating traffic and each party's exchange or transit traffic?
(d) Should the parties implement a procedure for binding forecasts?

As the issue is proposed by ITC^DeltaCom, the answers are:
(a) Yes. BellSouth should continue to charge for cross-connect reconfiguration/network redesign and NXX translations in the same way it does under the agreement previously approved by the Authority.
(b) Local traffic and trunking option should be defined in the same way they are defined in the current agreement.
(c) The same parameters should be applied as those in the existing interconnection agreement.
(d) The parties must implement binding forecasts.

BellSouth Position:
As to Issue 5 as it is phrased, the parties should not continue operating under existing local interconnection arrangements. The purpose of negotiations is to incorporate new language, terms and obligations into an interconnection agreement in recognition of new technologies, changed circumstances, and changes in applicable law. BellSouth has negotiated with ITC^DeltaCom in good faith and will continue to do so in an effort to reach a new agreement regarding local interconnection.

Discussion:

The redrafted Issue 5, as set forth in "ITC^DeltaCom's Position" above includes several subtopics. For most of the subtopics, ITC^DeltaCom sought to continue the

language from the 1997 interconnection agreement in the new interconnection agreement with regard to these subtopics. Mr. Moses stated that the previous interconnection agreement approved by this Commission contained provisions regarding cross-connect fee, reconfiguration charges or network redesigns, and NXX translations. Mr. Moses also testified that the 1997 interconnection agreement defined the terms "local traffic" and "trunking options" as well as established parameters to govern routing ITC^DeltaCom's originating traffic and each party's exchange of transit traffic. With regard to all of these items contained in the 1997 interconnection agreement, Mr. Moses testified that ITC^DeltaCom desired the same terms as contained in the 1997 interconnection agreement. (Moses, Tr. Vol. 2 at 206 –207) While the issue of binding forecasts was not included in the previous interconnection agreement, Mr. Moses also stated that the Commission should implement a procedure for binding forecasts. (Moses, Tr. Vol. 2 at 207) Mr. Moses also acknowledged that it was not ITC^DeltaCom's position that the entire 1997 interconnection agreement be continued but just the issues that the existing agreement contained upon which the parties could not agree. (Moses, Tr. Vol. 2 at 208)

Mr. Varner for BellSouth stated that BellSouth did not want to continue with the definition of "local traffic" as contained in the 1997 interconnection agreement. (Varner, Tr. Vol. 2 at 209) Mr. Varner also testified that the issue of binding forecasts was not contained in the 1997 interconnection agreement and further stated that he did not believe that BellSouth was obligated to do binding forecasts. (Varner, Tr. 2 at 211)

With respect to binding forecasts, ITC^DeltaCom desires binding forecasts to ensure that BellSouth can provision the capacity that ITC^DeltaCom believes it will need

to serve its customers. Mr. Moses proposes that ITC^DeltaCom enter into a binding forecast with BellSouth as part of the interconnection agreement. (Moses, Tr. Vol. 1 at 148) Such an arrangement would presumably guarantee ITC^DeltaCom a certain level of capacity on BellSouth's network. Additionally, ITC^DeltaCom would reimburse BellSouth's costs even if the capacity were not actually used by ITC^DeltaCom. (Moses, Tr. Vol. 1 at 148)

Although not required under the Act or by FCC rules, BellSouth testified that it is currently analyzing the possibility of providing a service whereby BellSouth commits to provisioning the necessary network buildout and support when a CLEC agrees to enter into a binding forecast of its traffic requirements. While BellSouth stated that it has not yet completed the analysis needed to determine if this is a feasible offering, BellSouth testified that it is willing to discuss the specifics of such an arrangement with ITC^DeltaCom outside of this arbitration, because the issue is not a part of this proceeding. (Varner, Tr. Vol. 1 at 402)

Upon consideration of this issue, the positions of the parties, and the evidence from the record, the Commission concludes that the parties will use the language from the 1997 agreement as it relates to the 4 subtopics identified in Issue 5, unless otherwise negotiated and agreed between the parties, to the extent that (1) the 1997 contract contains language related to these issues, (2) the parties have not agreed to other language in the course of their negotiations, and (3) such language is not contrary to any Commission or FCC rule or order, including this Order. The Commission will allow the limited use of terms from the 1997 interconnection agreement as set forth above. The

parties have negotiated for many months on this interconnection agreement, and the Commission does not want to infringe upon the agreements that the parties have thus far reached.

Ordering Paragraph:

Unless otherwise negotiated and agreed between the parties with respect to ITC^DeltaCom's restated issues (a), (b), (c), and (d) set forth under the heading of "ITC^DeltaCom Position" above, the parties will use the language from the 1997 interconnection agreement as it relates to these four issues, to the extent that (1) the 1997 contract contains language related to these issues, (2) the parties have not agreed to other language in the course of their negotiations, and (3) such language is not contrary to any Commission or FCC order, including this Order.

Issue 6(a):
Should BellSouth be permitted to impose charges for BellSouth's OSS on ITC^DeltaCom?

ITC^DeltaCom Position:
BellSouth is not entitled to charge for development costs for OSS. If the Commission imposes development charges, such charges should be spread over all end user customers.

BellSouth Position:
This issue is not appropriate for arbitration because the Commission has already determined in a generic UNE cost proceeding the appropriate OSS rates for ITC^DeltaCom or any other CLEC. As determined previously by this Commission, under the Act and the FCC's orders and rules BellSouth is entitled to recover the reasonable charges it incurs in developing, providing, and maintaining the interfaces that make BellSouth's OSS accessible to CLECs.

Discussion:

ITC^DeltaCom contends that compensation for the use of BellSouth's OSS must

be contingent upon fully implemented systems "that are functioning properly " (Wood, Tr. Vol. 1 at 320). ITC^DeltaCom also contends that it is not obligated to compensate BellSouth for the development costs incurred in creating BellSouth's CLEC OSS. (Wood, Tr. Vol. 1 at 320)

According to Mr. Wood, requiring CLECs to pay for OSS development would constitute a significant barrier to entry. (Wood, Tr. Vol. 1 at 320) ITC^DeltaCom contends that if BellSouth is compensated for the costs it incurs, it has no incentive to provide OSS capabilities efficiently and in a nondiscriminatory manner. (Wood, Tr. Vol. 1 at 322) Mr. Wood proposes that the equitable solution to recovery of OSS costs is that each carrier, including ILECs and CLECs, should bear its own costs in developing and implementing effective and efficient OSS systems. (Wood, Tr. Vol. 1 at 325) Additionally, Mr. Wood asserts that the only truly competitive neutral mechanism for recovery of OSS transition costs is for each carrier to be fully responsible for its own OSS. Alternatively, Mr. Wood offers that the most competitively neutral mechanism, should the Commission conclude that some portion of BellSouth's OSS transition costs are to be paid for by the CLECs, would be a per customer charge that includes all retail customers in the denominator of the calculation and which amortizes the costs over the appropriate economic life of the assets. (Wood, Tr. Vol. 1 at 328)

BellSouth contends that it is entitled, under both the Act and the FCC's orders and rules, to recover its costs in providing access to OSS to CLECs. According to BellSouth, this issue has been addressed in numerous forums. For example, in AT&T's appeal of the Kentucky Commission's decisions on UNE cost rates from AT&T's arbitration proceeding, the U.S.D.C. for the Eastern District of Kentucky confirmed that BellSouth is entitled to recover its costs for developing operations support systems. (C.A. No. 97-79,

9/9/98) The District Court's Order at 16 states: "Because the electronic interfaces will only benefit the CLECs, the ILECs, like BellSouth, should not have to subsidize them. BellSouth has satisfied the nondiscrimination prong by providing access to network elements that is substantially equivalent to the access provided for itself. AT&T is the cost- causer, and it should be the one bearing all the costs; there is absolutely nothing discriminatory about this concept." More importantly, BellSouth pointed out that this Commission has previously found BellSouth's OSS cost recovery proposal to be consistent with its prior ruling in the AT&T arbitration case (Docket No. 96-358-C) which stated that the costs would be shared equitably among all the parties that benefited from the interfaces. BellSouth witness Varner testified that the rates that BellSouth proposes to charge ITC^DeltaCom, or any other CLEC, for use of OSS in South Carolina are the rates adopted by the Commission in its Cost Orders and contained in Exhibit AJV-1 to Mr. Varner's testimony (Hearing Exhibit 10). (Varner, Tr. Vol. 1 at 474).

BellSouth contends that Mr. Wood's criticisms of BellSouth's methodology for determining its OSS costs are without merit. According to BellSouth, this Commission has already addressed the validity of the OSS costs in its Cost Orders. Mr. Varner testified that Mr. Wood ignores the fact that the costs BellSouth presented in the Generic UNE Cost docket reflect only those costs directly attributable to establishing interfaces for use by CLECs. According to BellSouth, Mr. Wood's statement on page 13 of his testimony that "the new OSS implemented by BellSouth will benefit its own retail customers" is simply false. These interfaces are merely another layer to an existing legacy system, not an improvement to that legacy system. Thus, the OSS development and improvement can only benefit the CLEC. (Varner, Tr. Vol. 1 at 475)

Moreover, Dr. Taylor contends on behalf of BellSouth that Mr. Wood's analysis

is improper because it ignores the economic principle of cost causation. According to Dr. Taylor, cost causation determines the source of a cost and assesses charges on that source for effecting full cost recovery. Because BellSouth has had to develop OSS for use by *other* carriers, then those other carriers should be responsible for recovery of the additional OSS-related costs caused directly by them. Any failure to charge those other users of BellSouth's OSS for the additional OSS costs they cause – especially costs to develop OSS – would only generate perverse incentives and encourage inefficient behavior by the users. Dr. Taylor testified that if cost causation principles are not applied, entrants will demand excessively capital-intensive systems, and costs to telecommunications users will be higher than necessary. (Taylor, Tr. Vol. 1 at 537-39)

BellSouth contends that the Commission should reaffirm its previous holdings that BellSouth is entitled to recover its OSS development costs from the cost-causer – namely, the CLECs for whom the interfaces were developed. According to BellSouth, such an action is consistent with the Act and with FCC orders and rules.

Upon consideration of this issue, the positions of the parties, and the evidence from the hearing, the Commission finds that its previously issued Cost Orders in Docket No. 97-374-C are controlling. The Commission finds that its previously approved UNE rates should apply to the new interconnection agreement. This arbitration proceeding is not the proper forum for challenging UNE rates previously established. Moreover, under the principles of cost causation, the costs incurred in developing CLEC OSS should be recovered from the cost- causer – namely, the CLEC.

Ordering Paragraph:

The interconnection agreement shall incorporate rates for OSS as established by

Order No. 98-214 (June 1, 1998) in Docket No. 97-374-C. This Commission affirms its previous ruling that BellSouth is entitled to recover its OSS development costs, as well as costs incurred in the use of the OSS, from ITC^DeltaCom, and other CLECs who utilize the OSS.

Issue 6(b):
What are the appropriate recurring and non-recurring rates and charges for:
(a) two-wire ADSL/HDSL compatible loops?
(b) four-wire ADSL/HDSL compatible loops?
(c) two-wire SL1 loops?
(d) two-wire SL2 loops?
(e) two-wire SL2 Order Coordination for Specified Conversion Time?

ITC^DeltaCom Position:
ITC^DeltaCom contends that the Commission needs to set new rates for each of the referenced items that will be FCC compliant TELRIC rates.

BellSouth Position:
This issue is not appropriate for arbitration because this Commission has previously determined rates for the referenced items in a generic UNE cost proceeding. The UNE rates adopted by this Commission should be the rates incorporated into the parties' interconnection agreement. The exception to this position is for item (b), four-wire ADSL/HDSL compatible loops, because the ADSL functionality is not applicable to four-wire loops.

Discussion:

ITC^DeltaCom contends that the Commission needs to establish new rates for the specified elements because the rates the Commission established in Docket No. 97-374-C are not FCC compliant TELRIC cost studies. (Wood, Tr. Vol. 1 at 347 – 348) Mr. Wood contends that because the cost studies were adopted while the FCC pricing rules were vacated, the studies are not compliant with the FCC's cost methodology. (Wood, Tr. Vol. 1 at 349) Mr. Wood contends that "[a]s a result of the reinstatement of the FCC rules,

certain inputs, assumptions, and methodologies inherent in the BellSouth cost studies do not comply with the current law" (Wood, Tr. Vol. 1 at 350)

BellSouth contends that Issue 6(b) is one of several issues in this proceeding that does not need to be arbitrated because the Commission has already decided the issues. According to Mr. Varner, the appropriate rates for the UNEs identified by ITC^DeltaCom are the rates specified in the Commission's cost orders. (Varner, Tr. Vol. 1 at 476) BellSouth contends that an arbitration proceeding is not the appropriate place for a single CLEC to challenge the rates that were established in a generic, open cost proceeding. The Commission simply should adopt the rates established in its generic cost proceeding, and order that the parties incorporate such rates into the agreement.

ITC^DeltaCom challenges the rates established by the Commission on the grounds that the rates are not TELRIC-based rates. BellSouth contends that despite Mr. Wood's extensive testimony on the subject, he produced no evidence to contradict Ms. Caldwell's testimony that the studies BellSouth presented in conjunction with the Commission's cost proceeding were FCC-compliant TELRIC cost studies. Mr. Wood criticized the studies because they did not provide for geographic deaveraging of rates. (Wood, Tr. Vol. 2 at 232) BellSouth contends that this criticism is irrelevant because the FCC has stayed the implementation of geographic deaveraging until after the implementation of universal service and thus geographic deaveraging is not required at this point in time. According to BellSouth, until the FCC reinstates the geographic deaveraging requirement, there is no obligation for BellSouth, or this Commission, to deaverage cost studies or rates. BellSouth contends that there is no reason for the

Commission to alter its finding in the cost proceeding that "BellSouth has submitted detailed cost studies, which we believe, as modified, comply with all applicable legal standards." (Caldwell, Tr. Vol. 1 at 568)

ITC^DeltaCom witness, Mr. Moses, challenged BellSouth's nonrecurring charge for ADSL compatible loops. BellSouth contends that Mr. Moses' position was based on a fundamental misunderstanding of the difference between ADSL wholesale service and ADSL compatible loops. (Varner, Tr. Vol. 1 at 476) Mr. Varner explained BellSouth's ADSL offerings as follows: BellSouth's ADSL service, contained in BellSouth's FCC Tariff No. 1, is a non-designed interstate transport service which is an overlay to the customer's existing service, i.e., basic residence or business service, which the customer orders and pays for separately. ADSL service provides the ability to offer high-speed data service over the same line that is used to provide an existing end user's basic local exchange service. It is offered on a wholesale basis typically to Internet Service Providers ("ISPs"). These ISPs in turn resell the service to end users and charge the end users for the high speed data access. For example, BellSouth.net has one ADSL service option for which it charges $59.95 per month plus an installation charge of $199.00. The end user obtains voice grade basic local exchange service, vertical features, and access to toll services from BellSouth or from a reseller of BellSouth's basic local service. (Varner, Tr. Vol. 1 at 477)

Mr. Varner further testified that by comparison, an ADSL compatible loop is a connection from the BellSouth wire center to the end user's premises that is technically capable of providing both ADSL and basic local exchange service. This loop is an

unbundled capability sold to a CLEC. The CLEC generally installs equipment in BellSouth's central office to provide the voice and data service over this loop. A CLEC utilizing an ADSL compatible loop would provide its end user with basic local exchange service, vertical features, access to toll service, and ADSL service. It is also important to note that a CLEC's purchase of an ADSL compatible loop ensures that the loop will remain ADSL compatible. With BellSouth's wholesale ADSL service, there is a possibility that certain network reconfigurations could cause the line to lose its ability to support ADSL service. (Varner, Tr. Vol. 1 at 477-78)

Mr. Varner contended that the $100 installation charge to which Mr. Moses referred is for overlaying ADSL tariffed service onto the customer's existing service. That charge, according to BellSouth, does not represent installation of an additional physical facility. The cost-based non-recurring price for the ADSL compatible loop recovers the cost associated with service inquiry, service order, engineering, connect and test, and travel activities. Because ADSL compatible loops are designed, they require production of a Design Layout Record (DLR), as well as involvement of special services work groups. ADSL service does not generally require a premises visit unless the Network Interface Device ("NID") needs to be replaced. By comparison, the ADSL compatible loop offering always requires a designed physical loop facility and always requires dispatch of a BellSouth technician to the customer's premises. (Varner, Tr. Vol. 1 at 478)

BellSouth contends that ITC^DeltaCom has inappropriately attempted to represent one rate element of BellSouth's wholesale ADSL tariff offering as an exact

substitute for the nonrecurring installation rate for an ADSL compatible loop. This is an "apples to oranges" comparison, according to BellSouth. Based on the information presented above, BellSouth requested that the Commission require that ITC^DeltaCom purchase ADSL compatible loops at the cost-based rates specified in the Commission's Cost Orders as shown on Exhibit AJV-1 to Mr. Varner's testimony (Hearing Exhibit #10).

BellSouth contends that the studies adopted by the Commission in Docket No. 97-374-C were FCC-compliant TELRIC studies. Mr. Varner testified that the Commission, therefore, should order that the parties adopt the rates set for the identified elements in the generic cost proceeding and incorporate such rates into the interconnection agreement.

Upon consideration of this issue and the positions of the parties, the Commission finds that its previously issued Costs Orders in Docket No. 97-374-C are controlling. The Commission finds that its previously approved UNE rates should apply to the new interconnection agreement. This arbitration proceeding is not the proper forum for challenging UNE rates previously established. The Commission finds that the rates in Docket No. 97-374-C were derived using TELRIC cost methodology and thus are appropriate.

Ordering Paragraph:

The Commission finds that the rates previously established in Docket No. 97-374-C are appropriate and should be utilized in the instant proceeding. The interconnection agreement shall incorporate the rates established in Docket No. 97-374-C for each of the identified elements.

Issue 6(c):
Should BellSouth be permitted to charge ITC^DeltaCom a disconnection charge when BellSouth does not incur any costs associated with such disconnection?

ITC^DeltaCom Position:
BellSouth does not incur any costs associated with disconnection and therefore there should be no charge for disconnection.

BellSouth Position:
This issue is not appropriate for arbitration because this Commission has previously determined, in its generic UNE cost proceeding, that the disconnect costs which are included in the nonrecurring rates, are appropriate. BellSouth should recover disconnection costs in cases in which it incurs costs associated with disconnection.

Discussion:

ITC^DeltaCom contends that BellSouth is not entitled to charge an up-front disconnection charge when no physical disconnection of facilities occurs. (Wood, Tr. Vol. 1 at 335) Mr. Wood also contended that BellSouth should not charge a disconnect charge when the customer selects another local provider because "the disconnect from the initial local service provider and the connect to the new local service provider are a single activity." (Wood, Tr. Vol. 1 at 335)

BellSouth contends that ITC^DeltaCom is burdening this Commission with an issue that the Commission has already decided. BellSouth testified that in Docket No. 97-374-C (the generic UNE cost proceeding), the Commission made a decision on disconnect costs, the precise question ITC^DeltaCom is raising in Issue 6(c). According to BellSouth, the Commission allowed BellSouth to recover its disconnect costs in the initial installation price of the UNE, just as an end user customer pays for disconnect costs in the installation price of a BellSouth retail service. BellSouth contends that Mr.

Wood is seeking to have this Commission reverse its decision now, despite the fact that ITC^DeltaCom apparently did not deem the issue important enough to participate in the UNE cost proceeding where this decision and other UNE pricing decisions were made. (Varner, Tr. Vol. 1 at 478-479; Caldwell, Tr. Vol. 1 at 566-67)

BellSouth testified that the Commission's decision on disconnect costs was the right decision. According to BellSouth, it incurs costs to disconnect services provided to CLECs, and it is appropriate to recover those costs in prices charged to CLECs. Any applicable costs to disconnect UNEs are included in the rates adopted by the Commission in its Cost Orders and are reflected in the rates contained in Exhibit AJV-1 to Mr. Varner's testimony (Hearing Exhibit #10).

Upon consideration of this issue and the positions of the parties, the Commission finds that its previous Costs Orders in Docket No. 97-374-C are controlling. The Commission finds that its previously approved UNE rates should apply to the new interconnection agreement. In Docket No. 97-374-C, the Commission, in establishing the installation price of the UNE, found it appropriate to allow recovery of the disconnect costs. The Commission does not believe that the present arbitration proceeding is the proper forum for challenging UNE rates previously established. The Commission finds that the rates in Docket No. 97-374-C were derived using TELRIC cost methodology and thus are appropriate.

Ordering Paragraph:

BellSouth is entitled to charge ITC^DeltaCom a disconnection charge in cases in which BellSouth incurs costs associated with such disconnection. Any applicable costs

to disconnect UNEs are included in the rates adopted by the Commission in Docket No. 97-374-C and should be incorporated into the parties' interconnection agreement.

Issue 6(d):
What should be the appropriate recurring and nonrecurring charges for cageless and shared collocation in light of the recent FCC Advanced Services Order No. FCC 99-48, issued March 31, 1999, in Docket No. CC 98-147?

ITC^DeltaCom Position:
Until BellSouth produces, and the Commission adopts, the results of a cost study for cageless collocation consistent with the FCC's TELRIC pricing rules, interim rates should be based on BellSouth's rates for virtual collocation with appropriate adjustments to remove costs associated with installation, maintenance and repair of ITC^DeltaCom's equipment.

BellSouth Position:
The Commission has previously determined, in Docket No. 97-374-C (generic UNE cost proceeding) the recurring and nonrecurring rates that are applicable for physical collocation, which are the same rates applicable to cageless and shared collocation. Thus, with respect to these previously determined rates, there is no need for further review. There are, however, some additional collocation elements that ITC^DeltaCom may request for such collocation: specifically, fiber cross-connects and fiber point of termination ("POT") bays. BellSouth has submitted cost studies and proposed rates for these elements, consistent with the Commission's Order in Docket No. 97-374-C. Finally, BellSouth is also proposing an interim rate for card key security access to collocation space, until such time as permanent rates can be established.

Discussion:

ITC^DeltaCom contends that BellSouth does not have rates for cageless and shared collocation. (Wood, Tr. Vol. 1 at 329) Thus, ITC^DeltaCom contends that until appropriate rates are adopted, BellSouth should use BellSouth's rates for virtual collocation with appropriate adjustments to remove costs associated with installation, maintenance and repair of ITC^DeltaCom's equipment. (Wood, Tr. Vol. 1 at 329-330)

BellSouth contends that the Commission adopted rates for physical collocation in Docket No. 97-374-C. According to BellSouth, BellSouth's physical collocation rates, as established by the Commission, appropriately apply to physical collocation whether an arrangement is enclosed (caged) or unenclosed (cageless) or whether collocation is shared. Mr. Varner testified that rates have been established for floor space on a per square foot basis and for power on a per amp basis. Cross-connect charges apply on a per connection basis, and entrance cable installation charges apply only if the CLEC requests such installation. Because BellSouth structured the physical collocation elements in such a manner, BellSouth contends that all of the piece parts required for cageless collocation have established rates. (Varner, Tr. Vol. 1 at 480)

BellSouth further testified that since Docket No. 97-374-C, CLECs have requested additional elements related to physical collocation, specifically wire cages and fiber cross-connects. BellSouth witness Varner explained that BellSouth did cost studies for these rates consistent with the Commission's cost orders in the generic UNE cost proceeding. (Varner, Tr. Vol. 1 at 480) According to BellSouth witness Ms. Caldwell, the cost studies presented by BellSouth reflect both recurring and nonrecurring costs. Recurring costs include both capital and non-capital costs. Capital costs are associated with the purchase of an item of plant, i.e. an investment. They consist of depreciation, cost of money, and income tax. Non-capital recurring costs are expenses associated with the use of an investment. These operating expenses consist of plant-specific expenses, such as maintenance, ad valorem taxes and gross receipts taxes. Nonrecurring costs are one-time expenses associated with provisioning, installing and disconnecting network

capability. These costs typically include five major categories of activity: service inquiries, service order, engineering, connect and test, and technician time. (Caldwell, Tr. Vol. 1 at 565)

Ms. Caldwell testified that the Commission should accept BellSouth's cost studies because the methodology is identical to that adopted by the Commission in the generic UNE cost proceeding. In that proceeding the Commission ruled that "BellSouth has submitted detailed cost studies, which we believe, as modified, comply with all applicable legal standards." (Order, Docket No. 97-374-C, at 40) Contrary to ITC^DeltaCom's position, Ms. Caldwell explained, the recent Supreme Court ruling does not alter the appropriateness of BellSouth's cost studies, because BellSouth adhered to the guidelines of a TELRIC study when it filed its cost studies in Docket No. 97-374-C. Specifically, Ms. Caldwell testified that BellSouth adhered to the following guidelines which are still in place:

- Costs should reflect forward-looking network architecture, engineering and materials and equipment;
- Costs should be developed individually for each unbundled network element;
- Costs should be based on the particular materials, equipment, and installation requirements associated with provisioning a specific unbundled network element, to the greatest extent possible;
- Costs should be developed on state-specific characteristics and data;
- Costs should be complete, reflecting the full costs of installation as well as the inclusion of shared and common costs. (Caldwell, Tr. Vol. 1 at 568-69)

Moreover, according to Ms. Caldwell, BellSouth incorporated the adjustments to BellSouth's inputs that the Commission ordered in Docket No. 97-374-C. BellSouth utilized a 10.86% cost of capital, the approved depreciation rates, and the Commission's 4.79% common cost factor. Furthermore, BellSouth used the adjusted fall-out factors of 5%. Thus, BellSouth contends that the cost studies filed by BellSouth in this proceeding comport with the adjustments the Commission ordered in the cost proceeding. (Caldwell, Tr. Vol. 1 at 570-71)

Additionally, Mr. Varner testified that it is necessary for BellSouth to offer an interim rate for Security Access System in order to meet the requirements of the FCC's recent Advanced Services Order as it relates to the provision of collocation. The Commission is aware that this security offering is an optional feature that the FCC has required. According to Mr. Varner, BellSouth proposes an interim rate, subject to true-up, equal to the rate approved by the Florida Public Service Commission on April 29, 1998, for Physical Collocation – Security Access System until a cost study for South Carolina can be completed. The proposed interim rate is contained in Exhibit AJV-1 (Hearing Exhibit No. 10). (Varner, Tr. Vol. 1 at 480)

For these reasons, BellSouth contends that the Commission should order the parties to adopt the rates for physical collocation previously established by the Commission in Docket No. 97-374-C for cageless and shared collocation. Moreover, BellSouth contends that the Commission should adopt the rates for wire cages and fiber cross connects proposed by BellSouth in this proceeding as well as adopt the interim rate proposed for Security Access. Finally, BellSouth contends that the Commission should

adopt for Security Access System an interim rate, subject to true-up, equal to the rate approved by the Florida Public Service Commission on April 29, 1998, for Physical Collocation – Security Access System until a cost study for South Carolina can be completed.

Upon consideration of this issue and the positions of the parties, the Commission finds it appropriate to use the elements of physical collocation established in Docket No. 97-374-C as the rates for cageless and shared collocation. The Commission finds these rates apply to physical collocation whether the collocation arrangement is caged or cageless or whether the collocation is shared as the rates have been established for floor space on a square foot basis and for power on a per amp basis. Further, the Commission finds that the rates proposed for wire cages and fiber cross connects should be approved as these rates were calculated using cost studies with methodology identical to that adopted by the Commission in the generic UNE cost proceeding. The Commission has previously found these studies to be TELRIC cost studies that comply with all federal and state regulations and orders. The Commission also finds the interim rate proposed by BellSouth for the Security Access System to be reasonable and adopts the interim rate, subject to true-up upon completion of a cost study for South Carolina.

Ordering Paragraph:

The parties shall adopt the rates for the elements of physical collocation previously established by this Commission in Docket No. 97-374-C as the rates for cageless and shared collocation, and shall incorporate such rates into the parties' interconnection agreement. The parties shall also adopt BellSouth's proposed rates for

wire cages and fiber cross connects. Further for Security Access System, the parties shall utilize as an interim rate, subject to true-up upon completion of a cost study for South Carolina, the rate approved by the Florida Public Service Commission on April 29, 1998, for Physical Collocation – Security Access System.

Issue 6(e):
Should BellSouth be permitted to charge for ITC^DeltaCom conversions of customers from resale to unbundled network elements? If so, what is the appropriate charge?

ITC^DeltaCom Position:
BellSouth should be required to convert a customer's bundled local service to an unbundled element or service and assign such unbundled element or service to ITC^DeltaCom with no penalties, rollover, termination or conversion charges to ITC^DeltaCom or the customer.

BellSouth Position:
BellSouth is not obligated under the Act or FCC rules to convert a CLEC's customer from resale to UNEs at no cost. BellSouth is entitled to recover its reasonable costs if it performs this function. More importantly, ITC^DeltaCom, and other CLECs, should not be permitted to convert resale service to UNEs because this conversion would in essence require BellSouth to provide a combination of UNEs, which the Act does not obligate it to provide. Moreover, the UNEs that ILECs must provide on an individual, much less combined basis will not be defined until the FCC all parts of completes its Rule 319 proceeding.

Discussion:

ITC^DeltaCom contends that it is entitled to convert any services it purchased as resale services to individual UNEs for no charge. (Wood, Tr. Vol. 2 at 255 – 256) ITC^DeltaCom further contends that if BellSouth is permitted to charge for this conversion, the rate must be cost-based. (Wood, Tr. Vol. 2 at 255) BellSouth contends that contrary to what ITC^DeltaCom is seeking in this proceeding, a CLEC cannot convert resale service to individual UNEs; rather, the resale service would be converted

to a *combination* of UNEs. BellSouth contends that it is not obligated under the Act to combine UNEs for CLECs at the sum of the individual UNE prices. According to BellSouth, converting resale to combined UNEs at the sum of the UNE prices simply would be an end run around the Act's division between resale and UNEs and would create an unjustified windfall for the CLEC. (Varner, Tr. Vol. 1 at 481) After the Rule 319 proceeding,[2] when the individual UNEs are defined, resold services that are converted to UNE combinations will, by definition, recreate a BellSouth retail service. According to BellSouth, UNE combinations that replicate resale should be priced at resale rates. In summary, Mr. Varner testified that if ITC DeltaCom wants "individual UNEs, they could buy them. There's no such thing as converting in that case." (Varner, Tr. Vol. 2 at 258)

Upon consideration of this issue and the positions of the parties, the Commission concludes that there may be instances where a customer may be properly converted from resale to a UNE based platform. When such a conversion occurs, there may, or may not, be network changes associated with the conversion. BellSouth is entitled to recover its reasonable costs incurred in converting the customer from resale to unbundled network elements Where there are no network changes associated with the conversion, the Commission is aware that there may be administrative costs for which BellSouth is entitled to recovery. Therefore, BellSouth should be allowed to recover administrative costs associated with a conversion where no network changes are required. If a

[2] The Commission is aware of the FCC's September 5, 1999, press release on the Rule 319 proceeding. The FCC's written order may impact this proceeding.

conversion requires network changes, BellSouth should be allowed recovery of the costs associatec with those network changes.

Ordering Paragraph:

If ITC^DeltaCom converts customers from resale to unbundled network elements and if no network changes are required, BellSouth should be allowed to recover its administrative costs associated with that conversion. If ITC^DeltaCom converts customers from resale to unbundled network elements and if network changes are required to make the conversion, BellSouth shall be allowed to recover the costs for the network changes.

Issue 7(b)(ii):
What procedures should be adopted for meet point billing?

ITC^DeltaCom Position:
MECAB and MECAD methods do not require ITC^DeltaCom to file NECA FCC Tariff No. 4 and thus ITC^DeltaCom should not be required to accept BellSouth's proposed default meet point billing parameters.

BellSouth Position:
BellSouth seeks to have ITC^DeltaCom conform with the standard industry procedures, to the extent possible, that have been in place for ILECs and IXCs since 1986. These procedures are documented in the Multiple Exchange Carrier Access Billing ("MECAB") and Multiple Exchange Carrier Ordering Document ("MECOD"), each of which was developed by the Ordering and Billing Forum ("OBF") and are contained in the OBF Guidelines.

Alternatively, BellSouth proposes that default parameters be used in lieu of the National Exchange Carriers Association ("NECA") FCC Tariff No. 4 which is the foundation for the MECAB and MECOD methods. Under this proposal, all meet point arrangements will be billed on a multi-tariff, multi-bill method with the border interconnection percentage ("BIP") fixed at 95% BellSouth and 5% ITC^DeltaCom. The interim method would be discontinued once ITC^DeltaCom becomes a member of NECA and begins to use the NECA infrastructure (e.g. MECAB and MECOD methods) or when the industry develops a (better) alternative solution.

Discussion:

The parties agree that the only issue regarding meet point billing that remains between the parties is the means by which the parties will notify other interconnecting companies of the meet point billing arrangements made between BellSouth and ITC^DeltaCom. Meet point billing arrangements are the means by which companies inform other interconnecting carriers of the terms of the companies' interconnection arrangement. In other words, if both BellSouth and ITC^DeltaCom are providing services to AT&T, AT&T needs a means by which it can verify its bill for those services and confirm the division of services between ITC^DeltaCom and BellSouth. (Scollard, Tr. Vol. 1 at 597-98) Over the years, the industry has used the infrastructure surrounding the NECA FCC Tariff No. 4 to provide the requisite information. (Scollard, Tr. Vol. 1 at 598)

ITC^DeltaCom contends that it should not be required to become a member of NECA in order to conduct meet point billing. ITC^DeltaCom contends such an arrangement is not necessary because ITC^DeltaCom does not jointly provide dedicated facilities with BellSouth. (Moses, Tr. Vol. 2 at 264) BellSouth contends that ITC^DeltaCom's proposal is unworkable because the relevant issue is how a third party will find out the terms of the arrangement between BellSouth and ITC^DeltaCom; the terms of the actual arrangement between BellSouth and ITC^DeltaCom are irrelevant to this issue. (Scollard, Tr. Vol. 2 at 265) According to BellSouth, the MECAB and MECOD methods are based on the industry guidelines and will efficiently handle the information needs of all impacted companies. BellSouth believes that ITC^DeltaCom's

refusal to become a member of NECA will create a myriad of administrative complications. In an effort to compromise, however, BellSouth has proposed to ITC^DeltaCom an interim arrangement that can be used in lieu of NECA processes. As explained by BellSouth witness Scollard, under this proposal all meet point arrangements will be billed based on a multi-tariff, multi-bill method with the border interconnection percentage ("BIP") fixed at 95% BellSouth and 5% ITC^DeltaCom. Under this proposal, all impacted companies will have a reasonable opportunity to have the information necessary to validate the bills received from both BellSouth and ITC^DeltaCom. BellSouth testified that this interim method would be discontinued once ITC^DeltaCom begins to use the NECA infrastructure or when the industry develops an alternative solution. (Scollard, Tr. Vol. 1 at 598-99)

BellSouth contends that ITC^DeltaCom's refusal to conform to industry practice will not just impact its relationship with BellSouth, but will impact the business of all the carriers who do business with both BellSouth and ITC^DeltaCom. For these reasons, BellSouth asked the Commission to order ITC^DeltaCom to accept BellSouth's proposals for meet point billing.

Upon consideration of this issue and the positions of the parties, the Commission finds that meet point billing is not necessary. The record establishes that ITC^DeltaCom provides 100% of the transport facilities to the BellSouth tandem. Therefore, the meet point billing percentage is 100% ITC^DeltaCom and 0% BellSouth. Thus the Commission concludes there is no need to adopt procedures for transport meet point billing in the interconnection agreement.

Ordering Paragraph:

The Commission finds that there is no need to file meet point billing percentage. Since ITC^DeltaCom provides 100% of the transport facilities to the BellSouth tandem, there is no need to adopt meet point billing procedures in the interconnection agreement.

Issue 7(b)(iv):
Which party should be required to pay for the Percent Local Usage (PLU) and Percent Interstate Usage (PIU) audit, in the event such audit reveals that either party was found to have overstated the PLU or PIU by 20 percentage points or more?

ITC^DeltaCom Position:
The party seeking the audit should pay under all circumstances.

BellSouth Position:
BellSouth agrees that the party requesting an audit should be responsible for the costs of the audit, except in the event the audit reveals that either party is found to have overstated the PLU or PIU by 20 percentage points or more, in which case that party should be required to reimburse the other party for the costs of the audit. This proposal does not constitute a penalty because the costs are those actually incurred in performing the audit.

Discussion:

ITC^DeltaCom contends that in all cases, the party that requests an audit should be the party that pays for the audit. (Rozycki, Tr. Vol. 2 at 267) BellSouth contends that a party who overstates the PLU or PIU by 20 percentage points or more should pay for the cost of the audit. (Varner, Tr. Vol. 2 at 268) BellSouth contends that its proposal is supported by industry practice. Mr. Varner testified that PLU and PIU reporting are an integral part of parties' interconnection with one another's networks, and is done essentially on the honor system. In an ideal world, according to BellSouth, neither party would need to audit the reports of the other. BellSouth contends that if, however, one

party overstates PLU or PIU by more than 20 percentage points, questions about reliability and good faith are raised. In those circumstances, according to BellSouth, audits will need to be conducted and costs will be incurred. BellSouth testified that those costs should be paid by the cost causer, i.e. the party that overstates the PLU or PIU. BellSouth contends that this proposal is not, as ITC^DeltaCom contends, akin to a penalty provision because BellSouth is proposing only that actual costs incurred be reimbursed. Mr. Varner testified that BellSouth is not seeking to impose a deterrent in the form of a punitive payment on ITC^DeltaCom. (Varner, Tr. Vol. 1 at 482) Thus, according to BellSouth, its proposal is not improper.

Upon consideration of this issue and the positions of the parties, the Commission concludes that the position espoused by BellSouth is reasonable. The Commission finds it reasonable that the party which requests the audit to pay for the audit. Furthermore, the Commission concludes that the provision that requires a party who overstates the PLU or PIU by more than 20 percentage points to be fair and reasonable in light of the fact that PLU and PIU reporting is done so on the honor system. The Commission finds that this position is not a penalty provision for poor performance as suggested by ITC^DeltaCom. This position of requiring a party who overstates the PLU or PIU by more than twenty percentage points is not intended as punitive but is intended to encourage the parties to accurately and honestly make their accounting reports.

Ordering Paragraph:

The Commission orders that the party seeking the audit of PLU or PIU reporting will pay for the audit, except that if the audited party is found to have overstated the PLU or PIU by 20 percentage points or more, the audited party will pay for the audit.

Issue 8(b):
Should the losing party to an enforcement proceeding or proceeding for breach of the interconnection agreement be required to pay the costs of such litigation?

ITC^DeltaCom Position:
The losing party to an enforcement proceeding or proceeding for breach of the interconnection agreement should pay the costs of such litigation to ensure that frivolous lawsuits are not brought and to deter BellSouth from gaming the regulatory process by forcing ITC^DeltaCom to bring enforcement actions at its own expense.

BellSouth Position:
This issue is not appropriate for arbitration. The Act does not address, much less discuss, fee provisions. There is no statutory obligation for BellSouth to agree to a "loser pays" arrangement, and thus the issue should not be arbitrated. Moreover, the inclusion of a "loser pays" provision would have a chilling effect on both parties to the agreement to the extent that even meritorious claims may not be filed.

Discussion:

ITC^DeltaCom contends that the agreement should include an attorneys' fee provision that obligates the losing party in an enforcement proceeding to pay the fees of the prevailing party. (Rozycki, Tr. Vol. 2 at 270) Mr. Rozycki stated that a "loser pays" provision will prevent a party from filing frivolous lawsuits or complaints. (Rozycki, Tr. Vol. 2 at 270) According to BellSouth, a "loser pays" provision would have a chilling effect on claims before state commissions. BellSouth believes that with the current uncertainty in the regulatory and legal landscape, there are often questions of interpretation and enforcement in which state commissions should be involved. (Varner,

Tr. Vol. 2 at 271) Moreover, according to BellSouth, often there is no clear winner or loser in regulatory proceedings, so that a "loser pays" provision would in all likelihood do no more than generate additional litigation over who should pay the attorneys' fees. (Varner, Tr. Vol. 1 at 483-4)

BellSouth states that it will agree to appropriate language regarding jurisdictional issues that would allow the parties to seek damages under the Agreement from the courts. BellSouth contends that the parties should agree at the time they execute the interconnection agreement the forum in which disputes will be resolved. Such language is standard contract language which gives the parties certainty as to how and where disputes will be resolved. As explained by Mr. Varner, these provisions help prevent the potential for "forum shopping" as well as the potential for inconsistent decisions under the agreement. (Varner, Tr. Vol. 1 at 483-4)

Upon consideration of this issue and the positions of the parties, the Commission finds that a form of the "loser pays" provision should be included. Therefore, the Commission concludes that the proper "loser pays" provision should include language that the "loser pays" only in those cases where the outcome is clear and there is a clear winner in the proceeding. The Commission believes that the provision as adopted herein will have the desired effect of thwarting frivolous litigation but will not have the chilling effect on claims before state commissions as suggested by BellSouth.

Ordering Paragraph:

The Commission directs the parties to include a "loser pays" provision in the interconnection agreement, but the provision should include the caveat that the "loser pays" only in those cases where the outcome is clear and there is a clear winner and loser.

Issue 8(e):
Should language covering tax liability be included in the interconnection agreement, and if so, should that language simply state that each Party is responsible for its own tax liability?

ITC^DeltaCom Position:
Language covering tax liability is not necessary in the interconnection agreement. If such language must be included, the language should specify that the parties implement the contract consistent with applicable tax laws. Each party should bear its own tax liability.

BellSouth Position:
Tax issues are not addressed in Sections 251 or 252 of the Act. Thus, this issue is not subject to arbitration under Section 252 of the Act. If the Commission chooses to address this issue, the Commission should order that the parties include language in the agreement that clearly defines the respective duties of each party in the handling of tax issues

Discussion:

ITC^DeltaCom contends that it is unnecessary to have tax language in the interconnection agreement. (Rozycki, Tr. Vol. 2 at 272) It further contends that if the Commission deems such language appropriate, the language should be simple and require only that each party should obey all applicable tax laws and bear its own tax liability. BellSouth contends that neither Sections 251 nor 252 of the Act address tax liability and that consequently, this issue should be left to negotiation by the parties and should not be arbitrated. BellSouth contends that if the Commission chooses to address this issue, it

should order the parties to include language in the agreement that clearly defines the respective duties and obligations of each party with respect to tax issues. (Varner, Tr. Vol. 2 at 273) BellSouth contends that its proposed tax language is based on its experiences with tax matters and liability issues in connection with the parties' obligations under interconnection agreements.

Upon consideration of this issue and the positions of the parties, the Commission concludes that each party should be responsible for its own tax liability. The Commission believes that tax liability should be assessed outside the interconnection agreement, but if the parties desire a provision in the interconnection agreement, the provision should simply provide that each party will be responsible for its own tax liability.

Ordering Paragraph:

The Commission orders that a provision regarding tax liability in the interconnection agreement, if any, should simply require each party to be responsible for its own tax liability.

Issue 8(f):
Should BellSouth be required to compensate ITC^DeltaCom for breach of material terms of the contract?

ITC^DeltaCom Position:
ITC^DeltaCom seeks performance penalties from BellSouth when BellSouth fails to meet certain performance benchmarks.

BellSouth Position:
This issue is not appropriate for Section 252 arbitration. Moreover, the South Carolina Commission has previously determined that it "lacks the jurisdiction or legislatively-granted authority to impose penalties or fines" in the context of an arbitration proceeding. Finally, ITC^DeltaCom's proposal represents a supplemental

enforcement scheme that is inappropriate and unnecessary. ITC^DeltaCom has adequate legal recourse in the event BellSouth breaches its interconnection agreement. For further information, see BellSouth's position on Issue 1(a).

Discussion:

ITC^DeltaCom requests inclusion in the interconnection agreement of a provision that recognizes a material breach of the interconnection agreement will give rise to liability. According to Mr. Rozycki, this provision is related to ITC^DeltaCom's proposed performance guarantees and will compensate ITC^DeltaCom for BellSouth's failure to comply with the interconnection agreement, particularly for a failure to comply with performance measurements. (Rozycki, Tr. Vol. 2 at 276) BellSouth contends that the issue of compensation for breach of contract, penalties or liquidated damages is not appropriate for arbitration. According to BellSouth, neither Section 251 nor 252 of the Act obligate BellSouth to pay penalties for a breach of the interconnection agreement. Moreover, BellSouth contends that the Commission has already found that it "lacks the jurisdiction to impose penalties or fines" in the context of an arbitration proceeding. (*See* Order No. 97-189, Docket No. 96-358-C (AT&T arbitration), 3/10/97, at 6). Even if the Commission could award penalties, BellSouth contends that the incorporation of ITC^DeltaCom's proposal into the agreement is unnecessary. According to BellSouth, South Carolina law and Commission procedures are available and are adequate to address any breach of contract situation should it arise. (Varner, Tr. Vol. 1 at 486)

Upon consideration of this issue and the positions of the parties, the Commission adopts BellSouth's position as appropriate. This Commission has previously found in this Order, as well as in a previous arbitration order (*See* Order No. 97-189, Docket No. 96-

358-C, March 10, 1997, at 10) that it lacks jurisdiction to impose penalties. In his testimony before the Commission, Mr. Rozycki referred to the compensation from this provision as "penalties." (Rozycki, Tr. Vol. 2 at 277) Further, the Commission believes that South Carolina law and Commission procedures are adequate to address any breach of contract issues that arise and provide the proper redress to ITC^DeltaCom should a breach of the interconnection agreement occur. Therefore, the Commission declines to require a provision in the interconnection agreement that requires BellSouth to compensate ITC^DeltaCom for breach of material terms of the contract.

Ordering Paragraph:

As the Commission has determined that it lacks jurisdiction to impose penalties or fines in the context of an arbitration proceeding and as South Carolina law and Commission procedures adequately address any breach of contract issues that arise, the Commission will not require inclusion of the requested provision in the interconnection agreement.

IV. CONCLUSION

This Order is enforceable against ITC^DeltaCom and BellSouth. BellSouth affiliates which are not incumbent local exchange carriers are not bound by this Order. Similarly, ITC^DeltaCom affiliates are not bound by this Order. This Commission cannot force contractual terms upon a BellSouth or ITC^DeltaCom affiliate which is not bound by the 1996 Act.

This Order shall remain in full force and effect until further Order of the Commission.

IT IS SO ORDERED.

BY ORDER OF THE COMMISSION:

Philip T. Bradley
Chairman

ATTEST:

Gary E. Walsh
Executive Director

(SEAL)

REQUEST: In the direct testimony of David P. Scollard, page 5, beginning at line 7, he states that "BellSouth has not been able to obtain the ISP numbers used by ALECs in generating bills sent to BellSouth." What ALECs has BellSouth specifically asked to provide such information and when?

RESPONSE: On many occasions, BellSouth has requested that ALECs provide the telephone numbers that ALECs are using to serve ISPs. Many of these occasions were not documented and can not be recalled. However, several specific examples of this are as follows:

XXXXXX - January, 2001 (some telephone numbers provided)
XXXXXX – (2000) Indicated that it did not serve ISPs.
XXXXXX – (1998) Indicated that they served no ISPs
XXXXXX – (1999) - Refused to provide list of ISP numbers.
XXXXXX – (1998) Refused to provide ISP numbers.
XXXXXX – (1998) Refused to provide ISP numbers.

RESPONSE PROVIDED BY:

David Scollard
Manager
600 N 19th St.
Birmingham, AL 35203

REQUEST: In the direct testimony of David P. Scollard, page 5, beginning at line 13, he contends that ALECs should be required to provide BellSouth with ISP telephone numbers.

a) Does BellSouth know which numbers it serves are ISP numbers?
b) If the response to (a) is negative, by what means do you believe it would be appropriate to obtain such information?

RESPONSE:

a) Yes. However, since ISPs order the same services that are provided to BellSouth's end users, it is impossible to determine from BellSouth's own records which of the services are being used to provide ISP service to end users and which are not. Therefore, BellSouth obtains these numbers by searching the internet and recording the numbers that are found into a database. A more accurate, efficient and timely method would be for the ISP to provide notice of those facilities being used to provide ISP service to end users.
b) See response to (a) above.

RESPONSE PROVIDED BY:

David Scollard
Manager
600 N 19th St.
Birmingham, AL 35203

REQUEST: In the rebuttal testimony of AT&T witness Lee Selwyn, page 28, line 5, he contends that the methodology suggested by witness Scollard for determining what traffic is ISP traffic based solely on the average call duration.

a) Does BellSouth agree with witness Selwyn's statement?
b) In determining whether traffic of long duration is in fact ISP traffic, does BellSouth take any steps to verify that that is the case?
c) If the response is affirmative, please describe the actions taken by BellSouth.
d) Once BellSouth determines that a particular phone number is assigned to an ISP, what action is take by BellSouth to determine whether that number assignment has changed, or whether it is still an ISP number?

RESPONSE: a) No. BellSouth is advocating a process by which each call, regardless of duration, is identified as being a call to an ISP provider by accessing a database which contains the telephone numbers used by ISPs to provide service to their customers.
b) For billing purposes, BellSouth does not use the duration of calls to identify the traffic as being an ISP call. For purposes of verifying reciprocal compensation charges on invoices sent by ALECs to BellSouth, BellSouth estimates the amount of ISP traffic contained on those invoices by looking at average call durations for entire NPA-NXX's belonging to the ALECs.
c) The call patterns for known ISP numbers are studied to validate that the thresholds used to estimate ISP traffic by NPA/NXX are reasonable.
d) Periodically, BellSouth goes back through its list of telephone numbers to insure that these numbers are still being used by ISPs by searching the internet and by placing test calls to analyze the tones returned as the call is made.

RESPONSE PROVIDED BY: David Scollard
Manager
600 N 19th St.
Birmingham, AL 35203

REQUEST: In the rebuttal testimony of David P. Scollard, page 2, beginning at line 19 and continuing on page 3, he describes situations in which "line level information" is reported and made accessible to other local service providers.

a) Please define "line level information."
b) In any of the examples discussed, does the mechanism use rely upon information provided by end users regarding the purpose for which they used the service they obtain from the LECs?

RESPONSE:

a) Line level information would be data associated with a particular telephone number being served by a Local Exchange Company (LEC) or Interexchange Company (IXC). Examples of this type of information would be type of facility, the LEC serving the telephone number, whether the telephone number has authorized collect or third number calls be placed against the number, the Location Routing Number in the case of ported numbers, etc.
b) Yes. In the case of the data base supporting calling card and collect calling, the end user provides the information as to whether or not the telephone number is to be used to support these services. In addition, the newly developed database described on page 3 of Mr. Scollard's rebuttal testimony will contain information describing how a local exchange carrier or wireless carrier uses its facilities (or the facilities of another carrier) to provide end user services. For example, an ALEC will indicate whether it is providing local service to an end user via resold facilities or unbundled network elements. In the same manner, an ISP could indicate whether it is using the facilities ordered by BellSouth to provide an ISP service to end users.

RESPONSE PROVIDED BY: David Scollard
Manager
600 N 19th St.
Birmingham, AL 35203

REQUEST: In the rebuttal testimony of David P. Scollard, page 3, beginning at line 20, he states, "Since the beginning of local competition there has been an ever-increasing need for each carrier to provide information about the customers it serves." Please provide an example of an instance, other than ISP traffic, where a customer is required to provide information about the purpose to which it puts a telecommunications service for your use or for provision to another carrier.

RESPONSE: See BellSouth's reply to Staff's 1st Set of Interrogatories Item No. 4b.

RESPONSE PROVIDED BY:

David Scollard
Manager
600 N 19th St.
Birmingham, AL 35203

REQUEST: In the direct testimony of Beth Shiroishi, page 9, beginning at line 15, she states, "In accordance with the Act, the purpose of reciprocal compensation is to ensure that each carrier involved in carrying a local call compensated for its portion of that call." Please provide the cite for the document to which witness Shiroishi is referring.

RESPONSE: Section 251(b)(5) of The Act prescribes reciprocal compensation for the transport and termination of telecommunications. Section 252(d)(2)(A) discusses charges for transport and termination of traffic.

Paragraphs 1027 through 1040 of the FCC's August 1996 Local Interconnection Order (CC Docket No. 96-98) address these specific portions of the Act.

RESPONSE PROVIDED BY:

Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: In the direct testimony of Beth Shiroishi, page 9, beginning at line 21, she describes the diagrams in exhibit ERAS-2. Do these diagrams presume that an ISP is a carrier rather than an end user? If the response is affirmative, what is the basis for this presumption?

RESPONSE: The diagram does not presume the ISP to be a carrier or an end user. The diagram is merely illustrating that the ISP uses the LEC's network in the same manner that an IXC does. The testimony describing the diagrams makes clear that due to the access charge exemption, the LEC is compensated for the access service it provides to the ISP by the business rates it charges the ISP.

RESPONSE PROVIDED BY:

Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: Refer to exhibit ERAS-2

a) In Diagrams C and D, would the calls depicted terminate with another end user, as shown in Exhibit ERAS-1?
b) If the response to (a) is affirmative, why is the other end user excluded from the diagram?

RESPONSE: a) The calls would go on to an ultimate destination, an end user in the Diagram C, and most probably a website in Diagram D.
b) The end user and World Wide Web are excluded because the diagram is illustrating inter-carrier compensation. The meaning behind the diagram would not change if an end user were shown on the other end of Diagram C or website on the other end of Diagram D.

RESPONSE PROVIDED BY:

Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: In the direct testimony of Beth Shiroishi, page 10, beginning at line 14, she discusses host computers. Later, at line 18, she discusses Internet websites.

a) Is a host computer an end user?
b) In an Internet website an end user?
c) If the response is affirmative to either a) or b), please state authoritative support for BellSouth's position.

RESPONSE: a) No.
b) No, but it is the ultimate destination of the call.
c) N/A.

RESPONSE PROVIDED BY:

Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: In the direct testimony of Beth Shiroishi, page 21, beginning at line 17, she states that "In fact, the payment of reciprocal compensation for ISP-bound traffic discourages the deployment of any technology that does not generate reciprocal compensation."

a) Does xDSL traffic generate reciprocal compensation? In formulating your response, please consider whether xDSL may be used for purposes other than Internet service.
b) If the response to (a) is negative, do you believe ISPs are discouraged from offering xDSL because it is not subject to reciprocal compensation?

RESPONSE: a) The portion of the DSL service which is not the high frequency spectrum portion of the service could generate reciprocal compensation when a local call is completed over it which was sent to another carrier's network. The high frequency spectrum portion of the service is provided over a dedicated facility, and therefore would not generate reciprocal compensation.
b) ISPs are not necessarily discouraged from offering xDSL. However, ALECs who base a large portion of their business plan on obtaining reciprocal compensation from dial-up ISP-bound traffic may be discouraged from deploying xDSL.

RESPONSE PROVIDED BY: Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: In the rebuttal testimony of Beth Shiroishi, page 4, line 2, she states "A dial-up call to an ISP is an information service." Please clarify whether the dial-up call is an information service or whether the service the ISP provides is an information service.

RESPONSE: The two are inseparable: the provision of the enhanced ISP service is provided via the dial-up call.

RESPONSE PROVIDED BY:

Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: If an end user calls an ISP located in an area where EAS charges apply, such as twenty-five cent plan charges, will that end user be charged the EAS charge for the call?

RESPONSE: BellSouth's end user customers are billed EAS charges in accordance with BellSouth's approved tariffs.

RESPONSE PROVIDED BY:

Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: In the rebuttal testimony of Beth Shiroishi, page 4, line 4, line 8, she refers to the 1983 access charge exemption. Please provide the cite for the document to which she is referring.

RESPONSE: *In the Matter of MTS and WATS Market Structure, CC Docket No. 78-72, Phase I* (Released August 22,1983). Additionally, the Introduction to the July 17, 1987 Notice of Proposed Rulemaking (*In the Matter of Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers, CC Docket No. 87-215*) described the 1983 access charge exemption.

RESPONSE PROVIDED BY: Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: In the rebuttal testimony of Beth Shiroishi, page 5, line 24, she refers to some potential differences in switching equipment used. Please describe the differences to which she is referring.

RESPONSE: An ALEC choosing to exclusively serve ISPs could deploy scaled-down switches, often referred to as "softswitches." These switches do not have all the features and functionalities of a traditional switch, but are instead designed exclusively to funnel dial-up traffic to ISPs. The cost of these "softswitches" is dramatically less than conventional switches.

RESPONSE PROVIDED BY:

Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: If the FCC issues an order that is permissive with regard to any mechanism it prescribes for ISP traffic compensation, that is, an order which allows states to determine how termination of ISP traffic should be compensated, what action does BellSouth believe this Commission should take?

RESPONSE: This Commission should continue on with this Docket and find that bill-and-keep is the appropriate compensation mechanism for ISP-bound traffic.

RESPONSE PROVIDED BY:

Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: In the rebuttal testimony of Beth Shiroishi, page 7, beginning at line 15, she contends that "local exchange monthly rates paid by end user customers were never intended to recover costs associated with providing access service and were established long before the Internet became popular."

a) Have new services, such as Caller ID, come about since the establishment of the access charge exemption for information services?
b) If the response to (a) is affirmative, is your company permitted to increase rates on those services in Florida?
c) Please provide a comparison between the average revenue received from local service per residential customer in 1983 and the average revenue per local customer received today. In formulating your response, please consider that a customer may have more than one access line. Please provide by account, and by access line, if possible.

RESPONSE: a) Yes.
b) BellSouth is permitted to increase rates 6% per year on non-basic service offerings.
c) See attached.

RESPONSE PROVIDED BY:

Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

Tom Lohman
Director
675 West Peachtree Street
Atlanta, GA 30375

BellSouth Telecommunications, Inc.
FPSC Docket No. 000075-TP
Staff's 1st Set of Interrogatories
January 30, 2001
Item No. 16 c

ATTACHMENT

BellSouth Telecommunications, Inc.
FPSC Docket No. 000075-TP
Staff's 1st Set of Interrogatories
January 20, 2001
Item No. 16c
Attachment

COMPARISON OF AVERAGE REVENUE RECEIVED FROM LOCAL SERVICE PER RESIDENTIAL CUSTOMER FOR 1983 AND 2000

Account	Description	1983	Average Rev per Tot Access Line ***	2000	Average Rev per Tot Access Line ***	Average Rev per Access Line Excl 2nd lines
5001	Basic Area	$ 509,440,436	$ 12.23	$ 570,205,484	$ 10.12	$ 12.46
5002	Optional Extended Area	*		103,219,734	$ 1.83	$ 2.26
5050, 5060	Other Excluding Vertical Services	57,524,862	$ 1.38	77,464,822	$ 1.37	$ 1.69
5060.1200	Vertical Services	*		430,313,833	$ 7.64	$ 9.40
Total		566,965,298	$ 13.61	$ 1,181,203,873	$ 20.96	$ 25.81
Total Residence Access Lines including additional lines		3,472,344	**	4,696,566		
Total Residence Access Lines excluding additional lines				3,813,839		

* Optional extended area and vertical services for 1983 are not identified separately and were included with basic area and other.

** Second lines are not identified separately and are included in 1983 access lines.

*** Revenues for 1983 and 2000 includes revenue from second lines.

REQUEST: How may arbitrations and complaints between BellSouth and other parties regarding ISP traffic have been brought before the Florida Public Service Commission? Please list them by docket number.

RESPONSE: Pending Dockets before the FPSC are:

Complaints

Florida Docket Nos. 971478/980184/980495-TP/980499-TP
Florida Docket No. 981008-TP
Florida Docket No. 990874-TP
Florida Docket No. 991267-TP
Florida Docket No. 991534-TP
Florida Docket No. 001810-TP

Arbitrations

Florida Docket No. 990691-TP
Florida Docket No. 990750-TP
Florida Docket No. 991220-TP
Florida Docket No. 991854-TP
Florida Docket No. 000636-TP
Florida Docket No. 000649-TP
Florida Docket No. 000828-TP
Florida Docket No. 000907-TP
Florida Docket No. 001568-TP
Florida Docket No. 010098-TP

RESPONSE PROVIDED BY: Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: In the rebuttal testimony of Beth Shiroishi, page 12, line 11, she states that "a LEC could deploy less costly switches that are used exclusively for ISP-bound traffic."

a) Please describe the less costly switches that are referred to in the testimony.
b) Does BellSouth use less costly switches to route ISP traffic to its affiliate, BellSouth.net?
c) Please provide a comparison of the difference in costs between such less costly switches and the switches used for other circuit-switched traffic.

RESPONSE: a)PSX6000/GSX9000, Lucent 7RE, and Cisco's Media Gateway are examples of Softswitches. Nortel CVX1800, Lucent MaxTNT, and Cisco 5300 and 5400 are examples of Remote Access Switching equipment.
b) No. BellSouth has begun research about the possibility of using some of these type switches in our architecture. However, BellSouth faces the challenge of having to integrate this into our existing network and of having to serve all type of customers. As such, BellSouth has not at this time determined whether or not it will be able to utilize such architecture.
c) Since BellSouth has not utilized this type architecture, we do not have cost data. Attached, however, is an ex parte recently filed with the FCC. The ex parte includes a report prepared by analysts at Morgan Stanley Dean Witter which focuses on Pac-West Telecom and includes information on such switching costs.

RESPONSE PROVIDED BY: Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

BellSouth Telecommunications, Inc.
FPSC Docket No. 000075-TP
Staff's 1st Set of Interrogatories
January 20, 2001
Item No. 18
ATTACHMENT

RECEIVED

FEB 1 2001

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

BELLSOUTH

EX PARTE OR LATE FILED

BellSouth
Suite 900
1133 21st Street, N.W.
Washington, D.C. 20036-3351

robert.blau@bellsouth.com

Robert T. Blau, Ph.D., CFA
Vice President-Executive and
Federal Regulatory Affairs

202 463-4108
Fax 202 463-4631

February 1, 2001

21A

EX PARTE

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
The Portals
445 12th Street, S.W., Room TWB-204
Washington, D.C. 20554

Re: CC Docket No. 99-68

Dear Ms. Salas:

Today I sent the attached letter to Dorothy Attwood, Chief of the Common Carrier Bureau. I, along with Gary Phillips from SBC and Whit Jordan from BellSouth, also met with Glenn Reynolds, Tamara Preiss, Adam Candeub and Rodney McDonald from the Common Carrier Bureau and discussed the contents of the attached letter with them.

In accordance with Section 1.1206(b)(1), I am filing two copies of this notice in the docket identified above. If you or your staff have any questions, please do not hesitate to call me.

Sincerely,

Robert T. Blau

Attachment

cc: Dorothy Attwood
Glenn Reynolds
Tamara Preiss
Adam Candeub
Rodney McDonald
Kyle Dixon
Rebecca Beynon
Jordan Goldstein
Denna Shetler
Jack Zinman

Received 0+1
DOCE

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BELLSOUTH

BellSouth
Suite 900
1133-21st Street, N.W.
Washington, D.C. 20036-3351

robert.blau@bellsouth.com

Robert T. Blau, Ph.D., CFA
Vice President-Executive and
Federal Regulatory Affairs

202 463-4188
Fax 202 463-4631

February 1, 2001

Ms. Dorothy Attwood
Chief, Common Carrier Bureau
Federal Communications Commission
Washington DC 20554

Dear Ms. Attwood:

I am writing, once again, on behalf of BellSouth, SBC, Verizon and Qwest about the unreasonableness of subjecting dial up Internet access traffic to reciprocal compensation payments. In discussing this matter with you and your staff, we have agreed that reciprocal compensation rates have declined significantly in some areas in the last year or so. Even so, continuing rapid growth of dial up Internet minutes has resulted in increased payments for this traffic. Coupled with rapidly declining costs of network facilities used by the CLECs to route Internet calls to ISP modem banks, these increases have produced ever greater economic inefficiencies and distortions that will surely persist unless and until the Commission requires all carriers to recover costs they incur in routing dial up Internet traffic from their own customers.

Quite understandably, you and your staff have urged that we document the latter assertion and to make that information available to the Commission. As we have explained, doing so has been difficult largely because the costs at issue belong to the CLECs who, of course, have no interest in making these data publicly available.

That said, we wanted to bring your attention to the attached September 19, 2000 report prepared by Peter J. Kennedy and other securities analysts at Morgan Stanley Dean Witter that follow CLEC stocks. While the report focuses on Pac-West Telecom, it contains several general observations that are clearly germane to the on-going debate over reciprocal compensation. From our perspective, the following five are especially noteworthy

First, the Dean Witter analysis makes it abundantly clear that CLECs do not terminate dial up Internet calls. Rather, they simply route dial-up access traffic that they receive from ILEC customers to modem banks where those calls are converted from an analog to IP format and sent on to the Internet. The report also points out that increasing numbers of ISPs are outsourcing their modem banks to their respective CLECs in an effort to minimize capital requirements. In

these instances, the ISP effectively becomes a marketing or sales agent for Internet connections provided by a CLEC – all of which is illustrated in a simple and straightforward manner in Exhibit 7, "Anatomy of an Internet Subscriber." Even a cursory review of this material should conclusively demonstrate that dial up Internet traffic is clearly interstate in nature, and that intercarrier compensation arrangements for dial up Internet access traffic can and should be regulated under Sec. 201 of the Telecommunications Act. (See page 12)

Second, the report concludes, "rumors of the death of dial-up Internet access have been greatly exaggerated." Exhibit 9 shows the number of dial-up users increasing to 71 million subscribers in 2003 up from 51 million subscribers in 2000 – a 40 percent increase over the next three years. Exhibit 10 in turn, implies that growth in dial up minutes *per CLEC line/port* will increase by 75 percent over the next three years. The authors attribute this growth to: 1) the emergence of free ISPs such as NetZero, 2) corporate subsidizing of the Internet (e.g., Delta Airlines giving all employees a home PC and an Internet connection), 3) declining PC prices, 4) the proliferation of new applications and 5) the customers' inability to access broadband services. While this forecast is on the low-end of other analyst forecasts (which we have provided to you in prior ex partes). it still reinforces that there is no support for the CLEC position that the spiraling growth in dial-up Internet minutes will vanish overnight. (See p. 13)

Third, the analysis corroborates our view that market forces will <u>not</u> reduce rates fast enough to resolve the reciprocal compensation problem at least in the foreseeable future. The reasons are twofold. The first has to do with widely held expectations that dial up access minutes will continue to grow rapidly at least over the next three years. The second reason relates to the fact that "technological changes and general capital cost reductions are offsetting reciprocal compensation declines in near term downward pricing trends. Soft-switch prices can be almost 70% cheaper than circuit-based technology." (See page p. 9)

Fourth, Exhibit 10 demonstrates that the CLECs are billing both the ISP and the ILECs for terminating dial up traffic at rates well above costs, and, therefore, many are reaping extraordinary profits on services rendered to the ISP. The pro forma analysis concludes, for instance, that in 2000 the annual internal rate of return (IRR) on basic dial up access services provided to a typical ISP worked out to about 357.1 percent. It also shows total capital expenditures on switching equipment used to route dial up Internet calls to ISP modems is presently being recovered in just 7.4 months even though that equipment has a useful economic life of six years!

Interestingly, data depicted in Exhibit 10 further indicate that the cost of CLEC switches typically works out to about $1.18 per port or line per month.[1] Assuming, as the Dean Witter analysts do, that each line carries about 12,000 dial Internet minutes per month (which we

[1] On Exhibit 10, the leased T-1 expenses apparently are for the facilities from the CLEC class 5 switch to the ISP modem bank (see Exhibit 7). Since these facilities are on the CLEC customer's side of the CLEC switch, the expenses for these facilities should be recovered from the CLEC's customers. The DS-3 Trunk (per line) expenses on Exhibit 10 apparently are for the facilities from the LEC tandem to the CLEC class 5 switch (see Exhibit 7). If these facilities connect a LEC tandem to a CLEC class 5 switch located within the LATA, the ILEC either provides these facilities to the CLEC or leases these facilities from the CLEC. In either event, the CLEC does not pay for these facilities. If these facilities connect a LEC tandem to a CLEC class 5 switch in a different LATA or state, then the CLEC leases the facilities from a provider other than the ILEC.

believe is an overly conservative estimate), the CLECs average switching costs for dial up traffic works out to about **$.0001 per minute** or about **2 to 5 percent** of current reciprocal compensation rates.

Finally, Dean Witter's analysis implies that even if the Commission immediately went to "bill and keep" for dial up Internet access traffic, a typical CLEC could still reduce monthly charges to its ISP customers from a current average of $17 per line down to $16.20 – or by nearly 5 percent – while maintaining a positive net present value (i.e., competitive rate of return) per subscriber assuming a 12 percent annual discount rate. This facet of the analysis is noteworthy because it clearly indicates that reciprocal compensation payments for dial up Internet traffic could be eliminated in their in their entirety without forcing the CLECs to raise per line charges to their ISP customers.

All in all the Dean Witter analysis corroborates what we have long held about the payment of reciprocal compensation for dial Internet access traffic. Such payments represent a totally unreasonable transfer of revenue from the ILECs to CLECs for reasons that have no basis in economics or the law. For these and several other reasons that we have discussed with you in recent months, the Commission needs to shut down this particular regulatory arbitrage without further delay.

If you or your staff have any questions about the attached analysis or need additional information, please do not hesitate to call me at your convenience.

Sincerely yours,

Bob Blau

Cc: Kyle Dixon
Rebecca Beyon
Jordan Goldstein
Denna Shetler
Glenn Reynolds
Jack Zinman
Tamara Preiss

MORGAN STANLEY DEAN WITTER

Equity Research

United States of America

Telecom - CLECs

Pac-West Telecomm

Reuters: PACW.O Bloomberg: PACW NASDAQ: PACW

Peter J. Kennedy
212 761-8033
peter.kennedy@msdw.com

Edings Thibault
212 761-6553
edings.thibault@msdw.com

Julie Moulds
212-761-6337
julie.moulds@msdw.com

Price (September 12, 2000):	$14.44
Price Target:	$25
52-Week Range:	$42-$10

September 19, 2000

Fully Funded but Not Fully Valued

- **Coverage initiated with an Outperform and Tier II rating**
  We believe that Pac-West represents one of the best risk/reward values in the CLEC space and it is our top Tier II play.
- **Unique retail strategy is key to value**
  Retail penetration is outpacing ISP growth, which diversifies revenues and reduces regulatory risk.
- **Company has liquidity and profitability**
  Pac-West is fully funded to free cash flow positive and is now generating 30%+ EBITDA margins.
- **Valuation is compelling**
  Pac-West is trading well below its peers despite its projected growth rate and good near-term visibility.

PACW Price Performance Since IPO (9/4/1998)

Source: FactSet and MSDW Research

Company Description

Pac-West Telecomm is a provider of integrated telecommunications services to ISPs and small- and medium-sized businesses. ISPs collocate either at Pac-West's switching facilities, or subscribe to an integrated managed modem service. For small- and medium- sized business customers, Pac-West bundles telephone equipment, design, installation, and maintenance with local, long distance, and data services.

FY ending Dec 31:	1999A	2000E	2001E	2002E
EPS ($)	-	(0.08)	0.19	0.28
CEPS ($)	-	0.16	0.74	1.20
Revenue ($ m)	-	89.2	138.2	182.9
EBITDA ($ m)	-	24.9	42.2	61.9
P/E	-	NM	101.8	50.9
P/CE	-	92.7	20.1	11.9
EV/EBITDA	-	24.2	14.4	9.0
EV/Rev	-	6.8	4.5	3.1
Market Cap ($m)	552.0			
Enterprise Value ($ m)	602.0			
Shares Outstanding (m)	38.7			

CY01v EPS	1999 actual	2000E curr	2000E prior	2001E curr	2001E prior
Q1	-	-	-	0.08	-
Q2	-	-	-	0.04	-
Q3	-	-	-	0.38E	-
Q4	-	-	-	0.01E	-

E = Morgan Stanley Dean Witter Research Estimate.

Fully Funded but Not Fully Valued

Summary and Investment Conclusion
We are initiating coverage of Pac-West Telecomm with an Outperform rating and a 12-month price target of $25.

We believe that Pac-West is well positioned to be a strong regional communications provider since it has the two components necessary for scalability: strong management and a fully funded business plan. We expect the company to post above-average top-line growth and profitability given its management, unique retail strategy, and its profitable ISP (Internet service provider) product offerings and distribution relationships.

The company's retail offerings include local, long distance, data, and equipment. We expect this revenue stream to grow substantially over the near term, outpacing its ISP channel and thus significantly reducing exposure to any regulatory overhangs. In addition, the company has a strong management team and is one of the few CLECs with a fully funded business plan. Pac-West is currently EBITDA positive (more than 30% margins) and is expected to be free cash flow positive by 2003.

In addition, we believe that the company's valuation is attractive and has been dragged down by recent concerns regarding the ISP distribution channel. We do not believe the stock's current price reflects the company's potential growth opportunities.

Pac-West's strong near-term visibility, high liquidity, and reasonable valuation make it one of the best risk/reward plays in the telecom sector, in our view, and our top Tier II pick.

Investment Positives

Strong management team and good near-term visibility. We believe the company's near-term targets are likely to be attained as Pac-West has a solid track record of meeting or beating Street expectations since it went public in late 1999.

Unique retail strategy. The company targets small- to medium-sized businesses by selling a bundle that includes telephone equipment, design, and maintenance with local, long distance, and data services. The company's retail distribution channel continues to outpace its strong ISP channel, reducing concentration and regulatory risk. This strategy provides a "sticky" customer base, with every customer taking an additional product besides local service. The typical contract length is 3–5 years.

EBITDA positive. The company is currently posting EBITDA margins in excess of 30%. We expect margins to remain high even with significant dilution from geographic and product expansion as the company continues to improve network efficiencies. We expect gross margins to improve as Pac-West enters into fiber IRU (indefeasible right of use) agreements, alleviating much of the third-party backhaul expense.

Minimal financing risk. Pac-West's current business plan is funded until the company becomes cash flow positive, which we estimate to be 2003.

Strong liquidity. Pac-West boasts a low leverage ratio, with its only debt financing being a $150 million senior credit facility. We believe this puts the company in a good fundamental and strategic position. Fundamentally, Pac-West has additional borrowing capacity for further expansion plans or acquisitions. The company is also a more attractive takeover candidate with a reduced debt overhang.

Attractive valuation. Pac-West is trading at 3.1 times 2001 revenue and 9.0 times 2001 EBITDA as compared to 4.2 times 2001 revenues and 40.5 times EBITDA for its peers. On a three-year EBITDA-to-growth basis, the stock is trading at 0.33 times versus 0.36 times for the CLECs as a group.

Exhibit 1
PACW Financing Status

($ mill's - except per share)	Pac-West
Total Cash on Hand	$134.9
Available Line of Credit	40.0
Total	$174.9
2H 2000	
EBITDA	$21.0
Capital Expenditures	(37.4)
Acquisitions	
Cash Interest	(10.1)
Working Capital	(4.0)
Cash Balance at 12/00	$144.4
FY 2001	
EBITDA	$61.9
Capital Expenditures	(106.7)
Cash Interest	(20.7)
Working Capital	(4.7)
Cash Balance at 12/01	$74.1

Source: MSDW Research

Investment Risks

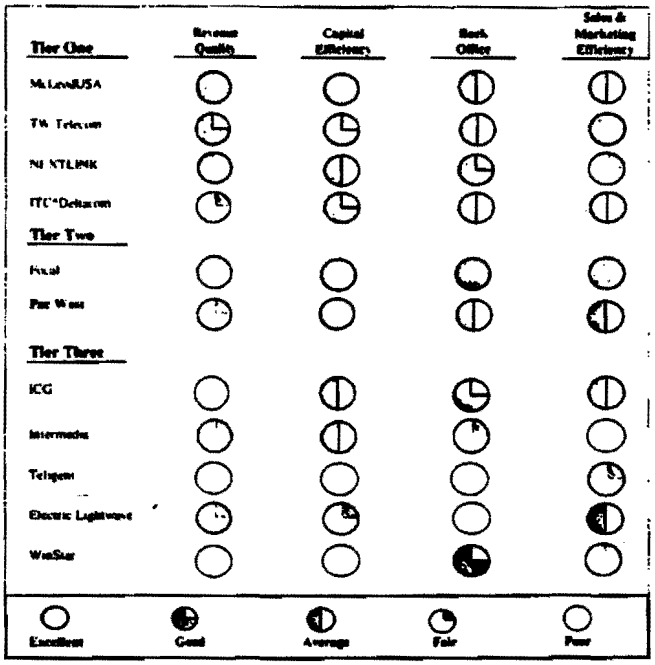
Pricing pressure in the ISP business. Pricing in the ISP distribution channel, for both port prices and usage-based reciprocal compensation, is declining rapidly. We estimate that reciprocal compensation rates have dropped from $0.007–0.008 per minute in late 1998 to $0.002 today. In addition, increased competition caused by low barriers to entry is reducing PRI (primary rate interface) port prices. Some CLECs are offering PRI ports at prices as low as $13–14 a month. We believe that Pac-West's ISP exposure is alleviated by the company's focus on growing its retail business, conservative accounting for reciprocal compensation, and the addition of value-added services, such as managed modems, for their ISP customers.

Provisioning capabilities. While Pac-West continues to provision lines at an increasing pace (the company added over 27,000 lines in 2Q), it is reliant on the ILECs for circuit delivery.

Regional focus. Pac-West primarily focuses on California and is branching into the neighboring states of Washington, Oregon, Colorado, Nevada, New Mexico, Texas, and Arizona. Being a regional CLEC limits the company's addressable market, particularly in relation to ISP customers. Most national ISPs want one telecommunications provider that is capable of delivering service across the country.

No clear data strategy. Pac-West provides Internet access and data switching but has not announced plans to expand its data platform by incorporating other value-added services such as web or applications hosting.

Exhibit 2
MSDW CLEC Tiering



Source: Company data, Morgan Stanley Dean Water Research

Valuation

We have based our valuation of Pac-West on both a ten-year DCF model and a comparison of near-term trading multiples. In the DCF analysis we have conservative assumptions for market penetration, margins, growth rates, and discount rates. On a near-term trading multiple basis, Pac-West is trading at the low end of its peer group. We believe this has been caused by general market concern regarding the long-term viability of the ISP distribution channel and its exposure to regulatory risk. In our opinion, Pac-West's risk is mitigated by its increased retail focus, conservative treatment of usage-based fees, and addition of value-added services.

Exhibit 3
Pac-West DCF Assumptions

DCF Assumptions	
Growth in Perpetuity	7.5%
Cost of Debt	14.5%
Cost of Equity	17.5%
Discount Rate	14.0%
Implied EBITDA / Firm Value 2010	8.1x
Implied Net Income / Firm Value 2010	19.7x
% of Total Value in Terminal	77.5%
Addressable Local Business Lines 2010 (000s)	21,164
Local Business Access Lines 2010 (000s)	1,931
Penetration of Addressable Market 2010	9.1%
ISP Addressable Lines 2010 (000s)	7,556
ISP Lines 2010 (000s)	386
Penetration of ISP Market 2010	5.1%
10 Year Revenue CAGR	20.1%
2010 EBITDA Margin	40.2%

Source: Company data, Morgan Stanley Dean Witter Research

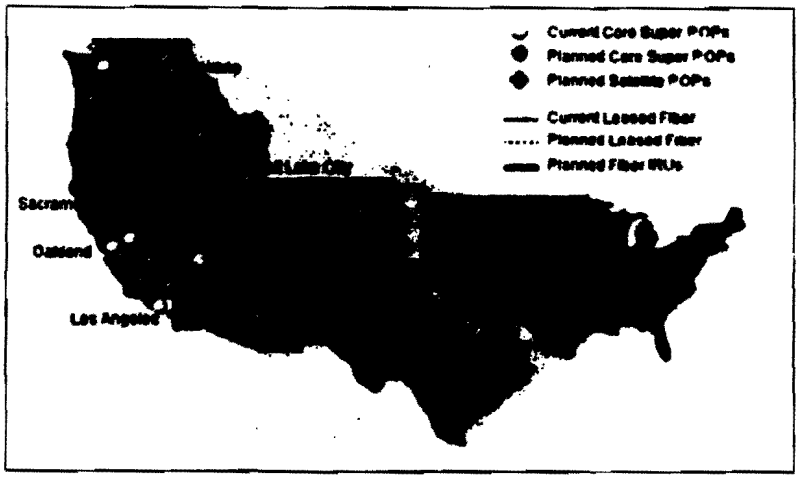
Exhibit 4
CLEC Trading Multiples (as of 9/18/2000)

Near-Term Trading Multiples											
	ELIX	FCOM	ICGX	ICIX	ITCD	MCLD	NSLK	NXLK	TGNT	TWTC	WCII
Firm Value / 01E Revs.	3.0 x	4.4 x	2.7 x	4.5 x	2.4 x	6.8 x	9.6 x	3.3 x	4.4 x	10.8 x	4.3 x
Firm Value / 01E EBITDA	37.4 x	33.6 x	10.5 x	54.9 x	17.0 x	55.7 x	NM	9.8 x	NM	48.6 x	342.1 x
Firm Value / Gross Plant	1.3 x	5.1 x	1.3 x	2.5 x	2.1 x	5.5 x	6.9 x	3.4 x	3.1 x	6.8 x	1.6 x
3 Year Revenue to Growth	0.1 x	0.1 x	0.1 x	0.1 x	0.1 x	0.2 x	0.2 x	0.1 x	0.1 x	0.3 x	0.2 x
3 Year EBITDA to Growth	0.3 x	0.4 x	0.3 x	0.1 x	0.2 x	0.6 x	NM	0.3 x	0.3 x	0.8 x	NM

Source: Company data, Morgan Stanley Dean Witter Research

Network

Exhibit 5
Pac-West Coverage



Source: Company data

Pac-West Telecomm focuses on small- and medium size businesses and provides customized communications services. Pac-West uses a "smart-build" strategy, owning and building intelligent components of the network while leasing unbundled loops and transport lines from other carriers. This strategy allows Pac-West to expand into new markets with lower up-front capital expenditures and faster time-to-market. As traffic on Pac-West's network increases, it intends to purchase rights of use in high-capacity dark fiber transport lines to interconnect certain markets with an owned backbone network.

Pac-West is operational in six markets, including Los Angeles, San Francisco, and Stockton, California; Las Vegas, Nevada; Seattle and Tacoma, Washington; and Denver, Colorado. In addition to these markets, Pac-West has business lines in Phoenix, Arizona; Chico-Oroville and Sacramento, California; Boise-Nampa, Idaho; Albuquerque, New Mexico; Portland, Oregon; Reno, Nevada; Dallas-Ft. Worth, Texas; Salt Lake City-Ogden, Utah; and Spokane, Washington. Pac-West also expects to have statewide local coverage in each of its target markets by the end of 2000.

Pac-West leases most of its transmission facilities from IXCs, ILECs, and other CLECs. The company recently entered into a 20-year fiber IRU with Qwest for an OC-48, SONET ring in California. We expect the company to sign similar agreements for dark fiber in high-traffic regions.

Switch infrastructure. Pac-West's switch infrastructure is structured to minimize capital expense. The company installs Class 5 voice switches at "Super POP" locations and digital nodes at smaller LATA locations. Utilizing a tandem switch approach allows ISP customers to collocate equipment at the Super POP rather than in the smaller LATAs. For its commercial customer, Pac-West is able to provide local voice service using tandem switches by installing PBXs at the customer premise. Since the cost of the PBX is passed through to the customer, Pac-West is able to offer service with significantly lower capital expenditure than other telecom providers.

Products & Services

Pac-West Telecomm's service offerings range from local and long distance to DSL and ISP services:

Local services. Pac-West provides local dial-tone services, including operator services and access to third-party directory assistance.

Long distance services. Pac-West offers domestic and international long distance services. It can combine monthly recurring, local usage, and long distance charges into one invoice.

Specialized application services. Pac-West tailors products and services for small- to medium-sized businesses, for example, raised local calling, expanded local calling area, discounted long distance rates, and tailored trunking configurations.

ISP services. Pac-West provides collocation services at all of their switch locations (Los Angeles, Oakland, and Stockton, California; Las Vegas, Nevada; and Seattle, Washington). They receive monthly revenue from ISPs for the space occupied in the switch facilities. Recently, Pac-West has initiated a managed modem service, which consists of modem pools and dedicated circuits into the world-wide web.

Enhanced services. In addition to providing enhanced services such as conference calling, voicemail, and call transfer, Pac-West offers Internet access, data networking, and DSL services.

DSL (digital subscriber line) service. Pac-West uses Covad Communications to offer high-speed DSL (digital subscriber line) service to its customers. Covad's network supports ADSL, SDSL, and IDSL technologies.

Managed modems. The service provides access lines, modems, Internet access, routers, authentication service, dedicated point-to-point circuits for authentication, and technical support. For customers that choose to maintain their own modems, PACW's SuperPOP configuration allows all the calls from a region to collect in a common modem pool and then roll to an available modem. This process increases modem efficiency, and the number of subscribers that can be maintained by one modem.

Collocation facilities. Pac-West rents space and allows customers to install equipment in any of their SuperPOPs and connect directly to PACW's tandem switches. Allowing customers to collocate their equipment in a specific SuperPOP, rather than each LATA, reduces the customer's capital expenditures and maintenance expense.

Retail Strategy

Pac-West is building its "feet-on-the street" to grow its commercial business. The company currently has 104 salespeople and is targeting 120 people by year-end. Quota is based on the number of lines sold and is approximately 45 lines for the lowest level of account executive.

We forecast commercial revenue to be 19% of total revenue in 2000, growing to 80% by 2010. Pac-West's retail strategy keeps its customer base very "sticky". It provides all of the telecom service, including equipment design and maintenance, local, long distance, data, and Internet access. Pac-West installs a PBX in the customer premise, which is connected to the tandem or Super POP switch by a T-1. The average T-1 customer takes 22 voice lines for both local and long distance, with the remaining capacity dedicated to data and Internet access. For 2000, we modeled the monthly revenue per T-1 at approximately $1,300.

Customers are required to take the full bundle, which keeps them reliant on one telecom provider. The contracts are typically 3–5 years in length.

ISP Channel

Pac-West's ISP Business

Pac-West is shifting its focus toward its commercial customer base, but 70% of the company's revenue is still ISP-related. The ISP distribution channel has been under investor scrutiny recently, primarily due to rapid declines in reciprocal compensation rates and competitive pricing for PRI ports. While we do not believe that the current margins for the ISP business are sustainable, it is a profitable business today. In Pac-West's case, its ISP revenue allows the company to fund its growth initiatives and beef up its salesforce.

Pac-West's ISP revenue consists of monthly port rates, reciprocal compensation, and managed modem services. The company books reciprocal compensation at an industry average of $0.002 per minute. Thirty-percent of the company's ISP lines are taking a managed modem service, and we expect this number to rise in the future.

Overview of the ISP channel

In general, we view the ISP business as a growth opportunity, albeit one that is more price sensitive than commercial voice and data revenues.

- ISPs, particularly in the consumer space, are increasingly moving to full outsourcing, focusing on marketing and content.
- In our view, the primary beneficiaries of the growing wholesale ISP market are emerging carriers that are benefiting from segment growth as well as garnering share from the incumbents.
- Despite the introduction of broadband, as Internet demand surges, we believe the dial-up market will continue to grow —from an estimated $1.7 billion in 2000 to $1.9 billion in 2002.
- Value-added services and, potentially, voice could broaden this market opportunity significantly.
- Technology changes and general capital cost reductions are offsetting reciprocal compensation declines and near-term downward pricing trends. Soft-switch prices can be almost 70% cheaper than circuit-based technology.
- Supply constraints in local capacity have benefited CLECs focused on this segment in the near term. In the long term, market leaders will need to provide broadband and value-added services to maintain a share in the ISP market, in our view.

The ISP market has been critical to the growth of CLECs over the past several years. As those carriers have worked to develop retail sales channels, the ISP market has proven to be a source of growth. More than 40% of total added lines over the last two quarters have been ISP dial ports. Even after accounting for the steep decline in reciprocal compensation rates that has taken place over the past year, we believe this business remains very attractive. New soft-switch technology should help retain those margins over the next several years. Similarly, those CLECs with extensive local fiber networks have also benefited from the rising demand for Internet connectivity

Exhibit 6
Pac-West ISP Revenues

($ Millions)	1999	2000E	2001E	2002E	2003E	2004E	2005E	2006E	2007E	2008E	2009E	2010E
Assumptions												
Penetration												
Residential Lines	9.87%	13.72%	22.29%	33.66%	39.63%	25.51%	26.63%	27.76%	28.61%	29.46%	31.16%	32.86%
Total U.S. Residential Lines	123,911	129,160	132,164	136,436	140,764	145.44	149,xxx	154,xxx	158,799	163,551	168,465	173,519
Penetration Coverage	0.04%	0.07%	0.09%	0.14%	0.19%	0.19%	0.19%	0.19%	0.19%	0.19%	0.19%	0.19%
Total Dial-Up Internet Subscribers	16,400	20,372	29,366	45,902	55,521	58,xxx	59,xxx	60,xxx	64,571	62,320	60,426	58,663
Growth		24.2%	44.1%	56.3%	21.0%	5.1%	2.4%	1.8%	7.5%	-3.4%	-3.0%	-2.9%
Total Dial Ports	1,968	2,446	3,524	4,752	5,551	5,xxx	5,xxx	5,xxx	5,655	5,558	5,396	5,239
Total Target ISP Dial Ports	295	490	977	1,172	1,388	1,xxx	1,xxx	1,xxx	2,623	2,xxx	2,291	2,062
PACW ISP Lines	11,462	16,796	29,499	37,899	39,899	39,899	39,899	39,912	34,929	27,881	20,929	13,956
New Lines		5,334	12,703	8,400	2,000	0	0	13	(4,983)	(7,048)	(6,952)	(6,973)
Growth		46.5%	75.6%	28.5%	5.3%	0.0%	0.0%	0.0%	-12.5%	-20.2%	-25.0%	-33.3%
Average Lines		14,129	23,148	33,699	38,899	39,899	39,899	39,906	37,414	31,405	24,405	17,443
Market Share	0.24%	0.33%	0.49%	0.66%	0.78%	0.78%	0.78%	0.78%	0.73%	0.62%	0.47%	0.34%
Avg. Monthly Minutes per Line (000s)		0.1	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0
Total Minutes of Use (millions)		16,956	54,901	87,976	94,895	94,522	99,561	94,xxx	94,xxx	86,580	81,xxx	76,xxx
Product Selection												
PRI	11,462	16,796	29,499	37,899	39,899	39,899	39,899	39,912	34,929	27,881	20,929	13,956
% of Total ISP lines												
Remote Access (Managed Modems)	0	12,300	100,435	192,851	251,223	292,xxx	295,xxx	307,xxx	310,207	306,262	300,629	293,xxx
% of Total ISP lines	0.0%	39.0%	80.0%	85.0%	86.0%	88.0%	88.0%	89.0%	90.0%	92.0%	94.0%	96.0%
Revenues												
Monthly Fee per PRI Line			$66.15	$63.79	$62.95	$61.xx	$60.xx	$59.xx	$58.31	$57.30	$56.71	$56.17
Decline												
Monthly Fee per RAS Line			$23.00	$20.23	$19.22	$18.xx	$17.xx	$16.xx	$15.65	$14.67	$14.13	$13.62
Decline												
Value-Added Services per Line						$3.00	$5.00	$7.00	$9.00	$12.00	$14.00	$17.00
						100.0%	66.7%	40.0%	28.6%	33.3%	16.7%	21.4%
Total Consumer-Based Revenues	$0.8	$27.8	$49.3	$55.6	$72.5	$64.2	$82.7	$97.3	$108.2	$109.9	$117.6	$123.5
Total Recurring Compensation	$0.8	$47.7	$57.4	$58.5	$69.7	$64.9	$77.3	$79.6	$73.5	$65.8	$54.8	$51.7
Total Recap Comp per Min				$0.0062	$0.0050	$0.0050	$0.0050	$0.0050	$0.0050	$0.0050	$0.0050	$0.0050
Total ISP Revenues	$0.8	$75.5	$106.6	$114.0	$142.2	$129.1	$160.0	$176.9	$181.6	$175.6	$172.4	$175.2
Revenue Per Line/Mth	$61.44	$47.24	$36.50	$31.10	$29.46	$28.95	$34.85	$29.99	$43.65	$31.95	$33.31	

Source: MSDW Research

Macro Trends Appear Positive

ISPs have historically outsourced components of their networks, a trend that has accelerated recently. Increasingly, ISPs are focused on providing content rather than underlying access and are turning to telecom service providers to carry the traffic. The emergence of free ISPs is likely to increase the pressure on consumer and small-business ISPs to cut costs by outsourcing as much of their networks as possible. Even modem banks, which ISPs once considered a core part of their businesses, are now being outsourced to local service providers. We believe that as more value-added products are introduced, there will be growing pressure on ISPs to find outsourcing partners that can provide these services.

Rumors that dial-up Internet access is dead are exaggerated, in our view. The demand for local connectivity is likely to overwhelm the supply of broadband connections over the next two years. We have seen several recent announcements indicating that Internet penetration, particularly at the consumer level, is likely to increase. Large corporations such as Delta Airlines and Ford have announced that they will offer subsidized Internet access to their employees. Free ISPs have announced unprecedented subscriber growth.

We believe that robust growth in dial-up connections will continue for the next two years before slowing and beginning to decline in 2004.

Service providers that can satisfy the need for capacity at key bottlenecks will be in the best position, in our opinion. Today, the local connectivity segment of the supply chain is the weakest link. Local capacity has not kept up with the explosion in backbone capacity. Broadband providers such as the DSL players and the cable companies are well positioned to capture share as broadband becomes more prevalent. However, the dial-up providers control a key bottleneck today.

We expect the ISP wholesale channel to grow with the addition of broadband and value-added services. Many of these services, such as unified messaging and voice, are already here today, although they are not yet a sales focus for most ISPs. We believe these services, combined with other future offerings, could more than double the wholesale ISP market. Service providers with significant market share and a direct relationship with the ISPs would be in the best position to benefit from this market expansion.

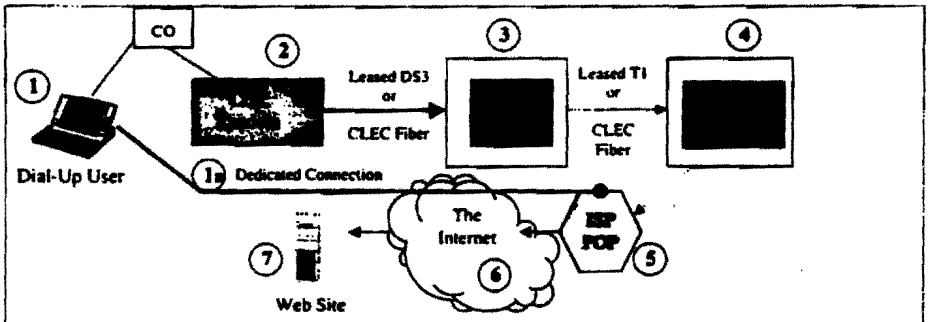
The supply of local capacity has not kept pace with the demand for Internet connectivity, shifting the competitive balance in favor of local providers and away from the backbone players. The increase in demand has created an opportunity for telecom service providers that have local capacity, both broadband and narrowband, to gain share in the wholesale ISP market.

Given this positive environment, we believe CLECs will continue to grow their ISP dial ports for the next two years, gaining share in the ISP wholesale market. Investors who have been reluctant to credit them for their growth in this area should be relieved that the market will likely continue to grow rapidly and that the economics should remain intact.

The ISP Wholesale Market

The ISP wholesale market can be divided into two segments: local connectivity and the backbone. The wholesale value chain can be further subdivided into two markets by the capacity demand of the end user: a consumer and small-business opportunity and a medium- and large-business market.

Exhibit 7
Anatomy of an Internet Subscriber



1. Dial-Up User logs into his 56K modem connection. Connection time includes all minutes spent on line, not just those where one is actively querying the 'Net.

1a. Large Business users generally access the Internet via a dedicated copper T1 or high speed fiber capacity. This connection is direct from the customer premise to the ISP POP.

2. A circuit is then opened between the customer site and the ILEC Tandem switch (via a local ILEC central office). The circuit is transported via a DS-3 circuit from the tandem to a local switch.

3. At the switch, which may be a Class 5 voice switch or a next-gen dedicated switch, the connection is passed to a modem bank. ISP customers are generally concentrated at 10 per dedicated switch port.

4. At the modem bank the call is converted into IP and given the appropriate IP address. The information request is then routed to the ISP POP.

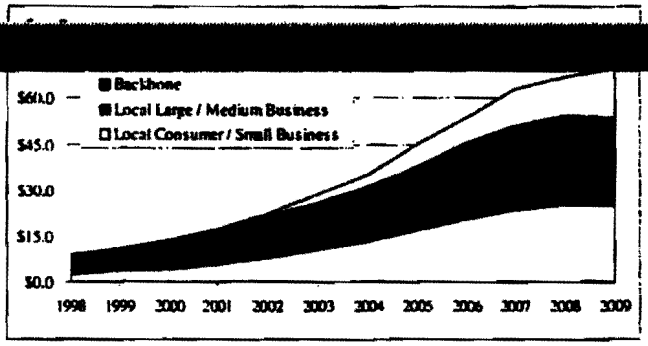
5. The ISP point-of-presence (POP) is the local gateway to the Internet.

6 7. Once on the 'Net, the information request is then routed through various networks to the server hosting the requested web site. This is the backbone segment.

Source: MSDW Research

We estimate the total wholesale market at more than $11 billion in 1999. We believe it will grow at a compound annual growth rate (CAGR) of 26% over the next five years, reaching $36 billion in 2004. By 2009, we estimate the market will almost double again, to $69 billion.

Exhibit 8
Total ISP Wholesale Market, 1998 - 2009



Source: Morgan Stanley Dean Witter Research

Dial-Up Lives!

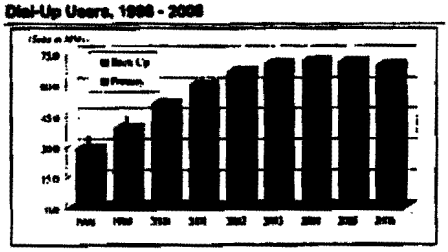
Rumors of the death of dial-up have been exaggerated, in our view. In 1999 the industry witnessed the first serious deployments of digital subscriber line (DSL) connectivity by the regional Bell operating companies (RBOCs) and through the nationwide buildout of NorthPoint and Covad. The cable companies also began to accelerate their rollout of cable modem services. Despite this recent push, these broadband connections have made only a small dent in what is still the primary means of connecting to the Internet — old-fashioned, narrowband, dial-up modems. The number of people connecting to the Internet here in North America continues to outstrip the available broadband access supply.

As indicated in the exhibit above, we believe the overall number of dial-up subscribers will continue to grow through 2004 before beginning to decline. However, we believe 2003 will be the peak year for consumers using dial-up as their primary means of Internet access.

In our view, several recent trends give credibility to our forecast:

- The emergence of free ISPs — NetZero added 1.98 million subscribers in its first year,
- Corporate subsidizing of the Internet,

Exhibit 9
Dial-Up Users, 1998 - 2008



Source: Morgan Stanley Dean Witter Research

- Declining PC prices,
- The proliferation of new applications, and
- Customers' inability to access broadband.

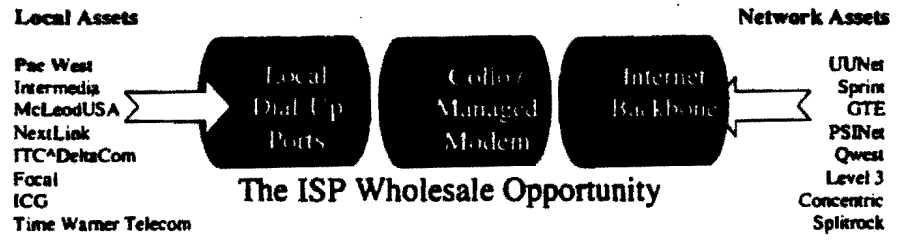
In short, we believe that Internet access will become nearly universal as growth in e-commerce and other web applications makes the Internet a part of everyday life. Furthermore, broadband access is likely to remain constrained by supply. Dial-up will probably remain the primary means of Internet access for the next several years as demand exceeds the supply of broadband alternatives such as DSL and cable modems.

Despite the growth in the number of ISP dial-up ports, we believe the dial-up market will grow at a CAGR of only 5%

346

in the next five years. The main culprit will be rapidly declining fixed monthly charges and a falling reciprocal compensation rate. With the advent of soft-switch technology, service providers can earn attractive returns even at fixed monthly port rates below $10, an analysis that leads us to believe that pricing is likely to rapidly decline to those levels as more providers roll it out. Reciprocal compensation rates fell sharply in 1999 as existing interconnection agreement expired and new agreements were struck. We believe that per-minute charges will continue to fall at greater than 20%, from $0.002 to $0.0015 per minute.

Exhibit 10
Overview of the Consumer and Small-Business ISP Wholesale Market Opportunity



Source: Morgan Stanley Dean Witter Research

The Local Link — CLECs and ILECs

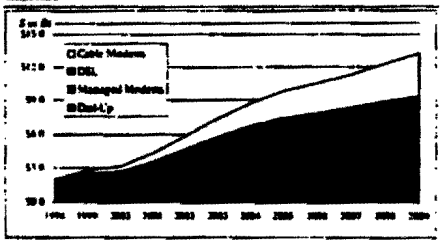
The local service providers have approached the wholesale opportunity from the local portion of the value chain. CLECs, in particular, have been aggressive in selling local dial-up ports to ISPs. CLECs have been particularly well-positioned to take share in this market because they have the port capacity on their local switches, and the reciprocal compensation system has put them in an advantageous cost position vis-a-vis the incumbent local exchange companies (ILECs).

In order to reduce the cost of providing dial-up ports, CLECs have encouraged the ISPs to collocate their modem banks in the CLECs' switch facilities, eliminating the cost of transporting that traffic to another site. Some CLECs have begun to expand this collocation relationship to offer managed modem remote access services (RAS). In this case, the CLECs own and manage the modem bank in addition to providing dial-up port access.

Broadening the Service Offering: Gateways & Backbone

In order to strengthen their relationship with ISPs, service providers are likely to seek to broaden the services they offer. For the local players, offering collocation space and managed modem services helps remove costs from the dial-up port service offering (collocating modems enables a local provider to avoid paying transport costs between its local switch and the ISP modem bank) and frees up the ISP to concentrate on marketing its services and adding content to its site.

Exhibit 11
Consumer and Small-Business Local Access Wholesale Market

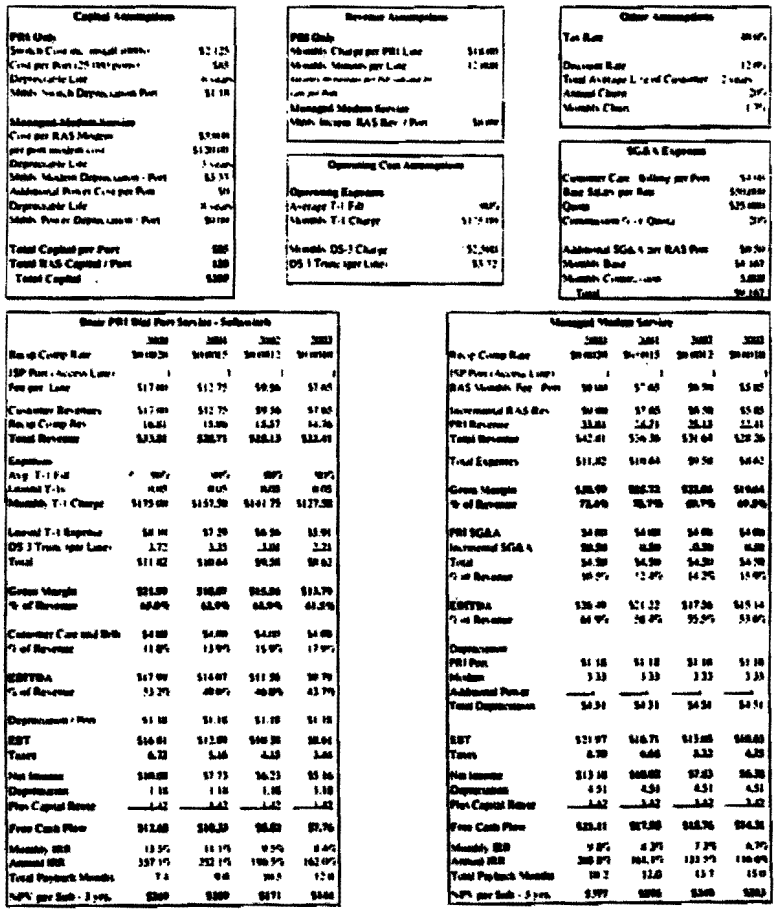


Source: Morgan Stanley Dean Witter Research

Broadening the range of products offered may not be the only reason to offer managed modem services. As the nearest local traffic concentration point for dial-up subscribers, collocation spaces may be an important component of offering value-added services.

Exhibit 10

Analysis of Incremental Managed Modem Services



Capital Assumptions	
PRI Only	
Switch Cost ex. straight switch	$2,125
Cost per Port (25 PRI ports)	$85
Depreciable Life	5 years
Switch Vendor Depreciation - Port	$1.98
Managed Modem Services	
Cost per RAS Margin	$5,000
per port straight cost	$1,250.00
Depreciable Life	5 years
Switch Vendor Depreciation - Port	$5.55
Additional Power Cost per Port	$6
Depreciable Life	5 years
Switch Power Depreciation - Port	$0.00
Total Capital per Port	$85
Total RAS Capital / Port	$50
Total Capital	$200

Revenue Assumptions	
PRI Only	
Monthly Charge per PRI Line	$16.00
Monthly Minutes per Line	12,000
Managed Modem Services	
Switch Vendor RAS Rev / Port	$0.00

Operating Cost Assumptions	
Operating Expenses	
Average T-1 Fill	60%
Monthly T-1 Charge	$175.00
Monthly DS-3 Charge	$2,500
DS-1 Trunk per Line	$5.72

Other Assumptions	
Tax Rate	40.0%
Discount Rate	12.0%
Total Average Life of Customer	2 years
Annual Churn	20%
Monthly Churn	1.7%

SG&A Expenses	
Customer Care - Billing per Port	$4.00
Base Salary per Rep	$50,000
Quota	$25,000
Commission % - Quota	20%
Additional SG&A per RAS Port	$0.50
Monthly Base	$4,167
Monthly Commissions	1,000
Total	$5,167

Basic PRI Dial Port Service - Sellsheet

	2000	2001	2002	2003
Ramp Comp Rate	50.00%	50.00%	50.00%	50.00%
ISP Port / Access Lines	1	1	1	1
Fee per Line	$17.00	$12.75	$9.56	$7.65
Customer Revenues	$17.00	$12.75	$9.56	$7.65
Ramp Comp Rev	16.61	15.00	15.57	14.76
Total Revenue	$33.61	$28.75	$25.13	$22.41
Expenses				
Avg T-1 Fill	60%	60%	60%	60%
Lowest T-1s	0.60	0.60	0.60	0.60
Monthly T-1 Charge	$175.00	$157.50	$141.75	$127.58
Lowest T-1 Expense	$0.10	$7.29	$6.56	$5.91
DS-3 Trunk per Line	3.72	3.35	3.01	2.71
Total	$11.82	$10.64	$9.58	$8.62
Gross Margin	$21.80	$18.09	$15.56	$13.79
% of Revenue	65.0%	63.0%	61.9%	61.5%
Customer Care and Bills	$4.00	$4.00	$4.00	$4.00
% of Revenue	11.9%	13.9%	15.9%	17.9%
EBITDA	$17.80	$14.07	$11.56	$9.79
% of Revenue	53.0%	49.0%	46.0%	43.7%
Depreciation / Port	$1.10	$1.10	$1.10	$1.10
EBT	$16.61	$12.89	$10.38	$8.61
Taxes	6.72	5.16	4.15	3.46
Net Income	$10.00	$7.73	$6.23	$5.16
Depreciation	1.10	1.10	1.10	1.10
Plus Capital Reuse	1.42	1.42	1.42	1.42
Free Cash Flow	$12.60	$10.39	$8.80	$7.76
Monthly IRR	13.9%	11.1%	9.5%	8.4%
Annual IRR	357.9%	252.1%	190.9%	162.0%
Total Payback Months	7.1	9.6	10.5	12.0
NPV per Sub - 3 yrs.	$260	$200	$171	$146

Managed Modem Service

	2000	2001	2002	2003
Ramp Comp Rate	50.00%	50.00%	50.00%	50.00%
ISP Port / Access Lines	1	1	1	1
RAS Monthly Fee - Port	$0.00	$7.65	$6.50	$5.85
Incremental RAS Rev	$0.00	$7.65	$6.50	$5.85
PRI Revenue	33.61	14.21	35.13	22.41
Total Revenue	$42.61	$36.36	$31.64	$28.26
Total Expenses	$11.82	$10.64	$9.58	$8.62
Gross Margin	$30.80	$25.72	$22.06	$19.64
% of Revenue	72.4%	70.7%	69.7%	69.5%
PRI SG&A	$4.00	$4.00	$4.00	$4.00
Incremental SG&A	$0.50	$0.50	$0.50	$0.50
Total	$4.50	$4.50	$4.50	$4.50
% of Revenue	10.6%	12.4%	14.2%	15.9%
EBITDA	$26.30	$21.22	$17.56	$15.14
% of Revenue	61.7%	58.3%	55.5%	53.6%
Depreciation				
PRI Port	$1.10	$1.10	$1.10	$1.10
Modem	3.33	3.33	3.33	3.33
Additional Power				
Total Depreciation	$4.51	$4.51	$4.51	$4.51
EBT	$21.97	$16.71	$13.05	$10.63
Taxes	8.79	6.68	5.22	4.25
Net Income	$13.18	$10.03	$7.83	$6.38
Depreciation	4.51	4.51	4.51	4.51
Plus Capital Reuse	1.42	1.42	1.42	1.42
Free Cash Flow	$23.11	$17.95	$13.76	$12.31
Monthly IRR	9.8%	8.3%	7.3%	6.5%
Annual IRR	200.8%	161.9%	133.9%	110.6%
Total Payback Months	10.2	12.0	13.7	15.0
NPV per Sub - 3 yrs.	$397	$306	$240	$193

Source: Morgan Stanley Dean Witter Research

Management

Wallace W. Griffin. *President and CEO*

Mr. Griffin was appointed president, CEO, and a director of Pac-West when the company was recapitalized in September 1998. Prior to joining Pac-West, Mr. Griffin served as a group president for a number of Jones International companies from 1994 to 1997, including Jones Lightwave, Ltd., a competitive local exchange carrier (CLEC), and Jones Education Company, a leader in using technology to deliver education. Concurrently, he was co-owner of a consulting and business development company, Griffin Enterprises, Inc. From 1987 through 1992, Mr. Griffin served as the president and CEO of U S West Marketing Resources Group, where he managed the $1 billion publishing, media software, and advertising services division. Mr. Griffin has over 35 years experience in telecommunications, cable television, publishing, and advertising.

John K. La Rue. *Founder and Executive Vice President*

Mr. La Rue founded the company's predecessor (also known as Pac-West Telecomm, Inc.) in 1980 and served as its president from 1980 until September 16, 1996. Mr. La Rue is responsible for ensuring the profitable execution of the company's ten-state growth plan, working in close partnership with the company's executive team to develop new business processes, improve organizational efficiency, and ensure asset productivity. In addition, with over 31 years of experience in the telecommunications industry, Mr. La Rue plays a key role in the development of new technologies and service offerings. Mr. La Rue also serves on the company's board of directors.

Richard E. Bryson. *Chief Financial Officer*

Mr. Bryson has served as Pac-West's CFO since November 1998. From 1992 to 1998, Mr. Bryson worked at Bank of America as a managing director in the Telecommunications Group, providing emerging telecommunications companies with corporate finance and capital markets services. From 1989 to 1992, Mr. Bryson was president and founder of MBIC, a fund investing in growth companies. From 1980 to 1989, he worked at Citibank in Mezzanine Investments and Capital Markets.

Brian K. Johnson. *Senior Vice President and General Manager of Business Markets*

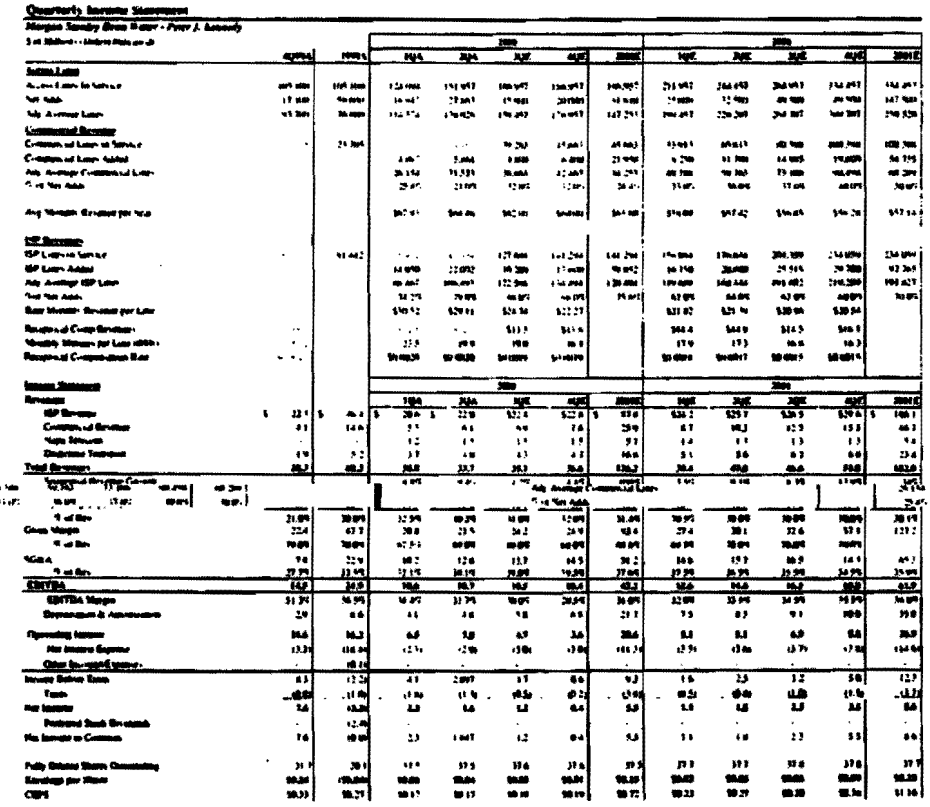
Mr. Johnson was appointed to his current position in June 1999. He joined Pac-West in September 1998 as vice president of sales. Mr. Johnson has over 15 years of experience in the telecommunications industry. Prior to joining Pac-West, he held several executive-level positions, including vice president and general manager of Winstar Telecommunications, overseeing CLEC operations in the San Francisco Bay Area, vice president and general manager for Metrocall Paging for the California and Nevada markets, director of sales for Comverse Technology, and major accounts manager for LA Cellular.

Dennis V. Meyer. *Vice President of Finance and Treasurer*

Mr. Meyer served as the chief financial officer and treasurer of Pac-West and its predecessor company from 1994 until 1998. In November of 1998, after the company's recapitalization, Mr. Meyer was appointed vice president of finance and treasurer. Prior to 1994, Mr. Meyer spent 12 years in public accounting with a national accounting firm. Mr. Meyer is a certified public accountant with over 20 years of experience as a senior financial officer of several manufacturing and regulated transportation companies. Mr. Meyer also served as an officer in the Air Artillery Branch of the U.S. Army.

Exhibit 11

PACW Quarterly Model



Source: Company data, Morgan Stanley Dean Witter Research

Exhibit 12

PACW Annual Income Statement

$ in Millions (except per share data)	1999	2000E	2001E	2002E	2003E	2004E	2005E	2006E	2007E	2008E	2009E	2010E
Revenue												
ISP Revenue	$49.4	$87.8	$108.1	$113.9	$122.2	$129.1	$129.9	$128.9	$127.6	$129.6	$132.4	$135.7
CLEC Revenue	14.6	25.9	46.7	94.3	190.1	288.6	276.6	345.7	413.9	487.5	566.5	650.6
WAPA Telecom	-	4.3	5.6	2.7	-	-	-	-	-	-	-	-
Dedicated Transport	5.2	16.8	23.8	36.2	29.8	31.2	34.9	36.4	42.2	46.4	51.1	56.2
Total Revenue	$68.2	$134.3	$182.8	$237.1	$342.2	$448.8	$441.5	$511.0	$583.8	$663.5	$750.0	$842.9
% Growth		96.9%	36.0%	29.8%	44.3%	31.1%	-1.6%	15.8%	14.2%	13.6%	13.0%	12.4%
Total Operating Expenses	$20.9	$42.8	$54.8	$64.5	$108.9	$131.5	$153.5	$179.9	$200.6	$220.6	$240.0	$260.5
Gross Margin	47.3	91.4	127.1	152.6	192.4	299.9	287.9	331.1	383.2	435.0	491.3	555.5
% Gross Margin	69.4%	68.0%	69.9%	64.4%	63.9%	66.8%	65.2%	64.8%	65.6%	65.6%	65.5%	65.9%
SG&A	$22.9	$51.2	$65.3	$80.8	$93.6	$107.6	$120.6	$130.0	$146.9	$160.3	$181.6	$203.9
% of Revenue	33.6%	38.1%	35.7%	34.1%	27.3%	24.0%	27.3%	25.4%	25.2%	24.2%	24.2%	24.2%
EBITDA	$24.9	$40.2	$61.9	$71.8	$98.9	$192.3	$167.3	$201.2	$236.3	$274.7	$309.6	$351.6
% Margin	36.5%	31.0%	33.9%	30.3%	32.9%	43.0%	37.9%	39.3%	40.5%	41.4%	41.3%	41.7%
Depreciation	8.6	19.1	32.2	56.4	73.5	84.6	87.6	87.8	91.0	95.2	100.6	100.1
Total Amortization		2.6	2.8	2.8	2.8	2.8	2.8	0.2				
Operating Income	$16.3	$18.6	$26.9	$12.6	$22.7	$104.7	$77.7	$113.0	$144.0	$179.5	$209.0	$251.5
Net Interest Expense	$18.4	$11.3	$10.6	$25.0	$32.2	$36.4	$37.3	$34.6	$29.5	$19.2	$0.4	-$4.6
Pre-Tax Income	-2.1	9.3	14.6	-12.4	-9.5	6.3	40.4	89.2	115.3	159.3	208.4	245.4
Income Tax Expense	1.8	3.6	3.7	-	-	-	10.2	30.5	42.8	60.5	79.6	93.2
Other Income Expense												
Net Income	-3.9	5.6	10.9	-12.4	-9.5	6.3	30.2	58.7	72.5	98.7	128.8	152.1
Preferred Dividends	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Net Income to Common	-3.9	5.5	10.9	-12.4	-9.5	6.3	30.2	58.7	72.5	98.7	128.8	152.1
Shares Outstanding	25.4	36.5	38.3	39.8	41.4	43.1	44.8	46.6	48.4	50.4	52.4	54.5
Earnings per Share	($0.09)	$0.15	$0.28	($0.31)	($0.23)	$0.09	$0.67	$1.26	$1.50	$1.96	$2.46	$2.79
CEPS	$0.16	$0.76	$1.20	$1.18	$1.61	$2.23	$2.68	$2.96	$3.35	$3.85	$4.40	$4.85
Annual Capital Expenditures		$92	$107	$91	$99	$109	$100	$102	$108	$117	$126	$141
Gross Plant		$217	$324	$415	$513	$613	$713	$815	$923	$1,040	$1,166	$1,307
Revenue/Gross Plant		$0.63	$0.56	$0.57	$0.59	$0.61	$0.62	$0.62	$0.63	$0.64	$0.64	$0.65
ROI		2.6%	3.4%	2.5%	-2.0%	1.4%	6.2%	8.1%	7.3%	9.5%	11.1%	11.6%

Source: Company data, Morgan Stanley Dean Witter Research

Exhibit 13
PACW Cash Flow Statement

$ in Millions (Calendar Year-end)	2000E	2001E	2002E	2003E	2004E	2005E	2006E	2007E	2008E	2009E	2010E
Net Income	$5.5	$10.9	($12.4)	($9.5)	$0.3	$30.2	$49.7	$71.5	$98.7	$129.8	$152.1
Plus: Depreciation & Amortization	21.7	25.0	29.2	36.2	43.5	49.7	62.2	91.0	95.2	100.6	109.1
Less: Changes in Working Capital	(0.0)	(4.7)	(0.4)	(4.4)	(5.8)	(6.1)	(5.5)	(5.9)	(6.2)	(6.3)	(6.6)
Operating Cash Flow	99.2	31.2	46.4	62.6	90.0	113.8	136.4	156.6	197.8	224.1	254.7
Capital Expenditures	($42.5)	($110.7)	($93.9)	($98.6)	($110.7)	($99.9)	($108.9)	($108.8)	($117.0)	($125.6)	($141.5)
Acquisitions	($10.0)										
Investment Cash Flow	($52.5)	($110.7)	($93.9)	($98.6)	($110.7)	($99.9)	($108.9)	($108.8)	($117.0)	($125.6)	($141.5)
Plus: Non-Cash Comp											
Debt Repayments	-	-	-	-	-	-	-	-	-	($150.0)	-
Debt Drawdowns	-	-	-	-	-	-	-	-	-	-	-
Preferred Equity Retired/Redeemed											
Common Equity Raised	-	-	-	-	-	-	-	-	-	-	-
Financing Cash Flow	-	-	-	-	-	-	-	-	-	($150.0)	-
Net Change in Cash	($53.3)	($79.6)	($47.5)	($36.0)	($20.2)	13.9	29.5	48.5	80.7	($51.4)	113.3
Minimum Cash Balance	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Beginning Cash Balance	$162.9	$79.6	$25.0	$25.0	$25.0	$25.0	$25.0	$25.0	$25.0	$80.9	$54.5
Net Cash Before Revolver	79.6	14.0	(19.5)	(11.0)	14.8	38.9	54.5	73.5	105.7	29.5	167.8
Revolver Drawdowns	-	11.0	44.5	36.0	10.2	-	-	-	-	-	-
Revolver Paybacks	-	-	-	-	-	(13.9)	(29.5)	(48.5)	(80.7)	-	-
Cash Balance After Revolver	79.6	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	29.5	167.8

Source: Company data, Morgan Stanley Dean Witter Research

MORGAN STANLEY DEAN WITTER

1585 Broadway
New York, NY 10036-8293
Tel: (1) 212 761-4000

25 Cabot Square, Canary Wharf
London E14 4QA, England
Tel: 44 20 7513 8000

20-1, Roppongi 4-chome, Minato-ku
Tokyo 106-6018, Japan
Tel: (81) 3 5424 5000

Three Exchange Square
Hong Kong
Tel: (852) 2848 5200

4th Floor, Peninsula Building
Chhatrapati Shivaji Marg, Fort
Mumbai 400 001, India
Tel: +91 22 209 6600

BCE Place, 181 Bay Street,
Suite 3760
Toronto, Ontario M5J 2T3
Canada
Tel: (1) 416 943-6400

AB Asesores
Plaza de la Lealtad, 3
Madrid 28014, Spain
Tel: (34 91) 589 11 00

25 Church Street
#16-01 Capital Square
Singapore 049481
Tel: (65) 834 6888

The Chifley Tower, Level 33
2 Chifley Square
Sydney NSW 2000, Australia
Tel: (61 2) 9770 1111

REQUEST: In the rebuttal testimony of Beth Shiroishi, page 12, beginning at line 22, she discusses the complexities of call set-up and differences in costs between different types of switches. Please provide an example of the different costs that she is referring to.

RESPONSE: Ms Shiroishi's rebuttal testimony, reference page 12 and beginning at line 22, refers to a comparison of the call setup involved at the originating end of a call and the call setup involved at the terminating end of that call.

On the originating end of a call, investment is required for processor time needed to set up the call. Investment is also required to hold the line side path during dialing and also to hold the trunk side path during outpulsing of the dialed digits.

On the terminating end of a call, investment is required for processor time to set up the call. Also, investment is required to hold the line side path but only during the ringing cycle and also to hold the trunk side path during digit reception of the call. This investment is less than that required for the dialing and outpulsing on the originating end.

Overall, the call setup investment required at the terminating end is less that that required for the originating end of the call.

RESPONSE PROVIDED BY: D. Daonne Caldwell
Director
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: In the rebuttal testimony of William Taylor, page 8, beginning at line 9, he discusses the notion that an ISP is an end user's agent in an economic decision.

a) Please define the work "agency" as it applies to his testimony.
b) For comparative purposes, consider a customer who calls a pizza parlor. Is that pizza parlor the customer's agent? If the response if affirmative, please discuss.

RESPONSE:

a) An "agent" in this context is an entity that acts on the customer's behalf to ensure that all the components of a product or service are combined and purchased so that the consumer faces a single price and deals with one supplier for all parts of the product or service.
b) No, the pizza parlor is not the customer's agent for the purchase of a local call. That agent is the LEC that serves the customer, quotes a price (and terms and conditions), and compensates other carriers (generally other LECs) that might be involved in carrying the call. The pizza parlor might be said to be its customer's agent in the supply of pizza—again, quoting a price, assembling the ingredients, delivering the product—but not in the supply of local telephone service.

RESPONSE PROVIDED BY: William Taylor

REQUEST: In the rebuttal testimony of William Taylor, page 12, beginning at line 13, he states that "The cost causation principle implies that , for purposes of an Internet call, the subscriber is properly viewed as customer of the ISP, not of the originating ILEC (or even of the ALEC serving the ISP)." Refer also to the pizza parlor example in interrogatory 20(b).

a) Is the subscriber a customer of the pizza parlor?
b) If the response is affirmative, what impact should that have on what the pizza parlor pays for telephone service?

RESPONSE:

a) Yes, for the purchase of pizzas. The subscriber does not purchase local exchange telecommunications services from the pizza parlor.
b) None. The pizza parlor is also a subscriber to basic exchange service and pays the tariffed rate for such service to business customers. In contrast, the ISP is a carrier (like an IXC) which is permitted to pay local exchange rates for its access service by the FCC's ESP exemption. However, its economic function is that of a carrier, not an end user because it has designed, marketed, billed, collected, etc. for the service that the LEC subscriber (the ISP's customer) has made use of.

RESPONSE PROVIDED BY: William E. Taylor

REQUEST: In the rebuttal testimony of William Taylor, page 34, in the footnote, he describes circumstances where flat-rate pricing of Internet Access is appropriate. Is the provision of Internet Access using xDSL or other special access services a circumstance under which flat-rate pricing is appropriate? Why or why not?

RESPONSE:

Yes. As described in that footnote (page 34), "the advent of direct connections to ISPs through high-speed digital subscriber lines represents a move in that direction," i.e., towards a technology in which the costs of Internet access are truly non-traffic sensitive.

RESPONSE PROVIDED BY: William E. Taylor

REQUEST: In the rebuttal testimony of William Taylor, page 38, beginning at line 16, he states that "the ILEC's incremental cost to terminate a local voice call may differ significantly from (indeed, be significantly higher than) an ALEC's cost to switch or deliver an Internet-bound call to an ISP." What evidence does BellSouth have to show that an ALEC's cost to deliver an Internet-bound call is lower than the cost to an ILEC for the same type of traffic?

RESPONSE: The cited passage refers generally to economies of specialization, in which, all else equal, unit costs for a carrier that specializes in one type of traffic may be smaller than those for carriers that serve a variety of customer types. Reasons why the traffic-sensitive costs of carrying Internet-bound traffic may be less than the costs of voice traffic are explained in Section II(2) of Dr. Taylor's testimony (pp. 18-25).

RESPONSE PROVIDED BY: William E. Taylor

REQUEST: In the rebuttal testimony of William Taylor, page 51, beginning at line 9, he states that ALECs possibly send a share of the reciprocal compensation revenues they receive to the ISPs. What evidence does BellSouth have to support this allegation?

RESPONSE: The fact that the market for serving ISPs is reasonably competitive implies that LECs will not be able to appropriate the entire amount of contribution from reciprocal compensation payments. In theory, the difference between LEC reciprocal compensation receipts and incremental cost represents a contribution flow that ISPs will take into account in selecting their LEC. That contribution flow will find its way to the ISP in the form of explicit payments or a reduction in the market price of ISP access (or an effective reduction in the market price of ISP access through provision of higher quality service, e.g., one-to-one concentration for non-blocking access).

RESPONSE PROVIDED BY: William E. Taylor

REQUEST: BellSouth witness William Taylor discusses arbitrage throughout his testimony. Please discuss whether BellSouth believes a two-part cost-based rate for reciprocal compensation would eliminate or reduce the likelihood of arbitrage.

RESPONSE: A two-part tariff for reciprocal compensation that reflected the difference between call setup and call duration costs would reduce the opportunity for CLECs to arbitrage the tariff. It would not eliminate perverse incentives from reciprocal compensation because it would not address (i) cost-causation issues or (ii) reasons other than duration why the per-minute cost of carrying Internet-bound traffic differ from those of voice traffic, as discussed in Section II(2) of Dr. Taylor's testimony.

RESPONSE PROVIDED BY: William E. Taylor

REQUEST: In the direct testimony of Beth Shiroishi, page 6, beginning at line 5, she cites an FCC order describing xDSL service as exchange access service. In other circumstances, the FCC found that xDSL was special access. (Refer specifically to FCC Order 98-292. CC Docket No. 98-79, released October 30, 1998, ¶2.)

a) Are exchange access service and special access service the same?
b) If the response to a) is negative, why does BellSouth believe that under some circumstances the FCC has found that xDSL is exchange access, and under other circumstances the FCC has found that xDSL is special access?
c) If the FPSC finds in Docket No. 001332-TL that xDSL should be tariffed as an intrastate service, what impact would that decision have on reciprocal compensation for ISP traffic?

RESPONSE: a) No. Exchange access service refers to intraLATA service offerings which allows another carrier to gain access to a Local Exchange Carrier's network in order to offer Interexchange Service to the public. Special access service is an intraLATA service offering that allows another carrier to obtain exchange access service on a dedicated, non-switched basis. Exchange access is therefore made up of switched or special access elements. Components of exchange access are found in both BellSouth's Switched Access Tariff (E6) and Special Access Tariff (E7).

b) xDSL is a hybrid service. The low frequency portion of xDSL service connects to the LEC end office switch for the provision of local exchange dial tone service. The high frequency portion of the DSL service connects on a dedicated, non-switched basis to the ISP.

RESPONSE: (Cont.)

c) None. Again, the high frequency spectrum portion of an xDSL loop would not generate reciprocal compensation.

RESPONSE PROVIDED BY:

Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: Assume for purposes of this interrogatory that BellSouth has ISP customers to whom BellSouth terminates traffic that was also originated by BellSouth customers.

a) Does BellSouth incur a cost to terminate that traffic to the ISP?
b) If the response to a) is affirmative, consider the same traffic that is instead terminated by an ALEC. Does BellSouth avoid the cost that would have been incurred if BellSouth terminated the call to its ISP customer instead?
c) If the cost discussed in b) is not entirely avoided, please explain what portion of the cost is not avoided, and why.

RESPONSE:

a) Yes.
b) Yes, BellSouth avoids the portion of the cost from the ALEC's Interconnection Point to the ISP. However, since local exchange rates do not compensate BellSouth for ISP-bound traffic, BellSouth is compensated for such costs by the services the ISP buys. As such, when the ISP becomes an ALEC customer, BellSouth avoids the cost for a portion of the call, but at the same time BellSouth is not receiving revenue for that portion of the call traversing BellSouth's network.
c) See Answer to (b) above.

RESPONSE PROVIDED BY:

Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

REQUEST: AT&T witness Lee Selwyn states in his direct testimony, page 16, beginning at line 11, that he disagrees that total local usage per residential access line has increased significantly over time because of the growth of ISP-bound calls, So that staff may determine whether usage per access line for not only residential, but also small business, has increased, please provide the average number of minutes of use per access line, for the years 1996 through 1999. Please provide separate responses for the following categories:

a) total access lines (all local services);
b) residential flat rate;
c) residential measured;
d) single-line business flat rate; and
e) single line business measure services.
f) For each of the above categories, include the calculations used to derive the response, i.e, MOUs/access lines or other formulas.
g) If your responses show an increase in MOUs per access line over the requested time period, to what do you attribute the increase?
h) If your responses show a decrease in MOUs per access line over the requested time period, to what do you attribute the decrease?
i) For your responses to g) and h), what evidence do you have to support your conclusion?

RESPONSE: BellSouth does not maintain the information as requested by Staff to determine whether usage per access line for residential and small business has increased. However, BellSouth does have estimates of residential flat rate and total business flat rate usage for 1998, as well as measured residence and business usage, which BellSouth is able to provide if Staff so requests.

RESPONSE PROVIDED BY: Steve Bigelow
Director
3535 Colonnade Pkwy
Birmingham, AL 35243

REQUEST: Please refer to the rebuttal testimony of Beth Shiroishi, page 9, line 23, where she refers to the Code of Federal Register. Should this reference be to the Code of Federal Regulations?

RESPONSE: Yes.

RESPONSE PROVIDED BY:

Beth Shiroishi
Manager
675 West Peachtree Street
Atlanta, GA 30375

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip -3

PARTY: Sprint-Florida Incorporated

DESCRIPTION:

1. Sprint's Responses to Staff's First Set of Interrogatories and First Request for Production of Documents.

PROFFERING PARTY: STAFF

I.D. # Stip-3

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 000075-TP EXHIBIT NO. 3
COMPANY/
WITNESS. FPSC Staff
DATE: 3-19-01

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Interrogatories
January 30, 2001
Item No. 1

REQUEST: In the direct testimony of Michael Hunsucker, page 9, beginning at line 23, he asserts that "efficient entry and rational pricing schemes are most likely to be encouraged if ISP-bound traffic is treated for purposes of inter-carrier compensation the same way it is treated for all other regulatory purposes...". Does Sprint believe that more efficient entry and rational pricing schemes are more likely to occur under the reciprocal compensation regime or under bill-and-keep? Please explain your answer.

RESPONSE: Sprint believes that it is inappropriate to treat compensation for ISP traffic separate from other forms of local traffic. Therefore, unless this Commission takes into account all types of traffic compensated as local, such as local voice, Internet and CMRS, reciprocal compensation remains the most appropriate method for ensuring efficient entry and rational pricing schemes.

INFORMATION PROVIDED BY: Michael Hunsucker
Director – Regulatory Policy

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Interrogatories
January 30, 2001
Item No. 2

REQUEST: In the direct testimony of Michael Hunsucker, page 11, beginning at line 21, he states that Internet calls have much longer holding times than the average call.

a) What is the average holding time for a Sprint residential customer's voice call?
b) What is the average holding time for a Sprint residential customer's Internet call?
c) What holding times do you have knowledge of for other companies?
d) What documentation do you have to support your conclusion that Internet calls have much longer holding times than the average voice call?

RESPONSE: Sprint has not attempted to separately identify and track residential minutes from business minutes. Based on a study of the traffic in central offices where ISPs offer service, the following responses are provided:

a) The average holding time for a Sprint – Florida customer's voice call based on total residential and business minutes is 2.74 minutes.
b) The average holding time for a Sprint – Florida customer's Internet call based on total residential and business minutes is 27.61 minutes.
c) Sprint does not have direct knowledge of holding times for other companies.
d) Sprint conducted a study of Sprint – Florida central offices in which ISPs offered service in 2000. The trunks which served the ISP were studied to identify the originating and terminating minutes of use.

INFORMATION PROVIDED BY: Michael Hunsucker
Director – Regulatory Policy

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Interrogatories
January 30, 2001
Item No. 3

REQUEST: In the direct testimony of Michael Hunsucker, page 14, beginning at line 15, he states that "There is nothing unique about Internet calls that causes the per message and per MOU unit cost components to change." Please describe the per message and per MOU unit cost components that he is referring to.

RESPONSE: As stated in Mr. Hunsucker's testimony, the basic switching components used for voice and Internet-bound traffic are the same. The per message cost, also known as call set-up cost, consists primarily of the amount of time the switch's central processor requires to set-up the call. There are also some SS7 network costs associated with the set-up of the trunk required for the call. The per MOU, or call duration cost component, consists primarily of the line and trunk investment portions of the switch.

INFORMATION PROVIDED BY: Michael Hunsucker
Director – Regulatory Policy

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Interrogatories
January 30, 2001
Item No. 4

REQUEST: In the direct testimony of Michael Hunsucker, page 18, beginning at line 1, he discusses compensation for technologies other than circuit-switched traffic.

a) How does the cost of packet-switching technology differ from circuit-switched?
b) What physical elements of providing service are different?
c) In what manner should cost differences for different technologies be reflected in a reciprocal compensation rate?
d) Would a two-part rate such as that described in witness Hunsucker's testimony be applicable to other technologies, such as packet switching?
e) If the response to d) is affirmative, please describe how such a rate would be formulated for non-circuit-switched technologies.
f) If the response to d) is negative, what rate structure would be appropriate for non-circuit-switched technologies?
g) Do non-circuit-switched technologies have costs analogous to the set-up cost for circuit switched technology?
h) If the response to g) is affirmative, please describe the costs.
i) Are the costs described in g) likely to be higher or lower than comparable set-up costs for circuit switching? Explain.

RESPONSE: In discussing packet-switching technology, it is important to note that packet networks are not standardized like circuit-switched networks. There are many different packet configurations that are used to provision a variety of services, each with their own cost structure. Sprint's local division is in the preliminary stages of evaluating an ATM-based packet network to carry voice traffic in place of digital circuit switches. This packet network for voice traffic is in a total theoretical stage and no hard costs have been developed. For these reasons, Sprint provides general answers to the questions listed.

a) Sprint's experience with the costs of packet technology relative to voice traffic is very limited. With respect to ION, although Sprint is familiar with total costs of deploying ION, Sprint has not dedicated their resources to understanding the costing elements associated with reciprocal compensation and how they differ from circuit-switching.
b) Considering packet networks exist in many different configurations, it is difficult to describe all of the physical element differences that may exist.
c) The current FCC rules require symmetrical compensation arrangements using the ILEC's rates for reciprocal compensation.

New local exchange carriers are not obligated to provide cost studies to implement asymmetrical compensation arrangements, but are given that option. Any cost study supporting a carrier's reciprocal compensation rate should be based on the forward-looking technology.

d) Yes, some packet network configurations can be separated between a call setup and call sustaining function. Specifically, some packet networks employ a feature server that is used mostly during call setup or when a customer would change the state of an existing call (e.g. invoke a custom calling feature). This feature server performs a function similar to the circuit switched call processor.
e) A cost would have to be developed for the feature server portion of a given packet complex. The costs would have to be allocated for call setup functions versus network management and monitoring functions and any other tasks performed by the feature server not related to call setup. The remaining cost would have to be divided by some traffic-sensitive statistic such as busy-hour call attempts or average per hour calls set up by the feature server.
f) N/A
g) While the non-circuit-switched and circuit-switched technologies both employ similar call set-up *functions*, Sprint is not familiar enough with the non-circuit-switched technology, particularly relating to voice traffic, to maintain that both technologies experience analogous costs.
h) & i) See response to g).

INFORMATION PROVIDED BY: Michael Hunsucker
Director – Regulatory Policy

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Interrogatories
January 30, 2001
Item No. 5

REQUEST: In the direct testimony of Michael Hunsucker, page 19, beginning at line 8, he states that "there are other types of traffic, besides Internet traffic, that tend to generate a disproportionately larger amount of terminating traffic than originating." Please list the types of traffic that he is referring to.

RESPONSE: A LEC can have large quantities of terminating traffic for reasons other than terminating traffic to an ISP. There are a number of business and public agencies that receive more in-bound traffic than outbound. For example, if the LEC services a city, county, or state government agency, particularly one that offers call-in help lines, (such as a county extension service) then it will have a larger amount of traffic terminating than originating. A LEC that provides service to an AM talk radio station will have a significantly greater amount of terminating traffic. Similarly, a LEC that provides service to a business office that has a local area network ("LAN") and allows its employees to dial-in to the company's LAN and work from a remote location, such as the employees' home, will have a large amount of terminating traffic. This is particularly true since employees dialing into their LAN will likely log-on and remain on line for the greater part of the day. In fact, if the employee has a second local line at their house solely for the purpose of logging onto the company's LAN, the employee may simply leave their computer logged on to the LAN for 24 hours, 7 days a week. As more companies allow their employees to work at home and log into the company's computers from home, this type of traffic has the potential to generate terminating traffic volumes even greater than that generated by dialing into ISPs.

INFORMATION PROVIDED BY: Michael Hunsucker
Director – Regulatory Policy

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Interrogatories
January 30, 2001
Item No. 6

REQUEST: In the direct testimony of Michael Hunsucker, page 19, beginning at line 20, he describes methods for distinguishing Internet traffic from other traffic.

a) Please describe how the comparison is performed.
b) Is the comparison of traffic flow a manual process or is it automated?

RESPONSE: Mr. Hunsucker described three methods for distinguishing Internet traffic from other traffic as follows:

a) The first method is to compare originating and terminating traffic flows between the ILEC and the CLEC, which would be performed by studying CLEC 2-way trunks and measuring outgoing and incoming traffic.

Another method would be to identify all ISP local numbers and measure terminating traffic. This method would require setting up a study in the billing system to study billing records terminating to specific line numbers. This type of record is not created today. Additionally, the CLEC would have to identify for the ILEC the ISP-specific telephone numbers.

A third method of distinguishing Internet traffic would be to identify CLECs that serve only ISP traffic and then study the traffic flowing over the trunk groups serving that CLEC. Again, the CLEC would have to indicate to the ILEC that they served only ISP traffic. A shortcoming of this method is that only the CLECs who serve nothing but ISP traffic would be measured; CLECs who serve ISP traffic and other local traffic would not be included.

b) The comparison of originating and terminating traffic flows between the ILEC and the CLEC is an automated process, but the actual identification of ISP traffic is manual. Identification of ISP traffic is not 100% accurate, and as answered in Item No. 5, there are other reasons that traffic could be out of balance between originating and terminating minutes.

The method of studying traffic of ISP local numbers would be a manual process. Records would have to be updated on a daily basis for every LEC to ensure accurate tracking.

Distinguishing Internet traffic by identifying CLECs who only serve ISP traffic would be a manual process to make the identification. The traffic study on the trunk groups would be automated.

INFORMATION PROVIDED BY: Michael Hunsucker
Director – Regulatory Policy

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Interrogatories
January 30, 2001
Item No. 7

REQUEST: In the direct testimony of Michael Hunsucker, page 20, beginning at line 12, where he states that "there are CPNI restrictions that could preclude the CLEC from providing customer sensitive information ... to the ILEC." What are the restrictions that he is referring to?

RESPONSE: CPNI restrictions are imposed by Federal Statute, Title 47 U.S.C. Section 222. Section 222 (f)(1)(A) defines customer proprietary network information as "information that relates to the quantity, technical configuration, type, destination, and amount of use of a telecommunications service subscribed to by any customer of a telecommunications carrier, and that is made available to the carrier by the customer solely by virtue of the carrier-customer relationship".

INFORMATION PROVIDED BY: Michael Hunsucker
Director – Regulatory Policy

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Interrogatories
January 30, 2001
Item No. 8

REQUEST: Please refer to Sprint's responses to AT&T's First Set of Interragotories.

a) In Sprint's response to interrogatory 3(a), it is not clear whether the response includes total local minutes for all local service, or whether it is for a specific service, such as business measured rate service. Please clarify.
b) In Sprint's response to interrogatory 3(b), it is not clear whether the response includes total local messages for all local measured service, or whether it is for a specific service, such as business measured rate service. Please clarify.
c) In Sprint's response to interrogatory 4(b), you state that "Sprint's measured rate service is billed based on number of messages, not minutes." Does the data provided in your response to 3(a) include local minutes for measured service.
d) What is the average number of minutes of use per access line, for the years 1996 through 1999? Please provide separate responses for the following categories: 1) total access lines (all local services), 2) residential flat rate, 3) residential measured, 4) single-line business flat rate and 5) single line business measured services, to the extent it is possible to do so.

RESPONSE: Sprint provides the following response:

a) Sprint's response to interrogatory 3(a) includes total local minutes for all services.
b) Sprint's response to interrogatory 3(b) includes total local messages.
c) Sprint's response to interrogatory 3(a) includes local minutes for measured service.
d) Sprint has not attempted to separately identify and track minutes by the categories identified in interrogatory 8(d). The average number of minutes of use per access line for total access lines (all local services) for Sprint – Florida follows:

1996	8,668
1997	10,776
1998	15,976
1999	17,922

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Interrogatories
January 30, 2001
Item No. 9

REQUEST: AT&T witness Lee Selwyn states in his direct testimony, page 16, beginning at line 11, that he disagrees that total local usage per residential access line has increased significantly over time because of the growth of ISP-bound calls. So that staff may determine whether usage per access lines for not only residential, but also small business, has increased, please provide the average number of minutes of use per access line, for the years 1996 through 1999. Please provide separate responses for the following categories:

a) total access lines (all local services);
b) residential flat rate;
c) residential measured;
d) single-line business flat rate; and
e) single-line business measured services.
f) For each of the above categories, show the calculations used to derive the response, such as MOUs/access lines or other formula.
g) If your responses show an increase in MOUs per access line over the requested time period, to what do you attribute the increase?
h) If your responses show a decrease in MOUs per access line over the requested time period, to what do you attribute the decrease?
i) For your responses to g) and h) what evidence do you have to support your conclusion?

RESPONSE: Sprint provides the following response:

a) The average number of minutes of use per access line for total access lines (all local services) for Sprint – Florida follows:

1996	8,668
1997	10,776
1998	15,976
1999	17,922

b) Sprint has not attempted to separately identify and track residential flat rate minutes.
c) Sprint has not attempted to separately identify and track residential measured minutes.
d) Sprint has not attempted to separately identify and track single-line business flat rate minutes.
e) Sprint has not attempted to separately identify and track single-line business measured services minutes.
f) Please refer to the attached schedule for the calculation of minutes of use per total access lines.

Sprint - Florida

	Total Local Minutes	Residential Access Lns	Business Access Lns	Total Res & Bus Access Lns	Avg MOU Per Access Ln
1996	14,426,046,240	1,285,899	378,325	1,664,224	8,668
1997	18,985,320,576	1,355,137	406,606	1,761,743	10,776
1998	29,685,159,154	1,421,147	436,950	1,858,097	15,976
1999	35,131,496,448	1,501,869	458,408	1,960,277	17,922

g) Sprint believes that the increase in minutes of use per total access lines is due to an increase in Internet traffic and to the conversion of toll routes to EAS and ELC routes.

h) N/A

i) Sprint has converted 20 toll routes to EAS and ELC routes in 1997 through 1999. Furthermore, according to a Nielsen Media Research Report on TV Viewing in Internet Households, May 1999, "The Internet has been growing rapidly since 1995 and is currently available in approximately 38% of U.S. households." Per the Nielsen//NetRatings Average Web Usage for the week ending February 4, 2001, which estimates Internet usage based on a sample of households, an average user spends 30 minutes and 39 seconds per session, 5 times a week, for a total of 2 hours and 46 minutes per week. The current universe of Internet users is estimated at 162,994,528 members.

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Interrogatories
January 30, 2001
Item No. 10

REQUEST: If the FCC issues an order that is permissive with regard to any mechanism it prescribes for ISP traffic compensation, that is, an order which allows states to determine how termination of ISP traffic should be compensated, what action do you believe this Commission should take?

RESPONSE: Given that this docket pertains to ISP traffic only, Sprint urges this Commission to treat ISP-bound calls as though they were local calls for purposes of inter-carrier compensation arrangements. Thus, whatever compensation arrangements apply to purely local calls would apply to these calls as well. Furthermore, Sprint recommends that this Commission implement the bifurcated rate structure. Specifically, the switching charge should be bifurcated into a call setup charge and a call duration charge to ensure the charges match the underlying costs and guarantee that the costs are recovered appropriately.

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Requests
For Production of Documents
January 30, 2001
Item No. 1

REQUEST: Please provide any and all documents in your possession or under your control that support your response to staff interrogatory 2.

RESPONSE: Attached are the results of a study Sprint conducted of Sprint – Florida central offices in which an ISP offered service in 2000. The trunks which served the ISP were studied to identify the originating and terminating minutes of use.

INFORMATION PROVIDED BY: Michael Hunsucker
Director – Regulatory Policy

Originate Local To Local Minutes	57,384,612
Originate Local To Local Calls	20,971,810
Originate Local To ISP Minutes	100,526,520
Originate Local To ISP Calls	3,641,416
Originate Local to Local Average Call Duration	2.74
Originate Local To ISP Average Call Duration	27.61

Sprint - Florida
Central Office Study
2000

	ALSPFLXADS0	APPKFLXADS1	CRVWFLXADS0	CYLKFLXADS0	DESTFLXADS0	DFSPFLXADS0	FTMYFLXADS0	FTWBFLXADS0	FTWBFLXADS0	FTWBFLXBDS0
Originate Local To Local Minutes	3,109,816	1,818,719	1,739,057	2,929,470	1,564,406	962,132	3,448,219	2,565,286	2,565,286	805,425
Originate Local To Local Calls	1,201,115	708,721	609,416	1,046,412	523,939	376,000	1,156,874	1,068,392	1,068,392	347,623
Originate Local To ISP Minutes	369,558	380,918	3,805,036	2,178,606	3,130,858	2,022,426	19,702,609	1,809,656	1,809,656	5,396
Originate Local To ISP Calls	15,630	12,485	105,459	73,698	97,360	56,098	720,639	48,473	48,473	207
Originate Local to Local Average Call Duration	2.59	2.57	2.85	2.80	2.99	2.56	2.98	2.40	2.40	2.32
Originate Local To ISP Average Call Duration	23.64	30.51	36.08	29.56	32.16	36.05	27.34	37.33	37.33	26.07

Sprint - Florida
Central Office Study
2000

	GLRDFLXADS0	LBLLFLXADS0	LKBRFLXADS1	LSBGFLXADS1	MRNNFLXADS0	MTLDFLXADS1	NPLSFLXDDS0	OCALFLXBDS0	ORCYFLXADS0	TLHSFLXADS0
Originate Local To Local Minutes	1,141,066	1,528,475	1,744,682	3,760,854	2,060,574	235,381	2,729,690	1,387,720	3,517,705	1,719,426
Originate Local To Local Calls	492,006	540,908	543,312	1,143,172	797,151	90,993	1,213,222	474,240	608,066	879,579
Originate Local To ISP Minutes	34,536	2,020,680	1,752,715	16,339,488	4,815,870	4,410,485	14,698,956	18,091	2,076,430	2,884,067
Originate Local To ISP Calls	322	49,638	69,406	605,117	110,727	213,223	565,307	8,915	58,443	161,872
Originate Local to Local Average Call Duration	2.32	2.83	3.21	3.29	2.58	2.59	2.25	2.93	5.79	1.95
Originate Local To ISP Average Call Duration	107.25	40.71	25.25	27.00	43.49	20.68	26.00	2.03	35.53	17.82

Sprint - Florida
Central Office Study
2000

	TLHSFLXADS1	TLHSFLXBDS0	TLHSFLXCDS0	TLHSFLXEDS0	TLHSFLXFDS0	TVRSFLXADS0	VLPRFLXADS0	WNPKFLXADS1	TOTAL
Originate Local To Local Minutes	5,834,335	1,741,006	1,104,156	992,375	870,076	987,974	1,144,297	3,377,007	57,384,612
Originate Local To Local Calls	2,697,914	544,539	512,023	532,630	300,393	361,517	385,773	747,488	20,971,810
Originate Local To ISP Minutes	432,263	46,747	46,368	68,891	71,284	909,215	11,551,390	3,134,325	100,526,520
Originate Local To ISP Calls	11,542	1,186	711	1,935	1,554	24,228	467,298	111,470	3,641,416
Originate Local to Local Average Call Duration	2.16	3.20	2.16	1.86	2.90	2.73	2.97	4.52	2.74
Originate Local To ISP Average Call Duration	37.45	39.42	65.22	35.60	45.87	37.53	24.72	28.12	27.61

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Requests
For Production of Documents
January 30, 2001
Item No. 2

REQUEST: Please provide any and all documents in your possession or under your control that support your response to staff interrogatory 9(I).

RESPONSE: Attached are the Nielsen Media Research Report on TV Viewing in Internet Households, May 1999, and the Nielsen//NetRatings Average Web Usage for the week ending February 4, 2001.

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

Nielsen//NetRatings

Average Web Usage

Week end of February 04, 2001, U.S.

Home

BACK TO HOT OFF THE NET

Number of Sessions per Week	5
Number of Unique Sites Visited	5
Time Spent per Site	32: 01
Time Spent per Week	2: 46: 24
Time Spent During Surfing Session	30: 39
Duration of a Page viewed	00: 59
Active Internet Universe	63,540,099
Current Internet Universe Estimate	162,994,528

The reported Internet usage estimates are based on a sample of households that have access to the Internet and use the following platforms: Windows 95/98/NT, and MacOS 8 or higher.
The Nielsen//NetRatings Internet universe is defined as all members (2 years of age or older) of U.S. households which currently have access to the Internet.

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TV Viewing in Internet Households

A Report by:

Data Sources:

National People Meter data – May 1999

Nielsen//NetRatings – May 1999

Executive Summary

The rapid growth of home Internet access in the U.S. and the continued capability of television to reach mass audiences is naturally giving rise to efforts by key media players to better understand how these two powerful media affect one another and how they can be used in concert as communications and advertising vehicles. Television is a fixture in U.S. households with virtually all U.S. households having at least one TV set, and three out of every four having multiple sets. Cable/satellite TV is available to 75% of households. In the average household, the TV set is on more than 7 ½ hours a day, every day of the week, every week of the year with individuals viewing anywhere from 3 hours a day (teens 12-17) to almost five hours a day (Women 18+). TV's penetration and high viewing levels has led advertisers to use this media extensively to reach their audiences. Over $45B is spent annually on TV advertising.

The Internet has been growing rapidly since 1995 and is currently available in approximately 38% of U.S. households. These households are a desirable segment for advertisers, as they tend to be more educated and affluent than the average U.S. household. Over 100 Million people have access to the Internet from home. Approx. 60 million of these use the Internet at least once a month (active users). The active users get on the Internet every other day for approximately 30 minutes per session. Average monthly usage for active users is about seven and a half hours. The Internet attracted $2B in advertising in 1998.

As more and more Internet companies start to leverage the reach of television to draw audiences to their web sites, and as the Internet becomes an increasingly important part of TV and cable networks' plans and delivery capabilities, the need to understand the interplay between the two media grows for Internet players and for broadcast and cable entities. With convergence knocking at the door, it may soon be commonplace for people to move seamlessly from one medium to another on the same delivery platform – TVs or PCs. Understanding how people use these two electronic media for information, entertainment, shopping, travel planning and all the things the Internet offers will enable the industry to be better positioned to deliver the types of programming and functionality people want and need.

Research done by Nielsen Media Research suggests that:

- Internet homes are lighter TV viewers but analyses of the same homes before they had Internet access revealed that they were lighter TV viewers to begin with. There is currently almost no indication that Internet access cannibalizes television usage; instead, it offers a targeted vehicle to supplement advertising reach among these lighter television viewers. We are committed to ongoing research to measure and understand the evolving relationship between television and Internet usage.
- While Internet homes are lighter TV viewers, they seem to watch certain types of shows and outlets more than non-Internet homes.

This report provides a look at viewing habits in homes with Internet access and is based on data comparisons from the 5,000 household Nielsen National People Meter Panel. It also draws from other research done by Nielsen Media Research to better understand cross-media consumption and its implications for sellers and buyers of advertising on TV and the Internet.

Manish Bhatia
Vice President - Interactive Services
Nielsen Media Research

The TV Viewing Profile

As of March 1999, there were 99.4 million TV households in the United States. Of those, 74 million had more than one TV set, and 75 million households had access to cable and/or satellite TV.

One of the most basic measures of television viewing is the number of hours per day the television set is in use – Households Using Television – or HUT. Overall TV usage has remained fairly constant over the past five years, averaging about 7 hours of TV usage a day. Seasonal differences are evident with increased viewing in the winter months (7 ½ hours in Feb.) and lower figures during the summer (6 hrs. 50 minutes in July).

Prime time (Mon-Sat 8PM – 11PM and Sunday 7PM – 11PM) continues to attract the most viewing activity. It is the daypart in which all segments of the audience spend the most time viewing. For March 1999, approximately 97 million persons watched TV during prime time per day with Sunday programming being the most watched (106 million people), and Friday and Saturday programming the least watched (90 million people).

Other dayparts reveal some clear differences by age group. For example, women 55+ spend the most time watching daytime television. Children watch more Saturday morning television and account for the fewest hours of prime time viewing. Sunday is the most viewed night of the week but not among all demographic categories. More children watch television on Friday nights than on Sunday night. Conversely, fewer men and women watch television on Friday and Saturday nights. Generally speaking, there are more women in the audience than men.

People who subscribe to premium services (e.g. cable, satellite, etc.) spend more time watching television than any other category of viewers – over 15 hours a week more than homes without premium services. Similarly, large families tend to watch more TV, and persons in higher income homes watch less TV.

The growth of cable and increases in the number of channels continues to increase the viewing options in the average TV household. By 1998, the average TV home was able to receive 57 channels. While the number of channels available in the TV home continues to grow, the number of channels actually viewed has not grown beyond 13. (The term 'viewed' is defined as 10 or more continuous minutes per channel.) Coincidentally, this number is comparable to the number of unique sites Internet surfers tend to visit in a month (12 – described in detail in the following section). It should be noted that this list of 13 channels is not the same for every TV viewer. Each viewer has his or her own preferences that get reflected in what they watch, and each person has his or her own preferences for Web sites they visit

The Internet Surfing Profile

Latest estimates done by the Nielsen//NetRatings Internet measurement service puts the number of Internet homes in the US for May 1999 at approximately 38 million. These Internet households represent approximately 105 million people who have access to the Internet. It has been repeatedly pointed out in various studies that these households are more educated and have higher incomes than non-Internet households do. Of the people who have Internet access at home, 63 million people – about 2/3 of them – are active users, logging on to the Internet from home at least once a month.

On average, these active users tend to log on every other day (16 sessions a month). They tend to visit about 12 unique sites and view over 300 pages of content per month. This 12-site number is very close to the 13 channels viewed in TV households and may suggest that irrespective of how many TV channels or sites there are out there, people tend to find favorites and stick with them. Per session, they tend to view about 20 pages. They spend about 7 ½ hours a month on the Internet from home with each session lasting a bit less than half an hour.

The power of portals is evident from the fact that despite thousands of sites available, 90% of the online audience visits at least one of the top 10 sites in a given month.

Over half the people log on to the Internet during the hours of 5PM and 10PM from home with activity during the 1AM-4AM dropping to less than 10% of users. Teenagers (12-17) are more likely to be on the Internet during the hours of 3PM-5PM. People 55+, incidentally, are also more likely to be surfing the Internet during the same hours. The 25-54 group tends to go online during the 8PM-10PM hours.

Researching cross-media consumption since 1997

Nielsen Media Research first looked at TV viewing trends in Internet homes in the Fall of 1997 when every household in the entire 5,000-household National People Meter Sample was classified as Internet enabled or not. We looked at viewing data in Internet households and compared them to viewing in non-Internet households. The data for the reporting month of Oct. 1997 suggested that Internet homes were lighter TV viewers. This was confirmed in two subsequent updates – one in Apr. 1998 and the other in Oct. 1998.

While research done by Nielsen Media Research confirms that Internet homes watch less TV and that Internet homes were lighter TV viewers even before they got Internet access, based upon current research, there is little evidence that suggests that the Internet is directly impacting television viewing. Homes that got Internet access were lighter viewers even before they got Internet access. We are committed to ongoing research to measure and understand the evolving relationship between television and Internet usage.

What begins to emerge from current research is a media consumption profile for people living in Internet households that is far more revealing than the relatively simple 'light' or 'heavy' viewership classifications. People in Internet households seem to consume media *differently* than persons living in non-Internet households. In some cases, they consumed less of other media; in other cases they consumed more of other media.

Broadcast TV viewing in Internet Households

The following analysis is a snapshot based upon May 1999 TV viewing data from the Nielsen Media Research National TV panel.

- ***Overall, Internet HHs watch less TV than all TV HHs***

On average, 29.7% of all US TV households had the TV set on at any given point in time during the day for May 1999. Only 26.9% of Internet households had the TV set on resulting in a 10% lower TV usage compared to all HHs.

- ***Differences in TV viewing between people living in homes with Internet access and non-Internet homes are greatest during weekday daytime.***
- ***Viewing levels in prime-time were comparable for Internet homes and non-Internet homes.***

Total Day	**All TV HHs**	**Internet HHs**	**Index (Base=100)**
HHs	29.7	26.9	90
Men 18-49	13.7	11.9	87
Women 18-49	16.2	13.9	85
Mon-Fri 9AM-4PM			
HHs	25	20.2	81
Men 18-49	7.6	5.6	74
Women 18-49	13	10.4	80
Prime Time			
HHs	57.8	56.1	97
Men 18-49	32.3	31.5	98
Women 18-49	35.1	33.2	95

As is apparent from the above data, total day viewing in Internet homes is about 10-15% lower than non-Internet homes (a late 97/early 98 study pointed to 16% lower viewing levels in Internet homes). However in prime time, viewing levels are fairly comparable.

Looking at viewing to specific networks, the following trends emerge:

- ***ABC and NBC over deliver in Primetime for male 18-49 and female 18-49 demos in Internet homes***

Broadcast Network Viewing in Internet Households for Prime Time is as follows:

ABC	All TV HHs	Internet HHs	Index (Base = 100)
Men 18-49	3.7	4.0	109
Women 18-49	4.9	5.1	104
CBS			
Men 18-49	2.7	2.5	93
Women 18-49	4.3	4.0	93
FOX			
Men 18-49	4.2	4.4	103
Women 18-49	4.6	4.5	98
NBC			
Men 18-49	4.7	5.3	112
Women 18-49	6.4	7.1	111
PAX TV			
Men 18-49	0.2	0.1	58
Women 18-49	0.3	0.2	73
UPN			
Men 18-49	1.0	1.0	95
Women 18-49	1.1	0.9	81
The WB Network			
Men 18-49	1.1	1.0	91
Women 18-49	2.3	2.1	90

While networks like UPN and The WB Network under deliver in Internet homes, some of their shows do deliver high ratings in Internet homes. ***Felicity*** and ***Dawson's Creek, (The WB Network) StarTrek- Voyager*** and ***Dilbert (UPN), 60 Minutes*** and ***Chicago Hope (CBS)*** are examples of such shows.

While ABC and NBC's prime time schedules over deliver in Internet homes, audiences are selective about what they watch on these networks also. Despite strong prime time delivery, ***Boy Meets World (ABC)*** and ***World's Most Amazing Videos (NBC)*** under deliver in Internet homes.

Cable TV Viewing in Internet Homes

Cable shares some common themes with the Internet. Not too long ago, cable was the 'new media.' It offered viewers niche programming tailored to their individual tastes. The early adapters of cable were affluent households that were more likely to have kids. Cable also promised the advertisers the ability to deliver targeted audiences.

However, just like broadcast viewing, people in Internet homes have a different cable consumption profile than that of people in non-internet homes. Certain cable networks do better in Internet homes compared to non-Internet homes. Here also, we look at prime time viewing as that is when most of the TV viewing occurs. Below are the top 10 cable networks that over indexed for the key demos in Primetime:

Demo/Network	Men 18-49 (Rank)	Women 18-49 (Rank)
CNBC	139 (1)	156 (1)
HGTV	108	123 (8)
History	109	126 (5)
Discovery	115 (8)	122 (9)
E! Entertainment	134 (4)	125 (7)
FX	102	121 (10)
CNN	123 (6)	134 (3)
ESPN	113 (10)	109
Fox News	124 (5)	126 (5)
Headline News	135 (3)	132 (4)
MSNBC	137 (2)	140 (2)
Sci-FI	114 (9)	91
VH1	118 (7)	110

Syndicated TV Viewing in Internet homes

The following syndicated shows over deliver to the Males 18-49 and Female 18-49 demo in Internet homes in May 1999.

Females 18-49

	Index
TV.COM	152
ACCESS HOLLYWOOD (AT)	117
LIVE-REGIS & KATHIE LEE	111
ROSIE O'DONNELL SHOW	111
SAVE OUR STREETS	110
G.MICHAEL SPORTS-MACHINE	106
WHEEL OF FORTUNE-WKND	106
ENTERTAINMENT TONIGHT	105
ROSEANNE SHOW	105
TRIBUNE PRIME NEWS	105
MMN HOME TEAM BASEBALL	104
SISKEL AND EBERT	103
STAR TREK:DEEP SPACE NINE	103
ENTERTAINERS	102
YOUR NEW HOUSE	102
FRIENDS-SYN (AT)	101
LIVING BETTER W C. WIATT	101

Males 18-49

	Index
STAR TREK:DEEP SPACE NINE	137
TV.COM	116
CLICK	114
EARTH: FINAL CONFLICT	111
ACCESS HOLLYWOOD (AT)	109
QUICK WITZ	108
AMERICA OUTDOORS	107
ENTERTAINMENT TONIGHT	106
HOWARD STERN RADIO SHOW	106
S.O.F.:SPCL OPS FORCE	106
HOLLYWOOD SQUARES	105
FRIENDS-SYN (AT)	101
X-FILES-SYN (AT)	101

In Conclusion

The data outlined above are one slice of the research Nielsen Media Research has been doing to help our customers better understand TV viewing patterns in Internet homes. The analysis holds valuable lessons for all players in the TV and Internet arenas in the following ways:

- Internet companies are increasingly relying on TV to pitch their products and services. This information can help them develop more effective media campaigns and deliver their messages on programs and dayparts that deliver the Internet enabled audience.

- Broadcast and Cable Networks are increasingly wearing two hats by producing both TV and Internet content. As such, they can use this information to better 'manage' their audiences in getting them to flow from one medium to the other.

- As sellers of advertising time to Internet companies, broadcasters and cable networks can use this information to offer the Internet companies schedules that better deliver on their target audiences.

Understanding media consumption profiles of people living in Internet households can better position the TV and Internet industry to develop and deliver information, entertaining and advertising content in the post convergence world.

Next Steps

In addition to providing the television and Internet industries with quality research, Nielsen Media Research has been activity participating in various convergence trials around the country. We are committed to contributing to the body of research and helping our clients better understand how people flow from one media to another and back. Additional studies are planned for the second half of 1999 and into 2000.

Stay tuned!

Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Requests
For Production of Documents
January 30, 2001
Item No. 3

REQUEST: Please provide a copy of the orders of Pennsylvania, North Carolina, Nevada, and Texas that are referred to in the direct testimony of Michael Hunsucker.

RESPONSE: Attached are copies of orders from Pennsylvania, North Carolina, Nevada, and Texas that are referred to in the direct testimony of Michael Hunsucker.

INFORMATION PROVIDED BY: Michael Hunsucker
Director – Regulatory Policy

PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17105-3265

Public Meeting held August 26, 1999

Commissioners Present:

John M. Quain, Chairman
Robert K. Bloom, Vice Chairman
David W. Rolka
Nora Mead Brownell
Aaron Wilson, Jr.

	Docket No.
Joint Petition of Nextlink Pennsylvania, Inc.; Senator Vincent J. Fumo; Senator Roger Madigan; Senator Mary Jo White; the city of Philadelphia; The Pennsylvania Cable & Telecommunications Association; RCN Telecommunications Services of Pennsylvania, Inc.; Hyperion telecommunications, Inc.; ATX Telecommunications; CTSI, Inc.; MCI Worldcom; and AT&T Communications of Pennsylvania, Inc. for Adoption of Partial Settlement Resolving Pending Telecommunications Issues	P-00991648
Joint Petition of Bell Atlantic Pennsylvania, Inc., Conectiv Communications, Inc.; Network Access Solutions; and the Rural Telephone Company Coalition for Resolution of Global Telecommunications Proceedings	P-00991649

OPINION AND ORDER

TABLE OF CONTENTS

23. That the record in these proceedings shall be marked closed.

BY THE COMMISSION,

James J. McNulty
Secretary

(SEAL)

ORDER ADOPTED: August 26, 1999

ORDER ENTERED: September 30, 1999

XIV. INTERNET/RECIPROCAL COMPENSATION

A. Introduction

The payment of reciprocal compensation[192] for the termination of traffic to Internet Service Providers (hereinafter sometimes referred to as ISPs) has been a particularly contentious issue between ILECs and CLECs. Generally, CLECs assert that traffic to ISPs should considered local traffic subject to the reciprocal compensation provisions of Section 251(b)(5) of the Communications Act of 1934, *as amended by* TA-96. Conversely, ILECs contend that traffic to ISPs should be considered interstate traffic and thus not subject to reciprocal compensation.

The FCC recently determined that internet calls are interstate for jurisdictional purposes although the states are free to determine the compensation treatment of these interstate calls.[193] However, notwithstanding the jurisdictional nature of this traffic, at present the FCC has left it to the states, to determine the proper treatment of this traffic for the purpose of the payment of reciprocal compensation for the termination of ISP calls among carriers.[194] On this issue, the ILECs generally take the position that the Commission's *TCG Order* is no longer controlling in light of the FCC's conclusion that calls to ISPs are interstate for jurisdictional purposes. CLECs generally disagree with this position.

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[192] Reciprocal Compensation is a settlement process involving the payment between ILECs and CLECs (inter-carrier compensation) to each other to terminate local calls on each other's local exchange network. Section 251(b)(5) of TA-96 requires all LECs to "establish reciprocal compensation arrangements for the transport and termination of telecommunications." The FCC's Local Competition Order, 11 FCC Rcd 15499, 16013 (1996)) construed this provision to apply only to the transport and termination of "local telecommunications traffic."

[193] *See,* In the Matter of . . . Inter-Carrier Compensation for ISP-Bound Traffic, CC Docket No. 99-68 (released February 26, 1999) (FCC Inter-Carrier Compensation Order).

[194] *See,* Petition For Declaratory Order of TCG Delaware Valley, Inc. for Clarification of Section 5.7.2 of its Interconnection Agreement with Bell Atlantic-Pennsylvania, Inc.; Docket

Before discussing our resolution of the Internet/Reciprocal Compensation issue, we provide the following background for the specific developments that have taken place in Pennsylvania with regard to these issues.

B. Background

On September 19, 1997, TCG Delaware Valley, Inc. (TCG) filed a Petition for Declaratory Order seeking clarification of its Interconnection Agreement with Bell-Atlantic-Pa., Inc. (BA-PA).[195] The main issue in this proceeding centered on whether calls to connect to Internet Service Providers (ISPs) should be classified as local traffic, subject to reciprocal compensation. TCG filed an Amended Petition on October 1, 1997 requesting the Commission to clarify, interpret, and enforce Section 5.7.2 of the BA-PA/TCG Interconnection Agreement. Specifically TCG requested that the Commission declare that traffic from a BA-PA end-user to an ISP is local traffic and that BA-PA should pay reciprocal compensation for termination of its traffic.

On December 11, 1997, we ordered that the TCG Petition be held in abeyance pending review and consideration of further comments on this matter. That Order was published in the *Pennsylvania Bulletin* for the purpose of soliciting comments on (1) whether and why calls placed to a local number of an ISP should be treated differently from local, voice-grade service to other numbers generally, and (2) what the specific characteristics of Internet calling and the unique costs associated with originating and terminating such traffic are.

No. P-00971256, (Order entered June 16, 1998) (TCG Order) for more details concerning ISP traffic at the state level in Pennsylvania.

[195] *See,* Petition For Declaratory of TCG Delaware Valley, Inc. for Clarification of Section 5.7.2 of its Interconnection Agreement with Bell Atlantic-Pennsylvania, Inc.; Filed September 19, 1997; Amended October 22, 1997; Docket No. P-00971256.

On June 16, 1998, we determined that the term "Local Traffic"[196] as used in that Interconnection Agreement, includes local traffic from BA-PA's end-user customers to ISPs, who are TCG's end-user local customers, and we ordered BA-PA to "pay TCG the applicable termination rate for such local calls under the reciprocal compensation provisions of the Interconnection Agreement." (Ordering Paragraph 2). We also concluded that "the issue of whether end-user traffic to an ISP is jurisdictionally interstate or intrastate is not material to our authority over interconnection agreements.[197] At the same time we directed BA-PA to advise us within ten (10) days of whether it wished to initiate a generic proceeding.

In response, BA-PA filed, at Docket No. P-00981404, a Petition of Bell Atlantic-PA, Inc. for Generic Proceeding to Investigate Issuance of "Local" Telephone Numbers to Internet Service Providers by Competitive Local Exchange Carriers on June 26, 1998.[198]

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[196] Section 1.44 of the Agreement defines "Local Traffic" as: traffic that is originated by a Customer of one Party on that Party's network and terminates to a Customer of the other Party on that Party's network, within a given calling area, or expanded area service (EAS) area, as defined by BA's effective Customer tariffs, or, if the Commission has defined local calling areas applicable to all LECs, then as so defined by the Commission.

[197] In support of this conclusion, we expressed our agreement with TCG that the Eighth Circuit Court found that state commissions retain the primary authority to enforce the substantive terms of the agreements made pursuant to Sections 251 and 252, and that this Commission's authority under the federal Act is applicable even where the underlying jurisdiction of the call is interstate because the Act gives state commissions authority to review and arbitrate interconnection agreements governing intrastate, interstate and international traffic. (Order, p.20).

[198] *See,* Petition of Bell Atlantic-PA, Inc. for Generic Proceeding to Investigate Issuance of "Local" Telephone Numbers to Internet Service Providers by Competitive Local Exchange Carriers, filed June 26, 1998, Docket No. P-00981404.

By our Opinion and Order entered September 2, 1998, at Docket Nos. P-00981404 and P-00971256,[199] we granted BA-PA's Petition, opened an investigation, and directed that it include the fundamental question of whether Internet traffic and Internet calls are local as a matter of policy in Pennsylvania. (Order, pp. 3 and 5). That proceeding has been stayed during consideration of this matter. BA-PA subsequently sought to withdraw their request for an investigation into industry practices regarding the assignment of local numbers to CLECs in conjunction with the delivery of ISP arrangements. Consequently, the only remaining issue is the state's treatment of internet calls.

C. Disposition

As we previously noted, on February 26, 1999 the FCC released its Inter-Carrier Compensation Order, ruling that ISP traffic is predominantly interstate and thus within the FCC's jurisdictional authority. The FCC reached that determination by, *inter alia*, adopting a "one-call" approach to internet traffic, which treats a call from a user's premises to an ISP's server and from the ISP's server onto the internet as one seamless call, and rejected the "two-call" approach, which considers a call from a user's premises to an ISP's server and then from the ISP's server onto the internet as two separate calls. The FCC rejected the "two call" approach advocated by states and competitive service providers by reasoning that complete end-to-end calls to an ISP do not terminate at the ISP's local server, but continue to the ultimate destination or destinations, specifically at an Internet website that is often located in another state. The FCC also indicated that "while to date, the Commission [FCC] has not adopted a specific rule governing the matter, we note that our policy of treating ISP-bound traffic as local for purposes of interstate access charges would, if applied in the separate context of reciprocal

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[199] See, Investigation of Issuance of Local Telephone Numbers to Internet Service Providers by Competitive Local Exchange Carriers, Docket Nos. P-00981404 and P-00971256 (Order entered

compensation, suggest that such compensation is due for that traffic." (FCC Inter-Carrier Compensation Order, ¶26). Therefore, even though the FCC considers traffic to ISPs as predominantly interstate in nature and thus jurisdictionally interstate, it appears that from a regulatory standpoint, the states may treat ISP-bound traffic as local traffic so long as there is no conflict with governing federal law.

The 1648 Petitioners rely on the FCC's opinion for the proposition that states can determine whether calls to ISPs are local or interstate in nature. They argue that the Commission is allowed to and should continue to treat Internet traffic as local traffic consistent with the precedent established by our TCG Order.

The 1649 Petitioners rely on the same FCC opinion for the proposition that all parties should have the ongoing right to argue prospectively the issue of reciprocal compensation under then-applicable law. In addition, they believe that calls to ISPs are interstate and thus not subject to the reciprocal compensation settlement arrangement.

The opposing views by the parties in the 1648 and 1649 Petitions have not changed in this proceeding. Proponents for the local treatment of internet calls marshall the following points in support of their view:

- To date over thirty states have concluded that reciprocal compensation should be paid for ISP traffic. (Intermedia St. No. 1, p. 41).
- The FCC Inter-Carrier Compensation Order declared that the states retain the jurisdiction to decide whether reciprocal compensation applies, even though the calls are jurisdictionally interstate, because the decisions will not conflict with any FCC rule. (ALTS, M. B., p. 48).

September 2, 1998).

- Both Florida and Alabama issued decisions that applied reciprocal compensation to ISP traffic after the FCC Order. (Intermedia St. No. 1, pp. 44-45)

- Our *TCG Order* remains sound precedent after the ruling of the FCC because: (a) the Commission expressly considered, and rejected, BA-PA's argument that the "end-to-end" nature of the call precluded reciprocal compensation; (b) the TCG decision correctly concluded that the jurisdictional question of whether the call was interstate or intrastate was "not material to our authority over interconnection agreements," (c) the Commission's interpretation of the interconnection agreement was based on "extrinsic evidence" that technology had only recently been developed to distinguish between ISP-bound and other calls, and (d) the Commission relied on TCG's ". . . citation to the industry understanding and practice involving reciprocal compensation for ISP calls as compelling." (Main Brief of ALTs, et al., p. 50).

- Treating ISP-traffic as "local" for purposes of intercarrier compensation is decidedly in the public interest in promoting local exchange competition and access to the Internet. (AT&T Main Brief, p. 83).

- The FCC has no rule governing intercarrier compensation for ISP-bound traffic; thus in order fulfill their statutory obligation under Section 252 of the federal Telecommunications Act, state commissions have had no choice to establish an inter-carrier compensation mechanism and to decide whether and under what circumstances to require the payment of reciprocal compensation. (FCC Intercarrier Compensation Order, ¶26).

- The Massachusetts Order ruled only that the "sole and exclusive" basis for its earlier decision that reciprocal compensation is owed for ISP traffic, the so-called "two call theory," had been invalidated by the Inter-Carrier Compensation Order. The Massachusetts Order did not however state that reciprocal compensation was not owed for ISP-bound traffic. (CTSI M.B. p.24).

- Both BA-PA and GTE treat ISP traffic as local for separations purposes. Tr. 561; Tr. 1333.

Opponents of the position that ISP traffic should be treated as local for reciprocal compensation purposes argue the following:

- The determination of whether an Internet-bound call is "local" depends on the terminating point of the complete end-to-end call and Internet-bound calls do not terminate at the ISP's local server, but continue to the ultimate destinations, specifically at an Internet website that is often located in another state. (BA-PA Main Brief, p. 55).

- The FCC Inter-Carrier Compensation Order confirmed that "reciprocal compensation is mandated under § 251(b)(5) only for the transport and termination of local traffic," and that "ISP-bound traffic is non-local interstate traffic." As a result, the FCC ruled, "the reciprocal compensation requirements of section 251(b)(5) of the Act and [the FCC's implementing] rules do not govern inter-carrier compensation for this traffic." (Footnotes omitted) (BA-PA Main Brief, p. 54).

- Two states, Massachusetts and New Jersey, recently reversed their prior decisions and concluded that Internet traffic is not subject to reciprocal compensation based on the FCC Inter-Carrier Compensation Order.

- The relief demanded in the 1648 Petition is not in the public interest because the unqualified payment of reciprocal compensation for ISP traffic does not promote real competition in telecommunications; rather, it enriches competitive local exchange carriers, Internet service providers, and Internet users at the expense of telephone customers or shareholders.

- If small ILECs are required to remit reciprocal compensation to CLECs for ISP traffic, a potentially significant incremental cost could be created which could translate into extremely high local service rates to end users. (RTCC Main Brief, p. 43).

The specific issues we must address are whether the FCC Inter-Carrier Compensation Order requires us to reverse our TCG Order and discontinue the application of reciprocal compensation for ISP calls in light of the fact that the FCC deemed those calls predominantly interstate in nature and whether, as a matter of policy, Pennsylvania will treat internet calls as local calls for purposes of compensation to the extent permitted by Federal law. These are questions of law and policy.

Based on our review of the record, we find more compelling the arguments set forth by the proponents of the position that ISP calls should be treated as local calls for reciprocal compensation purposes. Moreover, we decline to reverse our prior *TCG* decision consistent with this determination.

Consequently, we direct that ISP calls shall continue to be treated as local calls as a matter of public policy in Pennsylvania, for the purpose of intercarrier compensation consistent with federal law and policy

Carriers must continue to abide by the current interconnection agreements regarding reciprocal compensation for the local treatment of ISP calls, consistent with the FCC Order and this determination. In addition, we direct that calls to local ISPs shall be considered local and that reciprocal compensation shall be applied on all ISP traffic for all future interconnection agreements filed with this Commission.

The FCC Inter-Carrier Compensation Order which provides broad authority to state commissions in the application of reciprocal compensation as stated below:

> Although reciprocal compensation is mandated under §251(b)(5) [of TA-96] only for the transport and termination of local traffic, neither the statute nor our rules prohibit a state commission from concluding in an arbitration that reciprocal compensation is appropriate in certain instances not addressed

> by section 251(b)(5), so long as there is no conflict with governing federal law. A state commission's decision to impose reciprocal compensation obligations in an arbitration proceeding -- or a subsequent state commission decision that those obligations encompass ISP-bound traffic -- does not conflict with any commission rule regarding ISP-bound traffic.[88] By the same token, in the absence of governing federal law, state commissions also are free not to require the payment of reciprocal compensation for this traffic and to adopt another compensation mechanism.
>
> [88] As noted, in other contexts we have directed the states to treat such traffic as local. *See* ESP Exemption Order, 3 FCC Rcd 2631, 2635 n.8, 2637 n.53.

This language, referenced in the comments of numerous proponents of the 1648 Petition, belies BA-PA's position that we lack authority to require reciprocal compensation for ISP calls on the sole basis that Internet calls are jurisdictionally considered interstate.

We are mindful of RTCC's concern that if small ILECs are required to remit reciprocal compensation to CLECs for ISP traffic, a potentially significant incremental cost could be created which could translate into extremely high local service rates to end users. (RTCC Main Brief, p. 43). However, as the CTSI points out, the record shows that currently no member of the RTCC has a CLEC operating within its territory to which it makes or receives reciprocal compensation payments. (CTSI Joint Brief, p. 21, referring to Tr. at 559 (Laffey cross). Moreover, this is an issue the small ILECs may address during the suspension period provided to them under Section 271(f)(2) of the TA-96.

Finally, we note that the Joint Brief of CTSI, *et al.*, accurately describes our logic in examining the extrinsic factors before reaching a decision of whether local calls to ISPs are eligible for reciprocal compensation. (CTSI Joint Brief, pp. 20 - 22). In this

regard, we note that we have previously examined, in the context of the *TCG Order*,[200] the following extrinsic factors dictated by the FCC[201] in reaching our decision that local calls to ISPs are eligible for reciprocal compensation:

- the negotiation of the agreement in the context of the FCC's longstanding policy of treating the traffic as local;
- the conduct of the parties pursuant to those agreements;
- whether LECs serving ISPs have done so out of intrastate tariffs;
- whether revenues associated with those services were counted as intrastate revenues;
- whether there is evidence that ILECs or CLECs made any effort to meter this traffic or otherwise segregate it from local traffic; and
- whether, if ISP traffic is not treated as local and subject to reciprocal compensation, ILECs and CLECs would be compensated for this traffic.

Moreover, we underscore here our expectation that all parties to existing interconnection arrangements will continue to abide by those arrangements to prevent unnecessary litigation of the issues underlying this determination.

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200 *See* TCG Decision at 22-23.

201 Inter-Carrier Compensation Order, at ¶24.

3-1-00

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. P-582, SUB 6

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Petition by ICG Telecom Group, Inc. For Arbitration of Interconnection Agreement with BellSouth Telecommunications, Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996	ORDER RULING ON OBJECTIONS, REQUEST FOR CLARIFICATION, RECONSIDERATION, AND COMPOSITE AGREEMENT

BEFORE: Jo Anne Sanford, Chair; and Commissioners Robert V. Owens, Jr. and Sam J. Ervin, IV

BY THE COMMISSION: On November 4, 1999, the Commission entered its Recommended Arbitration Order (RAO) in this docket. As part of that Order, the Commission made the following

FINDINGS OF FACT

1. The parties should, as an interim inter-carrier compensation mechanism, pay reciprocal compensation for dial-up calls to Internet Service Providers (ISPs) at the rate the parties have agreed upon for reciprocal compensation for local traffic and as finally determined by this Order, subject to true-up at such time as the Commission has ruled pursuant to future Federal Communications Commission (FCC) consideration of this matter.

2. ICG Telecom Group, Inc.'s (ICG's) Charlotte switch serves an area comparable to that served by BellSouth Telecommunications, Inc.'s (BellSouth's) Charlotte tandem switch and ICG's switch also provides the same functionality as that provided by BellSouth's tandem switch. For reciprocal compensation purposes, ICG is entitled to compensation at the tandem interconnection rate (in addition to the other appropriate rates) where its switch serves a geographic area comparable to that served by BellSouth's tandem switch.

3. The Commission declines to decide at this time whether BellSouth should be required to commit to provisioning the requisite network buildout and necessary support. The Commission encourages BellSouth and ICG to continue to negotiate on this issue. Further, the Commission notes that since a similar provision is found in BellSouth's Revised Statement of Generally Available Terms (SGAT) and at least one interconnection agreement, it would appear reasonable for a similar provision to be voluntarily included in the BellSouth/ICG interconnection agreement.

4. The issue of performance measurements and liquidated damages has been, in essence, withdrawn from the arbitration and accordingly is not in need of resolution in this docket. Further, the Commission will create a new docket, Docket No. P-100, Sub 133k, and issue an Order in that docket establishing the generic docket and requesting that the industry, the Public Staff, the Attorney General, and any other interested parties form a Task Force to attempt to agree on all potential issues concerning performance measurements and enforcement mechanisms. Further, the Commission will issue an Order in Docket No. P-100, Sub 133i (AT&T's Petition for Third-Party Testing) stating that the Commission is investigating performance measurements in a generic docket as a first step, but will keep the third-party testing docket open for future consideration.

On December 6, 1999, BellSouth filed its Objections and Request for Clarification and Reconsideration with an additional letter filed on December 14, 1999, correcting the citations referenced in its Objections and Request for Clarification and Reconsideration. BellSouth stated in its Objections and Request for Clarification and Reconsideration that it seeks clarification and reconsideration concerning: (1) the interim inter-carrier compensation plan adopted by the Commission for ISP traffic; and (2) the Commission's determination that ICG is entitled to reciprocal compensation at BellSouth's tandem interconnection rate. BellSouth stated that it seeks clarification of the RAO on two points. First, BellSouth stated that it desires confirmation that any compensation paid pursuant to the interim inter-carrier compensation plan will be trued-up retroactively to the effective date of the Interconnection Agreement resulting from this Arbitration in accordance with the mechanism established by the FCC and the Notice of Proposed Rulemaking (CC Docket 99-68). Second, BellSouth stated that it seeks clarification that the true-up will be triggered, and based on, an effective order by the FCC in CC Docket 99-68 which ensures the most expeditious resolution of this issue for all competing local providers (CLPs) and incumbent local exchange companies (ILECs) operating under the Commission's interim inter-carrier compensation plan. Finally, BellSouth requested the Commission to reconsider its position on the interim inter-carrier compensation rates for ISP-bound traffic and consider an alternative for the payment of those rates and to reconsider its conclusion that ICG is entitled to reciprocal compensation at the tandem interconnection rate.

On December 14, 1999, ICG filed a letter confirming its intentions to file on or before December 21, 1999, a response to BellSouth's Objections and Request for Clarification and Reconsideration.

On December 22, 1999, ICG filed its Opposition to BellSouth's Objections and Request for Clarification and Reconsideration. ICG maintained that BellSouth's filing is nothing more than a rehash of arguments already considered and rejected by the Commission. ICG further maintained that BellSouth's request for clarification is unclear. ICG concluded that neither of the requested clarifications is in any way necessary.

On January 3, 2000, the Public Staff filed its Response to Request for Reconsideration. The Public Staff stated that the single issue it wished to address concerned whether ICG should be compensated for tandem switching. The Public Staff stated that it did not address this issue in its Proposed Order in this docket, however, it now believes that the Commission should reconsider and reverse its finding on this issue on the grounds that ICG failed to demonstrate that its switch provides the tandem function in terminating a call delivered to it by the LEC.

On January 10, 2000, ICG filed its Reply to the Public Staff's Response. ICG maintained that the Commission correctly concluded that FCC Rule 51.117 provides a single criterion for tandem rate eligibility and that though not required, the record demonstrates that ICG's switch functions as a tandem. ICG recommended that the Commission deny BellSouth's Request for Reconsideration.

On January 20, 2000, the Commission issued an Order Regarding Maps. The Commission required ICG and BellSouth to submit as late-filed exhibits a map showing ICG's network with relevant switches in North Carolina overlaid against the geographic area which BellSouth's tandem switch serves and the number of BellSouth central offices ICG is presently collocated in within North Carolina by no later than January 23, 2000.

On January 20, 2000, BellSouth filed the Final Order of the Florida Public Service Commission in its ICG/BellSouth arbitration docket.

On February 7, 2000, BellSouth filed its maps in response to the Commission's January 10, 2000

Order. ICG also filed its maps in response to the Order on February 7, 2000.

On February 14, 2000, ICG filed a Notice of Supplemental Authority which included decisions of the Alabama and Georgia Public Service Commissions.

On February 14, 2000, ICG filed a letter to protest the letter filed by BellSouth with its maps stating that BellSouth used its transmittal letter as an opportunity to present its arguments on the tandem rate eligibility issue.

Discussions and Commission conclusions regarding the issues raised by BellSouth in its Objections and Request for Clarification and Reconsideration follow. These matters are addressed below by reference to the specific Findings of Fact which coincide with those findings set forth in the Commission Order entered in this docket on November 4, 1999, which are the subject of said Objections and Request for Clarification and Reconsideration.

FINDING OF FACT NO. 1: Until the FCC adopts a rule with prospective application, should dial-up calls to ISPs be treated as if they were local calls for the purposes of reciprocal compensation?

INITIAL COMMISSION DECISION

The Commission concluded that the parties should, as an interim inter-carrier compensation mechanism, pay reciprocal compensation for dial-up calls to ISPs at the rate the parties have agreed upon for reciprocal compensation for local traffic and as finally determined by the Commission's Order in this docket, subject to true-up at such time as the Commission has ruled pursuant to future FCC consideration of this matter.

COMMENTS/OBJECTIONS

BELLSOUTH: BellSouth has asked the Commission for clarification or reconsideration of the following:

1. Confirmation that any compensation paid pursuant to the interim inter-carrier compensation mechanism will be trued-up retroactively to the effective date of the Interconnection Agreement resulting from this Arbitration. BellSouth requested clarification on this point because of the dual true-up referenced by the Commission in its RAO _ (1) an interim true-up based on the establishment of final unbundled network element (UNE) rates and (2) a final true-up based on the upcoming FCC decision. BellSouth believes that the reciprocal compensation rates should be trued-up once the Commission establishes rates in the UNE docket without regard to any action from the FCC.

2. Clarification regarding the procedure that the parties are to utilize to effectuate the true-up. BellSouth argued that the true-up should be triggered and based upon an effective Order by the FCC. Theoretical alternative dates would be when the FCC decision is released, or as the Commission has implied, after Commission action pursuant to that Order.

3. Reconsideration of the interim-carrier compensation rates for ISP-bound traffic and consideration of an alternative for payment of those rates. BellSouth noted that the Commission had established interim inter-carrier compensation rates at the same level as reciprocal compensation rates for local traffic but, in light of the fact that the interim inter-carrier compensation plan adopted here will be the template for other agreements, BellSouth argued that the rates paid for ISP-bound traffic should reflect the

longer holding times associated with ISP-bound traffic. Specifically, BellSouth stated it is willing to accept the 20-minute call duration originally proposed by ICG in this Arbitration. This would yield a minute of use (MOU) total rate of $0.0022806.

BellSouth also requested that the Commission reconsider its ruling regarding payment and allow BellSouth to make payments pursuant to the plan in an interest-bearing escrow account. BellSouth cited substantial risk that it would be unable to recover those funds at final true-up, especially from smaller CLPs.

ICG: ICG urged the Commission to reject BellSouth's request that it modify the inter-carrier compensation rates for ISP-bound traffic based on an average call length (ACL) factor of 20 minutes. ICG argued that the costs it incurs for delivering calls to BellSouth customers are the same regardless of whether the called party is an ISP and thus there is no basis for a different compensation rate. ICG also chided BellSouth for attempting to insert new data in this proceeding purporting to show that the flow of compensation would be one-sided on a statewide basis by citing evidence in another proceeding (BellSouth/Time Warner, Docket No. P-472, Sub 15). Finally, ICG also maintained that BellSouth had not presented the Commission with a workable, alternative compensation mechanism.

ICG further noted that the 20-minute ACL proposal had been originally submitted by ICG itself in response to the Commission's Order seeking alternative approaches to compensation, but that the ICG proposal assumed that the proposed rate would be applied to all calls, not just ISP-bound calls. Moreover, ICG had noted that it had not done a study of actual call lengths and that the 20-minute figure was an "overly conservative" estimate of actual call lengths. In any event, the Commission rejected the ACL proposal. BellSouth is also using the new costs/rates which it proposed in the UNE docket, but these are final rates and not in effect yet. ICG further stated that ISP-bound calls are indistinguishable from other calls; thus there is not a reliable way to identify them.

With respect to BellSouth's requests for clarification, ICG expressed puzzlement. To the extent that BellSouth is asking whether the true-up will be to the final UNE rates and will occur when the FCC issues its final ruling, this would appear consistent with the Order. The true-up, however, should not occur upon the effective date of the FCC Order, since the Commission has made it plain that subsequent proceedings to implement the FCC ruling will be needed.

ICG emphatically rejected BellSouth's proposal that the payments be held in escrow as the Commission did in its original ruling.

PUBLIC STAFF: The Public Staff did not address this issue in its Response to Request for Reconsideration.

DISCUSSION

There are two major issues for consideration. The first is BellSouth's request for an alternative inter-carrier compensation mechanism based on a 20-minute ACL rather than one based on the sum of certain UNE rates. The other is BellSouth's request for clarification.

With respect to the first item, the Commission sees no reason to depart from the decision that it has already made on this matter. It is, to say the least, ironic for BellSouth to propose what in essence was a tentative proposal, later withdrawn, originally made by ICG in response to the Commission's request for "creative thinking" on inter-carrier compensation. Apparently, the merits of this proposal became obvious to BellSouth only after its own proposal was rejected. Meanwhile, the merits have become less persuasive

to ICG, since it extensively critiqued the deficiencies of the ACL proposal in its reply to BellSouth. This only fortifies the Commission's belief that it would be on the right track to stand by an interim mechanism that is relatively simple and straight forward and tracks the reciprocal compensation rates applicable to other calls.

With respect to BellSouth's request for clarification regarding the inter-carrier compensation rates for ISP-bound traffic, the Commission makes the following clarification:

1. There is to be a first true-up applicable to all traffic subject to reciprocal compensation when the interim UNE rates become final UNE rates. However, if the final UNE rates are effective before the Interconnection Agreement becomes effective, then the final UNE rates will apply, and no such true-up will be necessary. The true-up will be retroactive to the effective date of the Interconnection Agreement resulting from this Arbitration.

2. There is to be a second true-up applicable to ISP-bound traffic at such time as the Commission has issued an Order setting up a permanent inter-carrier compensation mechanism for ISP-bound traffic. The true-up will be retroactive to the effective date of the Interconnection Agreement resulting from this Arbitration.

Finally, with respect to BellSouth's request that BellSouth be allowed to make payments into an interest-bearing escrow account rather than to the CLPs, the Commission finds it appropriate to reject this proposal for the reasons originally set out in the RAO.

CONCLUSIONS

The Commission upholds and reaffirms its original decision in this regard. Further, the Commission finds it appropriate to clarify the true-up process as outlined above.

FINDING OF FACT NO. 2: For purposes of reciprocal compensation, should ICG be compensated for end office, tandem, and transport elements of termination where ICG's switch services a geographic area comparable to the area served by BellSouth's tandem switch?

INITIAL COMMISSION DECISION

The Commission concluded that ICG's Charlotte switch serves an area comparable to that served by BellSouth's Charlotte tandem switch and ICG's switch also provides the same functionality as that provided by BellSouth's tandem switch. For reciprocal compensation purposes, the Commission found that ICG is entitled to compensation at the tandem interconnection rate (in addition to the other appropriate rates) where its switch serves a geographic area comparable to that served by BellSouth's tandem switch.

COMMENTS/OBJECTIONS

BELLSOUTH: BellSouth contended that in its RAO, the Commission relied heavily on FCC Rule 51.711(a)(3), and failed to consider the FCC's *discussion* of Rule 51.711, which sets forth a two-prong test that must be satisfied prior to a CLP being entitled to reciprocal compensation at the ILEC's tandem interconnection rate. BellSouth noted that, in its discussion, the FCC identified two requirements that ICG, or any CLP, must satisfy in order to be compensated at the tandem interconnection rate: (1) the CLP's network must perform functions similar to those performed by the ILEC's tandem switch; and (2) the CLP's switch must serve a geographic area comparable to the geographic area served by the ILEC.

BellSouth stated that ICG failed to satisfy the first prong of the FCC's two-prong test because ICG's network does not actually perform functions similar to those performed by BellSouth's tandem switch. While ICG's switch may be capable of performing tandem switching functions when connected to end office switches, capability is not the test. Throughout the testimony, ICG repeatedly concluded that ICG's switch "performs the same functionality as the BellSouth tandem switch and end office switch combined." ICG, however, did not offer any evidence to support a conclusion that the ICG switch actually performs functions similar to BellSouth's tandem switch.

BellSouth contended that the only evidence presented by ICG concerning switch functionality revolved around a network diagram attached to witness Starkey's direct testimony. (Starkey direct, at page 22 - diagram 3.) Based on ICG's network diagram, it is clear that: (1) ICG does not interconnect end offices or perform trunk-to-trunk switching, but rather performs line-to-trunk or trunk-to-line switching; (2) to the extent ICG has a switch in North Carolina, it performs only end-office switching functions and does not switch BellSouth's traffic to another ICG switch; and (3) based on the information provided, ICG's switch does not provide other centralization functions, namely call recording, routing of calls to operator services, and signaling conversion for other switches, as BellSouth's tandems do and as required by the FCC's rules.

BellSouth argued that while ICG witness Starkey insists that ICG's switch performs the same functions as a BellSouth tandem switch, the network design included in witness Starkey's testimony shows that each of ICG's collocation arrangements serve only as an intermediate point in ICG's loop plant. Without specific information from ICG to the contrary, the "piece of equipment" in ICG's collocation cage appears to be nothing more than a Subscriber Loop Carrier, which is part of loop technology and provides no "switching" functionality. ICG's switch is not providing a transport or tandem function, but is switching traffic through its end office for delivery of traffic from that switch to the called party's premises. No switching is performed in these collocation arrangements. These lines are simply long loops transported to ICG's switch; they are not trunks. Long loop facilities do not quality as facilities over which local calls are transported and terminated as described by the Telecommunications Act of 1996 (TA96) and therefore are not eligible for reciprocal compensation.

BellSouth stated that other state commissions have rejected arguments that a CLP's switch performs the same functions as a tandem switch. BellSouth specifically referenced orders by the Florida Public Service Commission which concluded that "...MCI is not entitled to compensation for transport and tandem switching unless it actually performs each function." Order No. PSC-97-0294-FOF-TP, Docket 962121-TP, at 1011 (March 14, 1997), and also Order No. PSC-96-1532-FOF-TP, Docket No. 960838-TP, at 4 (December 16, 1996) which concluded that "...evidence in the record does not support MFS' position that its switch provides the transport element; and the Act does not contemplate that the compensation for transporting and terminating local traffic should be symmetrical when one party does not actually use the network facility for which it seeks compensation."

BellSouth argued that even assuming ICG's switch performs the same functions as BellSouth's tandem switch, there is no evidence in the record that ICG's switch serves a geographic area comparable to BellSouth's tandem switch. BellSouth pointed out there is a distinction between actually serving and being capable of serving. BellSouth stated that, in fact, other than generally referencing ICG switches, there is no record evidence that ICG has a switch in North Carolina.

BellSouth contended that when it attempted to determine the number of customers ICG has in North Carolina, ICG conveniently refused, claiming that such information was proprietary. BellSouth stated that ICG also failed to identify where the unknown number of customers are located - information that is essential to support a finding that ICG's switch serves a comparable geographic area. BellSouth contended that under no set of circumstances could ICG seriously argue in such a case that its switch services a

comparable geographic area to BellSouth. See Decision 99-09-069, In Re: Petition of Pacific Bell for Arbitration of an Interconnection Agreement with MFS/WorldCom, Application 99-03-047, at 15-16 (September 16, 1999) California Public Service Commission (finding "unpersuasive" MFS's showing that its switch served a comparable geographic area when many of MFS's ISP-bound customers were actually collocated with MFS's switch.)

BellSouth contended that ICG failed to make a showing that its network performs functions similar to those performed by BellSouth's tandem switch and that its switch serves a geographic area comparable to BellSouth's. For these reasons, BellSouth argued that the Commission should reconsider its decision and deny ICG's request for reciprocal compensation at the tandem interconnection rate.

ICG: ICG contended that the Commission's determination that ICG is entitled to reciprocal compensation at BellSouth's tandem interconnection rate is supported by the evidence of record. In response to BellSouth's claim that the Commission failed to consider the FCC's discussion of Rule 51.711, specifically, that the Commission failed to address both parts of the FCC's two-prong test, ICG contended that the Commission did consider BellSouth's contention that Rule 51.711 contains a two criterion test and squarely rejected it. The Commission expressly held that the FCC "requires only that a CLP's switch serve a geographic area comparable to that served by an ILEC's tandem to qualify for the tandem termination rates." The Commission should summarily reject BellSouth's attempt to re-argue a point on which the Commission has clearly, and correctly, ruled.

ICG further argued that the only relevant criterion is whether ICG's switch serves a geographic area comparable to that served by BellSouth's tandem. BellSouth simply refuses to recognize that the evidence it claims to be nonexistent is amply spread throughout the record and that it is totally consistent with the Commission's findings and conclusions on this issue. ICG witnesses Starkey and Schonhaut presented evidence demonstrating that ICG's switch serves a comparable geographic area to that served by BellSouth's tandem switch.

ICG contended that the record evidence is uncontroverted. BellSouth has not so much as suggested, much less proven, that the geographic area served by its tandem switch is not comparable to the area served by ICG's switch. Nor did BellSouth introduce any evidence whatsoever and did not cross-examine ICG's witnesses on this point.

ICG further contended that the record in this proceeding clearly demonstrates that ICG's switch also provides the same functionality as BellSouth's tandem. As ICG witness Starkey testified: "ICG's switching platform transfers traffic amongst discrete network nodes that exist in the ICG network for purposes of serving groups of its customers in exactly the same fashion that [BellSouth's] tandem switch distributes traffic."

ICG argued that BellSouth misses the point of Rule 51.711. BellSouth essentially argues that ICG's switch cannot meet the tandem switching definition because ICG's switch does not route traffic between other ICG switches. Rule 51.711 contemplates that a single CLP switch will serve the same function in the CLP's network that a tandem and multiple serving central office switches serve in the ILEC's network. The rule would be rendered meaningless if CLPs were required to duplicate the ILEC's network architecture in order to qualify for the tandem rate. The FCC made clear that in constructing their networks CLPs may opt to use new technologies that were unavailable when the ILEC's networks were designed: "... states shall ... consider whether new technologies (e.g. fiber ring or wireless networks) perform functions similar to those performed by an incumbent LEC's tandem switch and, thus, whether some or all calls terminating on the new entrant's network should qualify for the tandem rate." ICG contended that its fiber ring is precisely the sort of new technology the FCC had in mind when it adopted Rule 51.711.

In its Reply to the Public Staff's Response to Request for Reconsideration, ICG restated that Rule 51.711 of the FCC rules provides a single criterion for tandem rate eligibility _ whether the competing carrier's switch serves an area comparable to that of the ILEC's tandem switch. ICG maintained that the Commission thus correctly rejected the Public Staff's argument that, in order to qualify for the tandem rate, Rule 51.711 requires a competing carrier to also demonstrate that its switch provides functionality similar to that provided by the incumbent's tandem switch.

ICG maintained that Rule 51.711 speaks for itself and is unambiguous. If a competing carrier is able to make the geographic showing, it is entitled to the tandem rate, regardless of whether it is able to make the functionality showing.

ICG suggested that the Public Staff's Response should be disregarded and that BellSouth's Request should be denied. As noted in ICG's Opposition to BellSouth's Request, ICG's evidence that the ICG switch serves an area comparable to that served by the BellSouth tandem is uncontroverted in the record.

ICG also contended that even though it is not required, the record demonstrates that ICG's switch functions as a tandem. ICG explained that its witness Starkey offered detailed testimony explaining the configuration of ICG's network and specifically addressed the switch functionality issue. Witness Starkey testified that ICG's network consists of a Lucent 5ESS switch which performs both Class 4 and Class 5 functions, SONET nodes collocated at BellSouth end offices and in ICG on-network buildings, and a fiber optic ring.

ICG contended that the fact that ICG's network incorporates collocated SONET nodes instead of Class 5 central office switches, as BellSouth witness Varner pointed out in his direct testimony, is irrelevant. This difference in architecture between the two networks is a result of the technology each carrier has chosen in an effort to best serve its particular customer base. Witness Starkey testified:

> At the time the majority of the ILEC network was built, switches were very limited in the number of individual lines they could service and copper plant was the most expensive portion of the network to deploy. Therefore, ILECs chose to trade switching costs for copper plant costs by deploying greater numbers of switches and shorter copper loops. However, with the advent of relatively inexpensive fiber optic transport facilities and the enormous switching capacity available in today's switching platforms, the economics of the switch/transport tradeoff have changed.

As witness Starkey further explained in his testimony, ICG's network consists of a centrally-located host switch (defined in the Local Exchange Routing Guide (LERG) as a combination Class 4/Class 5 switch) that supports other, individual switching nodes that are collocated either in BellSouth central offices or in customer locations. ICG's fiber optic ring connects these discrete switching nodes within its network and transfers traffic amongst those nodes. This is exactly the function that BellSouth's tandem switch serves in the BellSouth network. The fact that ICG is not required to place fully-featured Class 5 switches in each collocation does not detract from the fact that the ICG network performs exactly the same function as the BellSouth network; it simply uses a different architecture to accomplish the same tasks. This is exactly what the FCC envisioned in paragraph 1090 of the Local Competition First Report and Order when it directed state commissions to "...consider whether new technologies (e.g. fiber ring or wireless networks) perform functions similar to those performed by an incumbent LEC's tandem...."

ICG stated that the arguments of the Public Staff and BellSouth are premised on the faulty assumption that competing carriers must mimic the incumbents' network to qualify for the tandem interconnection rate.

ICG believes that tandem rate eligibility depends solely on geographic service area comparability as expressly provided in Rule 51.711. However, even if the Commission were to conclude that functionality is a second requirement, the Commission could not conclude that identical functionality is the standard. The often quoted paragraph 1090 from the Local Competition First Report and Order expressly contemplates that competing carriers will employ different network architectures than those used by incumbents. In that Order, the FCC notes that new technologies may "perform functions similar - not identical - to those performed by incumbents' tandem switches."

ICG contended that the Public Staff is mistaken in its belief that ICG relies on the fact that its switch serves as a point of interconnection for interexchange carriers (IXCs) and an access point for operator services to establish the tandem status of ICG's switch. These two functions are included in a general description of tandem functionality. Witness Starkey testified that the ICG switch performs nearly all of the functions included in the tandem definition included in the LERG. Indeed, the LERG definition provides that a switch is defined as a tandem if it performs one or more of a list of functions. Witness Starkey testified that the ICG switch performed "nearly all" of the functions enumerated in the LERG. ICG reiterated, however, that no FCC rule or order makes inclusion of a switch in the LERG a requirement for tandem rate eligibility.

In conclusion, ICG stated it has met its burden of proving that its Charlotte switch serves an area comparable to that of BellSouth's tandem. ICG asserted that the record evidence on this issue is uncontroverted, and there is no basis to disturb the Commission's conclusion.

PUBLIC STAFF: The Public Staff did not address this issue in its Proposed Order. However, in its Response to Request for Reconsideration, the Public Staff stated that it now believes that the Commission should reconsider and reverse its finding on this issue on the grounds that ICG failed to demonstrate that its switch provides the tandem function in terminating a call delivered to it by a LEC.

The Public Staff indicated that by reading Paragraph 1090 of the FCC's First Report and Order in CC Docket No. 96-98, FCC 96-325, 11 FCC Rcd 15499, as a whole, and as an indication of the FCC's intent in promulgating Rule 51.711, it is clear that the functionality of the interconnecting carrier's network must be considered for the purpose of determining whether the carrier should be compensated for tandem switching. The FCC specifically directs the states to consider whether new technologies (e.g., fiber ring or wireless networks) perform functions similar to those performed by an ILEC's tandem switch. If the only requirement were that the interconnecting carrier's switch serve an area comparable to the LEC's tandem switch, any consideration of the new technologies would be completely irrelevant.

The Public Staff contended that ICG's fiber ring is apparently a means of connecting its switch to its customers. Fiber rings can also be used to interconnect end office switches and to reroute traffic in the event that an interoffice circuit is cut. Such is the case with BellSouth. ICG's ring, on the other hand, does not extend between switches, but between ICG customers, and between ICG customers and the ICG switch from which dial tone is provided. Under normal circumstances, in the termination of a call delivered to ICG by BellSouth, the ICG ring does not perform a function even remotely similar to that of a tandem switch. It actually serves as the loop between the ICG switch, where end office switching is done, and the ICG customer. Tandem switching, if it was involved, would occur at the other end of the circuit, even before the call reached the end office from which dial tone is provided.

The Public Staff stated that ICG's assertions that its switch qualifies as a tandem because it serves as a point of interconnection for traffic to and from IXCs, and as ICG's access point for operator services for its customers are not persuasive. Even if these are considered tandem functions for some purposes, they have no bearing on the issue at hand unless they are actually employed in the process of terminating calls

delivered to ICG by BellSouth. Since they are not so employed, they do not qualify ICG for tandem switching and transport compensation.

The Public Staff recommended that the Commission reconsider and reverse Finding of Fact No. 2 and Ordering Paragraph No. 2 of the RAO dated November 4, 1999.

The Public Staff also suggested that the Commission consider this issue in conjunction with its deliberations in the pending arbitration between BellSouth and ITC^DeltaCom in Docket No. P-500, Sub 10.

DISCUSSION

The difference in the positions of the parties appears to be due to ambiguity between the language in the FCC's discussion of this issue, Paragraph 1090, and the language in the FCC's Rule 51.711.

ICG's position is that the only relevant criterion is whether ICG's switch serves a geographic area comparable to that served by BellSouth's tandem as stated in Rule 51.711(a)(3). However, even if that is the only requirement, ICG believes that its switch performs the same functionality as BellSouth's tandem switch as discussed in Paragraph 1090 of the FCC's First Report and Order.

BellSouth's position is that the discussion of Rule 51.711 which addresses functionality must be considered as well as Rule 51.711(a)(3) and that ICG does not meet either requirement.

The Public Staff's position supports that of BellSouth.

Paragraph 1090 of the First Report and Order states:

> We find that the "additional costs" incurred by a LEC when transporting and terminating a call that originated on a competing carrier's network are likely to vary depending on whether tandem switching is involved. We, therefore, conclude that states may establish transport and termination rates in the arbitration process that vary according to whether the traffic is routed through a tandem switch or directly to the end-office switch. *In such event, states shall also consider whether new technologies (e.g., fiber ring or wireless networks) perform functions similar to those performed by an incumbent LEC's tandem switch and thus, whether some or all calls terminating on the new entrant's network should be priced the same as the sum of transport and termination via the incumbent LEC's tandem switch.* (Emphasis added) Where the interconnecting carrier's switch serves a geographic area comparable to that served by the incumbent LEC's tandem switch, the appropriate proxy for the interconnecting carrier's additional costs is the LEC tandem interconnection rate. (First Report and Order, CC Docket 96-98, Paragraph 1090) (August 6, 1996).

Rule 51.711(a)(3) states:

> Where the switch of a carrier other than an incumbent LEC serves a geographic area comparable to the area served by the incumbent LEC's tandem switch, the appropriate rate for the carrier other than an incumbent LEC is the incumbent LEC's tandem interconnection rate.

On February 7, 2000, ICG and BellSouth filed maps in response to a Commission Order. BellSouth filed a map depicting the geographic coverage of BellSouth's local access and transport area (LATA) tandem switch and a map depicting BellSouth's local tandem switch in the Charlotte area. ICG filed a map

showing ICG's Charlotte serving area. These maps are hereby allowed in evidence in this proceeding as late-filed exhibits.

The Commission is unpersuaded by the arguments of BellSouth and the Public Staff in this matter. The Commission believes, based on the evidence in the record, including the maps filed by the parties on February 7, 2000, that ICG has met its burden of proof that its switch serves a comparable geographic area to that served by BellSouth's tandem switch for the Charlotte serving area. Although such information may be both useful and relevant, the Commission can find no basis for BellSouth's argument that the location of actual customers is essential to support a finding that ICG's switch serves a geographic area comparable to the area served by BellSouth's tandem switch in either Paragraph 1090 or Rule 51.711 of the FCC's First Report and Order. The Commission believes that the testimony of ICG witness Starkey was more cogent and convincing than that of BellSouth witness Varner and that witness Starkey clearly demonstrated that the technologies employed by ICG's network provide functions that are the same as or similar to the functions performed by BellSouth's tandem switch and, in fact, meet both the criteria discussed in the parties' filings.

Since we are persuaded that ICG has demonstrated both geographic and functional capability in this case, we believe that it is unnecessary at this time to decide the question of whether both criteria must be satisfied in order for a CLP such as ICG to receive compensation at the tandem interconnection rate for reciprocal compensation purposes.

CONCLUSIONS

The Commission upholds and reaffirms its original decision and concludes that for reciprocal compensation purposes, based on the fact that ICG's Charlotte switch serves an area comparable to that served by BellSouth's Charlotte tandem switch and provides functionality the same as or similar to that provided by BellSouth's tandem switch, ICG is entitled to compensation at the tandem interconnection rate.

The Commission strongly advises parties involved in future arbitrations where inclusion of the tandem switch element for reciprocal compensation purposes is an issue to file maps showing their serving areas as compared to that of the ILEC serving area, along with substantial testimony including a description of the switch(es) and associated technology necessary to provide service; the number and location of customers, if available; and any other information relevant to capability or intent to serve.

IT IS, THEREFORE, ORDERED as follows:

1. That the Composite Agreement submitted by BellSouth and ICG is hereby approved, subject to such modifications as may be required by this Order.

2. That BellSouth and ICG shall revise the Composite Agreement in conformity with the provisions of this Order and shall file the revised Composite Agreement for review and approval by the Commission not later than 15 days from the date of this Order. Should no revisions be necessary to the Composite Agreement, the parties shall so advise the Commission not later than 15 days from the date of this Order.

3. That the Commission will entertain no further comments, objections, or unresolved issues with respect to issues previously addressed in this arbitration proceeding.

4. That the maps filed in this docket by BellSouth and ICG on February 7, 2000, be, and the same are hereby, admitted in evidence as late-filed exhibits.

ISSUED BY ORDER OF THE COMMISSION.

This the 1st day of March, 2000.

NORTH CAROLINA UTILITIES COMMISSION
Geneva S. Thigpen, Chief Clerk

bc030100.01

11-4-99
D. Allen
S. Parrott
M. Potter
D. Thorrington
S. Gregory

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. P-582, SUB 6

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of		
Petition by ICG Telecom Group, Inc. For Arbitration of Interconnection Agreement with BellSouth Telecommunications, Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996	))))	RECOMMENDED ARBITRATION ORDER

HEARD IN: Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina, on Tuesday, August 3, 1999

BEFORE: Chairman Jo Anne Sanford, Presiding; and Commissioners Robert V. Owens, Jr. and Sam J. Ervin, IV

APPEARANCES:

FOR ICG TELECOM GROUP, INC.:

Henry Campen, Jr., Parker, Poe, Adams & Bernstein, First Union Capitol Center, Suite 1400, 150 Fayetteville Street Mall, Raleigh, North Carolina 27602

Albert H. Kramer, Dickstein, Shapiro, Morin & Oshinsky, 2101 L Street NW, Washington, D.C. 20037-1526

FOR BELLSOUTH TELECOMMUNICATIONS, INC.:

Edward L. Rankin, III, General Counsel - North Carolina, BellSouth Telecommunications, Inc., Post Office Box 30188, Charlotte, North Carolina 28230

A. Langley Kitchens, General Attorney, and E. Earl Edenfield, Jr., General Attorney, BellSouth Telecommunications, Inc., 675 West Peachtree Street, Atlanta, Georgia 30075

FOR THE USING AND CONSUMING PUBLIC:

Robert B. Cauthen, Jr., Staff Attorney, Public Staff - North Carolina Utilities Commission, Post Office Box 29520, Raleigh, North Carolina 27626-0520

BY THE COMMISSION: This arbitration proceeding is pending before the North Carolina Utilities Commission pursuant to Section 252(b) of the Telecommunications Act of 1996 (TA96 or the Act) and Section 62-110(f1) of the North Carolina General Statutes. On May 27, 1999, ICG Telecom Group, Inc. (ICG) filed a Petition in this docket which initiated this proceeding. By its Petition, ICG requested that the Commission arbitrate certain terms and conditions with respect to interconnection between itself as the petitioning party and BellSouth Telecommunications, Inc. (BellSouth).

The purpose of this arbitration proceeding is for the Commission to resolve the issues set forth in the Petition and Responses. 47 U.S.C.A. Section 252(b)(4)(C). Under the Act, the Commission shall ensure that its arbitration decision meets the requirements of Section 251 and any valid Federal Communications Commission (FCC) regulations pursuant to Section 252. Additionally, the Commission shall establish rates according to the provisions in 47 U.S.C.A. Section 252(d) for interconnection, services or network elements, and shall provide a schedule for implementation of the terms and conditions by the parties to the agreement. 47 U.S.C.A. Section 252(c).

Pursuant to Section 252 of TA96, the FCC issued its First Report and Order in CC Docket Numbers 96-98 and 95-185 on August 8, 1996 (Interconnection Order). The Interconnection Order adopted a forward-looking incremental costing methodology for pricing unbundled network elements (UNEs) which an incumbent local exchange company (ILEC) must sell new entrants, adopted certain pricing methodologies for calculating wholesale rates on resold telephone service, and provided proxy rates for State Commissions that did not have appropriate costing studies for UNEs or wholesale service. Several parties, including this Commission, appealed the Interconnection Order and on October 15, 1996, the United States Court of Appeals for the Eighth Circuit issued a stay of the FCC's pricing provisions and its "pick and choose" rule pending the outcome of the appeals.

The July 18, 1997 ruling of the Eighth Circuit, as amended on rehearing October 14, 1997, was largely in favor of state regulatory commissions and local phone companies and adverse to the FCC and potential competitors, primarily long distance carriers. The Eight Circuit held that 47 U.S.C.A. Sections 251 and 252 "authorize the state commissions to determine the prices an incumbent LEC may charge for fulfilling its duties under the Act." The Court of Appeals also vacated the FCC's "pick and choose rule." Iowa Utilities Board v. FCC, 120 F.3d 753 (8th Cir. 1997).

On January 25, 1999, the United States Supreme Court entered its Opinion in AT&T Corp. v. Iowa Utilities Board, 119 S.Ct. 721 (1999). The Supreme Court held, in pertinent part, that (1) the FCC has jurisdiction under Sections 251 and 252 of the Act to design a pricing methodology and adopt pricing rules; (2) the FCC's rules governing unbundled access are, with the exception of Rule 319, consistent with the Act; (3) it was proper for the FCC in Rule 319 to include operator services and directory assistance, operational

support systems, and vertical switching functions such as caller I.D., call forwarding, and call waiting within the features and services that must be provided by competitors; (4) the FCC did not adequately consider the Section 251(d)(2) "necessary and impair" standards when it gave requesting carriers blanket access to network elements in Rule 319; (5) the FCC reasonably omitted a facilities-ownership requirement on requesting carriers; (6) FCC Rule 315(b), which forbids ILECs to separate already-combined network elements before leasing them to competitors, reasonably interprets Section 251(c)(3) of the Act, which establishes the duty to provide access to network elements on nondiscriminatory rates, terms, and conditions and in a manner that allows requesting carriers to combine such elements; and (7) FCC Rule 809 (the "pick and choose" rule), which tracks the pertinent language in Section 252(i) of the Act almost exactly, is not only a reasonable interpretation of the Act, it is the most readily apparent. The Supreme Court remanded the cases back to the Eighth Circuit Court of Appeals for proceedings consistent with its opinion.

On June 10, 1999, the Eighth Circuit Court of Appeals entered an Order on remand in response to the Supreme Court's decision which, in pertinent part, reinstated FCC Rules 501-515, 601-611, and 701-717 (the pricing rules), Rule 809 (the "pick and choose" rule), and Rule 315(b) (ILECs shall not separate requested network elements which are currently combined). The Eighth Circuit also vacated FCC Rule 319 (specific unbundling requirements). The Court set a schedule for briefing and oral argument of those issues which it did not address in its initial opinion because of its ruling on the jurisdictional issues. The Court also requested the parties to address whether it should take any further action with respect to FCC Rules 315(c) - (f) regarding unbundling requirements. Iowa Utilities Board v. FCC, ____ F.3d ____ (Order Filed June 10, 1999).

By Order dated June 8, 1999, the Commission set this matter for hearing on July 6, 1999. By Order dated June 17, 1999, the Commission rescheduled the hearing in this matter for August 2, 1999.

On July 14, 1999, the Commission issued an Order stating that it would not consider the three issues presented by ICG that dealt with UNEs.

At the start of the hearing, ICG and BellSouth presented a Statement of Stipulation, which withdrew from consideration ten of the remaining twenty-three issues for which arbitration had been requested.

At the hearing which began as rescheduled on August 3, 1999, ICG offered the direct and rebuttal testimony of Karen Notsund, Senior Director of Governmental Affairs for ICG; the direct testimony of Phillip Jenkins, Senior Director of Engineering and Operations for the Southeast Region for ICG; the direct, supplemental, and rebuttal testimony of Michael Starkey, President of Quantitative Solutions, Inc., a consulting firm; and the direct and rebuttal testimony of Cindy Z. Schonhaut, Executive Vice President for

Government and Corporate Affairs for ICG. BellSouth offered the direct and supplemental testimony of Alphonso J. Varner, Senior Director for State Regulatory Affairs.

WHEREUPON, based upon a careful consideration of the entire record in this arbitration proceeding, the Commission now makes the following

FINDINGS OF FACT

1. The parties should, as an interim inter-carrier compensation mechanism, pay reciprocal compensation for dial-up calls to Internet service providers (ISPs) at the rate the parties have agreed upon for reciprocal compensation for local traffic and as finally determined by this Order, subject to true-up at such time as the Commission has ruled pursuant to future FCC consideration of this matter.

2. ICG's Charlotte switch serves an area comparable to that served by BellSouth's Charlotte tandem switch and ICG's switch also provides the same functionality as that provided by BellSouth's tandem switch. For reciprocal compensation purposes, ICG is entitled to compensation at the tandem interconnection rate (in addition to the other appropriate rates) where its switch serves a geographic area comparable to that served by BellSouth's tandem switch.

3. The Commission declines to decide at this time whether BellSouth should be required to commit to provisioning the requisite network buildout and necessary support. The Commission encourages BellSouth and ICG to continue to negotiate on this issue. Further, the Commission notes that since a similar provision is found in BellSouth's Revised Statement of Generally Available Terms (SGAT) and at least one interconnection agreement, it would appear reasonable for a similar provision to be voluntarily included in the BellSouth/ICG interconnection agreement.

4. The issue of performance measurements and liquidated damages has been, in essence, withdrawn from the arbitration and accordingly is not in need of resolution in this docket. Further, the Commission will create a new docket, Docket No. P-100, Sub 133k, and issue an Order in that docket establishing the generic docket and requesting that the industry, the Public Staff, the Attorney General, and any other interested parties form a Task Force to attempt to agree on all potential issues concerning performance measurements and enforcement mechanisms. Further, the Commission will issue an Order in Docket No. P-100, Sub 133i (AT&T's Petition for Third-Party Testing) stating that the Commission is investigating performance measurements in a generic docket as a first step, but will keep the third-party testing docket open for future consideration.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 1

MATRIX ISSUE NOS. 1 AND 8: Until the FCC adopts a rule with prospective application, should dial-up calls to ISPs be treated as if they were local calls for the purposes of reciprocal compensation?

POSITIONS OF PARTIES

ICG: Yes. Until the FCC adopts a rule of prospective application, reciprocal compensation is appropriate for calls to ISPs. In the meantime, the FCC's Declaratory Ruling clearly contemplates that state commissions may adopt interim reciprocal compensation arrangements. ICG incurs costs on behalf of BellSouth whenever it terminates calls originated by BellSouth's end users to ISPs served by ICG. Without payment of reciprocal compensation, ICG will not receive compensation at all until the FCC adopts a prospective compensation rule at some indefinite point in the future. ISPs are an important market segment for competing local providers (CLPs) which is well on its way to effective competition. Eliminating ICG's ability to recover its cost for transport and delivery of BellSouth-originated calls to ICG-served ISPs will negatively impact that competition.

Originally, ICG made an adjusted call length (ACL) proposal for development of a reciprocal compensation rate applicable to voice and Internet calls. The ACL proposal spread the set up costs of a call over a longer hold time to derive a per-minute cost for all calls to be more indicative of current traffic patterns. The ACL proposal assumed that all calls were longer and thus derived a single compensation rate ($0.0048 per minute) that would apply to all calls.

However, ICG abandoned this proposal and now advocates that ILECs and CLPs should be compensated for transport and delivery of ISP-bound calls based on the "elemental" rates established in the UNE docket—namely, transport; end office, and tandem switching. ICG argued that such a total element long-run incremental cost (TELRIC)-based compensation mechanism is more likely to be consistent with whatever is ultimately adopted by the FCC.

ICG criticized BellSouth's proposal for an inter-carrier compensation mechanism based on the access charge regime. The FCC has repeatedly and explicitly rejected the proposition that ISPs are purchasers of access services. Similarly, ICG also rejected the view that carriers should simply track ISP traffic and apply the rate ultimately adopted retroactively. This is tantamount to ignoring the issue and puts an unacceptable burden on fledgling competitors.

BELLSOUTH: No. The FCC's Declaratory Ruling confirmed unequivocally that the FCC has and will exercise jurisdiction over ISP traffic as interstate, not local. Under the Act and the FCC rules, only local traffic is subject to reciprocal compensation obligations.

BellSouth proposed an inter-carrier compensation plan which it contended was more in line with the interstate access nature of ISP traffic. BellSouth proposed that the terminating carrier should share 9.3% of the revenue derived from a call with the carrier originating the call. This figure represents half of the switching and transport portion of average voice grade traffic.

PUBLIC STAFF: Yes. The Commission determined in its February 26, 1998, Order in Docket No. P-55, Sub 1027, that calls to ISPs would be treated as local and therefore subject to reciprocal compensation. In its Declaratory Ruling, the FCC not only left such determinations undisturbed but explicitly allowed for the prospective requirement of reciprocal compensation in arbitration proceedings.

DISCUSSION

Testimony regarding this issue was presented by ICG witnesses Starkey and Schonhaut and BellSouth witness Varner.

The issue of reciprocal compensation for ISP-bound traffic is an exceedingly complex one. This arbitration is the first opportunity that the Commission has had since the FCC's Declaratory Ruling released on February 26, 1999, in CC Docket Nos. 96-98 and 99-68 to address what should happen in the interim period between that ruling and the point at which the FCC will presumably furnish further guidance.

The Declaratory Ruling has plainly held that ISP-bound traffic is largely jurisdictionally interstate. The Declaratory Ruling has also plainly held that the FCC will decline "to interfere with state commission findings as to whether reciprocal compensation provisions of interconnection agreements apply to ISP-bound traffic, pending adoption of a rule establishing an appropriate interstate compensation mechanism." (Paragraph 21). The FCC further stated at Paragraph 25, that "[e]ven where parties to interconnection agreements do not voluntarily agree on an inter-carrier compensation mechanism for ISP-bound traffic, state commissions nonetheless may determine in their arbitration proceedings at this point that reciprocal compensation should be paid for this traffic." The Declaratory Ruling is both a statement of principle — that ISP traffic is interstate — and a concession to practicality — that previous state decisions and interim period decisions not necessarily consistent with this principle will not be disturbed.

The Commission commends ICG and BellSouth for their efforts in presenting interim proposals for ISP compensation in response to the Commission's June 16, 1999, Order Concerning Interim Proposals for Compensation in which the Commission asked the

parties for "creative thinking" concerning interim prospective compensation mechanisms for ISP traffic which would be subject to true-up. Of the proposals received from the parties, the Commission believes that ICG's proposal, which is based on UNE rates, has the greater merit.

In response to a September 29, 1999, data request from the Chair filed on October 11, 1999, the parties indicated that, although they had not agreed upon a rate structure for reciprocal compensation for local traffic, they had agreed on a rate level.[1] The parties now agree that the rates applicable to reciprocal compensation should be the interim elemental rates as ordered by the Commission in Docket No. P-100, Sub 133d, subject to true-up when the Commission issues final rates, under the same terms as those in the current Agreement between the parties.[2]

Thus, the parties have agreed on a proposal for reciprocal compensation for local traffic which is very similar to that proposed by ICG as an interim measure for ISP traffic. Both proposals are based on the UNE rates.

The Commission believes that, in light of the complexity of the task of arriving at a separate interim rate for ISP traffic, the uncertainty as to the substance of the FCC's future decision, and the relative shortness of time in which any interim proposal would be in effect, the better course of action is to require the parties to pay inter-carrier compensation for dial-up calls to ISPs at the same level and in the same manner that the parties have agreed upon for reciprocal compensation for local traffic and as determined by the Commission's Order in this Order[3]. The ISP rate would be subject to true-up based upon the FCC's future decision and this Commission's Order pursuant to it.

The Commission believes that this course of action is preferable to simply keeping track of the minutes for settlement at a later date. The latter proposal may adversely affect competition because CLPs such as ICG will not have the "bird in the hand" to pay their

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[1] Tandem switching as part of the rate structure is addressed in Issue No. 2. There are four elements applicable to reciprocal compensation — the end office switch element, the tandem switching element, the common transport element, and the common transport facilities termination element. ICG contends that it should recover the sum of the four elements while BellSouth believes that ICG is not entitled to the tandem switching element.

[2] These rates are: End Office Switching, $0.004 per minute of use (mou); Tandem Switching, $0.0015 per mou; Common Transport, $0.00004 per mile per mou; and Common Transport Facilities Termination, $0.00036 per mou. (Dedicated facilities termination may be used instead of common transport with facilities' termination).

[3] That is, the applicable rate structure for reciprocal compensation tandem switching as determined elsewhere in this Order. It is the Commission's intent that the ISP inter-carrier compensation rate track the reciprocal compensation rate exactly until such point as the Commission has ruled pursuant to the FCC's future ISP Order.

bills, even while they continue to incur costs. At the same time, the application of the reciprocal compensation rate for ISP traffic as an interim inter-carrier compensation mechanism is ultimately just because there will come a time when the parties must settle up based on the new rule. While not perfect, this approach is the one that does the least harm to the companies and to the public interest in a competitive marketplace.

CONCLUSIONS

The Commission concludes that the parties should, as an interim inter-carrier compensation mechanism, pay reciprocal compensation for dial-up calls to ISPs at the rate the parties have agreed upon for reciprocal compensation for local traffic and as finally determined by the Commission's Order in this docket, subject to true-up at such time as the Commission has ruled pursuant to future FCC consideration of this matter.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 2

MATRIX ISSUE NO. 7: For purposes of reciprocal compensation, should ICG be compensated for end office, tandem, and transport elements of termination where ICG's switch services a geographic area comparable to the area served by BellSouth's tandem switch?

POSITIONS OF PARTIES

ICG: Yes. FCC Rule 51.711 requires that where the interconnecting carrier's switch serves a geographic area comparable to that served by the incumbent, the appropriate rate for the interconnecting carrier's additional cost is the incumbent's tandem interconnection rate. To be eligible for this rate, the FCC's Order requires only that the interconnecting carrier's switch serve the same geographical area as the incumbent's switch. ICG deploys a single switch to service its Charlotte market served by a common transport network. The advent of fiber optic technologies and multi-function switching platforms has allowed ICG to serve an entire statewide or local access and transport area (LATA)-wide customer base from a single switch. The ability to aggregate unbundled local loops from collocations in a number of ILEC central offices while transporting that traffic to a single location permits ICG to originate, switch, and terminate traffic between callers many miles apart. ICG's switch performs the same functionality as the BellSouth tandem switch. ICG's Lucent 5ESS switching platform meets the definition and performs the same functions identified within the Local Exchange Routing Guide (LERG) for a tandem office and for a Class 4/5 switch.

BELLSOUTH: No. If a call is not handled by a switch on a tandem basis, it is not appropriate to pay reciprocal compensation for the tandem switching function. BellSouth will pay the tandem interconnection rate only if ICG's switch is identified in the LERG as a tandem. ICG is seeking to be compensated for the cost of equipment it does not own

and for functionality it does not provide. Therefore, ICG's request for tandem switching compensation when tandem switching is not performed should be denied.

PUBLIC STAFF: The Public Staff did not address this issue in its Proposed Order.

DISCUSSION

Testimony on this issue was presented by ICG witness Starkey and BellSouth witness Varner.

BellSouth witness Varner stated that "BellSouth's position is that if a call is not handled by a switch on a tandem basis, it is not appropriate to pay reciprocal compensation for the tandem switching function. BellSouth will pay the tandem interconnection rate only if ICG's switch is identified in the local exchange routing guide ("LERG") as a tandem." Witness Varner explained that a tandem switch connects one trunk to another trunk and is an intermediate switch or connection between an originating telephone call location and the final destination of the call. An end office switch is connected to a telephone subscriber and allows the call to be originated or terminated. If ICG's switch is an end office switch, then it is handling calls that originate from or terminate to customers served by that local switch, and thus ICG's switch is not providing a tandem function. Witness Varner contended that ICG is seeking to be compensated for the cost of equipment it does not own and for functionality it does not provide.

ICG emphasized that its switch serves a geographic area comparable to that of BellSouth's tandem. ICG witness Starkey testified that "ICG, like many new entrant competing local exchange companies (CLECs), generally deploys its individual switches to cover a large geographic area served by a common transport network. The advent of fiber optic technologies and multi-function switching platforms have, in many cases, allowed carriers like ICG to serve an entire statewide or local access and transport area (LATA)-wide customer base from a single switch platform. Likewise, the ability to aggregate unbundled loops from collocations within a number of ILEC central offices while transporting that traffic to a single location allows these carriers to originate, switch and terminate traffic between callers located many miles apart with a single switch." Witness Starkey further stated that ". . . ICG uses its single switching platform not only to transfer calls between multiple ILEC central offices and the customers that are served by those central offices, but also to transfer calls between the ICG and ILEC network. In this way, the ICG switch provides services to customers in a geographic area at least as large as that serviced by the ILEC tandem."

ICG further contended that its switch performs many of the same functions that the ILEC's tandem performs. ICG witness Starkey testified that ". . . in the case of ICG, its switch also performs many of the same functions that the ILEC tandem performs, further indicating that tandem termination rates are appropriately paid for its use.". In addition,

witness Starkey stated that "Tandem switches (what are commonly called Class 4 switches in the traditional AT&T hierarchy), generally aggregate toll traffic from a number of central office switches (Class 5 switches) for purposes of passing that traffic to the long distance network. The tandem switch is also a traditional focal point for other purposes as well, including the aggregation and processing of operator services traffic, routing traffic that is to be transferred between the trunk groups of two separate carriers and measuring and recording toll traffic detail for billing. While ILECs have traditionally employed two separate switches to accomplish these Class 4 and Class 5 functions, ICG's Lucent 5ESS platform performs all of these functions in addition to a number of others within the same switch."

Rule 51.711(a)(3) of the FCC's Interconnection Order states "Where the switch of a carrier other than an incumbent LEC serves a geographic area comparable to the area served by the incumbent LEC's tandem switch, the appropriate rate for the carrier other than an incumbent LEC is the incumbent LEC's tandem interconnection rate."

The Commission is of the opinion that ICG has presented sufficient evidence to show that its switch serves a geographic area comparable to that of BellSouth's tandem switch. The Commission is also of the opinion that ICG has shown that there is comparable functionality between the ILEC's tandem and ICG's switch even though the FCC Interconnection Order requires only that a CLP's switch serve a geographic area comparable to that served by an ILEC's tandem to qualify for the tandem termination rates.

CONCLUSIONS

The Commission concludes that ICG's Charlotte switch serves an area comparable to that served by BellSouth's Charlotte tandem switch and ICG's switch also provides the same functionality as that provided by BellSouth's tandem switch. For reciprocal compensation purposes, the Commission finds that ICG is entitled to compensation at the tandem interconnection rate (in addition to the other appropriate rates) where its switch serves a geographic area comparable to that served by BellSouth's tandem switch.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 3

MATRIX ISSUE NO. 11: Should BellSouth be required to commit to provisioning the requisite network buildout and necessary support when ICG agrees to enter into a binding forecast of its traffic requirements in a specified period?

POSITIONS OF PARTIES

ICG: Yes. ICG stated that it relies on BellSouth's end office trunks to deliver traffic to ICG's switch and that those trunks are the responsibility of BellSouth to provision and administer. ICG maintained that it provides BellSouth with quarterly traffic forecasts to

assist BellSouth in planning for facilities to handle traffic between the BellSouth and the ICG networks. ICG stated that BellSouth is under no obligation to add more end office trunks if ICG's forecast indicates that additional trunking is necessary. ICG stated that it wants the option of requiring BellSouth to provision additional end office trunks as dictated by ICG's forecast. ICG maintained that in exchange, it would agree to pay BellSouth for any trunks which are not fully utilized as indicated by the forecast. ICG argued that under its proposal, BellSouth would not assume any risk that additional trunks are underutilized and that ICG will assume all of this risk. ICG assured that if the Commission ordered this provision, ICG expects to use it sparingly. In fact, in its Brief, ICG stated that it anticipates only using the binding forecast mechanism where it is (1) confident of substantial additional growth and (2) concerned that, absent a binding commitment from BellSouth to timely provision the necessary trunks, there would be an unacceptable risk of blockage of incoming calls to ICG's customers because of BellSouth's inability to handle the traffic flow. ICG also mentioned that BellSouth's Revised SGAT filed in September 1998 contains a binding forecast provision which largely mirrors ICG's proposal.

ICG argued that the Commission has the jurisdiction to require a binding forecast provision as proposed by ICG. ICG stated that Section 251(c)(2) of the Act states that ILECs have the obligation to provide interconnection: (1) for the transport and routing of telephone exchange traffic; (2) at any technically feasible point; (3) at least equal in quality to that provided by the ILEC to itself or an affiliate; and (4) on rates, terms, and conditions that are just, reasonable, and nondiscriminatory. ICG maintained that its proposal is clearly for the transport and routing of telephone exchange traffic; and that technical feasibility and equality of interconnection are not at issue. ICG stated that the only issue raised by its proposal is whether the rates, terms, and conditions are just, reasonable, and nondiscriminatory; ICG maintained that its proposal meets this test. ICG also noted that the BellSouth/KMC Telecom, Inc. (KMC) interconnection agreement filed with the Commission on March 21, 1997 contains a provision substantially identical to the one in the SGAT. ICG stated that as was provided in both the SGAT and KMC binding forecast provisions, the specific terms and conditions of the binding forecast should be negotiated between the parties. ICG recommended that the Commission conclude that it does have jurisdiction under Sections 251 and 252 of the Act to require BellSouth to include a binding forecast provision in the parties' interconnection agreement. Further, ICG recommended that the Commission conclude that BellSouth should be required to include in its interconnection agreement with ICG a binding forecast provision like the ones included in BellSouth's Revised SGAT and in the BellSouth/KMC interconnection agreement. ICG recommended that the provision should require the parties to negotiate in good faith the specific terms and conditions of the binding forecast.

BELLSOUTH: No. BellSouth stated that although it has been analyzing such an offering, it is not required by the Act to commit to a binding forecast with any CLP, including ICG. BellSouth argued that the Commission should not impose a burden on BellSouth that is not required by the Act. BellSouth maintained that while the specifics of such an

arrangement have not been finalized, BellSouth is agreeable to continue to negotiate with ICG on this issue. Additionally, BellSouth stated that the standard for arbitration imposed on the Commission is set forth in Section 252(c) of the Act. Specifically, Section 252(c)(1) states that the Commission shall "ensure that such resolution and conditions meet the requirements of section 251, including the regulations prescribed by the [FCC] pursuant to section 251." BellSouth stated that on cross-examination, ICG witness Phillip Jenkins agreed that BellSouth is not required by Sections 251 or 252 of the Act to provide binding forecasts. Therefore, BellSouth maintained, the Commission cannot impose such an obligation on BellSouth and that this topic is not appropriate for arbitration.

PUBLIC STAFF: No. The Public Staff stated that while such a clause would not be an inappropriate term in an interconnection agreement, the Public Staff does not believe that the Act mandates a requirement of this sort. The Public Staff maintained that the issue is not appropriate for arbitration and that the issue of whether to provide a guarantee of the sort requested by ICG, and what to charge for such a guarantee, are essentially business decisions and matters for negotiation between the parties. Therefore, the Public Staff recommended that the Commission decline to require commitment to a binding forecast and that the Commission encourage the parties to continue negotiations toward this goal.

DISCUSSION

Testimony on this issue was presented by ICG witness Jenkins and BellSouth witness Varner.

ICG stated in its Brief that it needs some way of ensuring that BellSouth will provision adequate trunking facilities to carry calls from BellSouth's customers to ICG's growing customer base. Further, ICG argued that this matter is of critical importance because if BellSouth's customers are unable to reach ICG's customers as a result of a blockage on BellSouth's network due to a lack of capacity, it is ICG that will be seen as the cause of the problem. ICG maintained that its binding forecast proposal would obligate BellSouth to, in a timely manner, provision the trunking necessary to carry a forecasted level of traffic and that this would ensure that there is adequate capacity in BellSouth's network to meet demand. ICG stated that this in turn would ensure that there are no blockages; if there were blockages this would frustrate not only ICG's customers who would be unable to receive calls from BellSouth customers but also BellSouth's customers who would be unable to place the calls.

ICG witness Jenkins stated in the summary of his prefiled testimony that ICG is not asking BellSouth to take any risk. Witness Jenkins stated that ICG is willing to commit to BellSouth for a specified volume of interconnection trunks as a part of its binding forecast, whether or not ICG's traffic achieves the forecasted demand. Additionally, witness Jenkins argued that if the traffic volume falls short of the forecasts, ICG will pay BellSouth fully for the full cost of the unused trunks; in other words, ICG will take all of the risk, and BellSouth

will assume no risks. On cross-examination, witness Jenkins denied that there is anything specific in Sections 251 and 252 of the Act requiring BellSouth to provide binding forecasts to ICG.

The Commission declines to decide at this time whether the Act mandates a binding forecast requirement of the sort requested by ICG. However, the Commission does note that ICG's request for this type of requirement does not appear inappropriate. In fact, the Commission notes that a similar provision can be found in BellSouth's Revised SGAT and the BellSouth/KMC interconnection agreement. Additionally, the Commission notes that BellSouth has specifically stated that it is agreeable to continue to negotiate on this term. Although the Commission will not require BellSouth to commit to provisioning the requisite network buildout and necessary support, the Commission strongly encourages BellSouth and ICG to continue to negotiate on this issue.

CONCLUSIONS

The Commission declines to decide at this time whether BellSouth should be required to commit to provisioning the requisite network buildout and necessary support. The Commission strongly encourages BellSouth and ICG to continue to negotiate on this issue. Further, the Commission notes that since a similar provision is found in BellSouth's Revised SGAT and at least one interconnection agreement, it would appear reasonable for a similar provision to be voluntarily included in the BellSouth/ICG interconnection agreement.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 4

MATRIX ISSUE NO. 5: Should BellSouth be subject to liquidated damages for failing to meet the time intervals for provisioning UNEs?

MATRIX ISSUE NO. 19: Should BellSouth be required to pay liquidated damages when BellSouth fails to install, provision, or maintain any service in accordance with the due dates set forth in an interconnection agreement between the parties?

MATRIX ISSUE NO. 20: Should BellSouth continue to be responsible for any cumulative failure in a one-month period to install, provision, or maintain any service in accordance with the due dates specified in the interconnection agreement with ICG?

MATRIX ISSUE NO. 21: Should BellSouth be required to pay liquidated damages when BellSouth's service fails to meet the requirements imposed by the interconnection agreement with ICG (or the service is interrupted causing loss of continuity or functionality)?

MATRIX ISSUE NO. 22: Should BellSouth continue to be responsible when the duration of service's failure exceeds certain benchmarks?

MATRIX ISSUE NO. 23: Should BellSouth be required to pay liquidated damages when BellSouth's service fails to meet the grade of service requirements imposed by the interconnection agreement with ICG?

MATRIX ISSUE NO. 24: Should BellSouth continue to be responsible when the duration of service's failure to meet the grade of service requirements exceeds certain benchmarks?

MATRIX ISSUE NO. 25: Should BellSouth be required to pay liquidated damages when BellSouth fails to provide any data in accordance with the specifications of the interconnection agreement with ICG?

MATRIX ISSUE NO. 26: Should BellSouth continue to be responsible when the duration of its failure to provide the requisite data exceeds certain benchmarks?

POSITIONS OF PARTIES

ICG: Yes. ICG maintained that the Commission has the jurisdiction to adopt performance measurements and enforcement mechanisms. ICG stated that Section 251 of the Act and the FCC's implementing rules require that an ILEC provide interconnection and access to UNEs and resale at parity to that which it provides itself. Additionally, ICG maintained that if the Commission were to decide to adopt such measurements and enforcement mechanisms, it would have the legal authority to do so since G.S. 62-30 and G.S. 62-32 provide the Commission with broad powers to supervise and control public utilities. Further, ICG stated that G.S. 62-110(f1) provides the Commission with statutory authority to "provide reasonable interconnection of facilities" between carriers; "to provide reasonable unbundling of essential facilities"; and "to carry out the provisions of this subsection in a manner consistent with the public interest . . ." ICG further stated that the FCC has encouraged state commissions to adopt performance measurements and that the Commission's decision in the AT&T Communications of the Southern States, Inc. (AT&T)/BellSouth arbitration not to arbitrate this issue at that time does not cut off the Commission's jurisdiction to consider the issue now.

ICG also argued that performance measurements and enforcement mechanisms are necessary to ensure that interconnection, access to UNEs, and resale are provided at parity with what BellSouth provides itself or its affiliates. ICG maintained that as a facilities-based carrier, it is dependent upon BellSouth for essential network elements. ICG maintained that because of the industry-wide implications of the performance measurements and damages issues, they should be considered in a generic proceeding with the results of the dockets at the California and Texas Public Service Commissions to

be the starting point for such a proceeding. ICG concluded that the posture of this issue does not require any Commission action in this docket and that ICG has effectively withdrawn this issue from the arbitration. ICG recommended that the Commission issue an Order in the local competition docket (P-100, Sub 133d) soliciting comments on initiation of a generic proceeding to consider performance measurements and enforcement mechanisms.

BELLSOUTH: No. BellSouth stated that the issues of performance measurements and liquidated damages are not appropriate for arbitration. BellSouth stated that the Commission lacks the statutory authority to award or order liquidated damages. BellSouth maintained that state law and Commission procedures are available, and perfectly adequate, to address any breach of contract situation should it arise. BellSouth concluded that the issue of liquidated damages was previously addressed by the Commission in the AT&T/BellSouth arbitration (Docket No. P-140, Sub 50) and that in that case, the Commission concluded that it was not appropriate for the Commission to resolve the issue and that the parties should negotiate reasonable terms and conditions. BellSouth argued that in the instant proceeding, the Commission should find that it lacks the statutory authority to impose liquidated damages on a party to an interconnection agreement for the reasons generally discussed by BellSouth in its Brief.

Concerning performance measurements, BellSouth maintained that this is an industry-wide issue and should not be addressed by the Commission in a two-party arbitration proceeding. BellSouth argued that it is more appropriate to address the issue of performance measurements in the context of BellSouth's Section 271 proceeding, Docket No. P-55, Sub 1022. BellSouth recommended that the Commission agree with BellSouth that this issue is inappropriate in a two-party arbitration proceeding, and to the extent the Commission desires to address performance measurements in the future, it should do so in a more generic context so as to involve the entire industry.

PUBLIC STAFF: The Public Staff recommended that the Commission state that it will take this matter under consideration, but will not rule at this time.

DISCUSSION

Testimony on this issue was presented by ICG witness Notsund and BellSouth witness Varner.

ICG has conceded that this issue does not require any Commission action in this docket and that it has effectively withdrawn this issue from the arbitration. ICG stated in its Brief that the issue is not appropriate for bilateral resolution because it is one of industry-wide relevance and importance. The issue that does remain to be addressed is whether the Commission should establish a generic proceeding to consider performance measurements and enforcement mechanisms. ICG witness Notsund confirmed when

asked by Commissioner Ervin that the only relief ICG is requesting that the Commission provide in this proceeding with respect to performance measurements is to convene a generic proceeding.

ICG recommended that the Commission issue an Order in the local competition docket (Docket No. P-100, Sub 133d) soliciting comments on the initiation of a generic proceeding to consider performance measurements and enforcement mechanisms. ICG stated in its Brief that the Commission first addressed the issue of performance standards in the 1997 BellSouth/AT&T arbitration. ICG maintained that by the terms of the Commission's Arbitration Order, the Commission did not foreclose further consideration of performance measurements and reserved the right to revisit the issue. ICG argued that a great deal of experience has been gained by the Commission and the CLP industry since the BellSouth/AT&T Arbitration Order was issued. ICG stated that in the two years since the release of that Arbitration Order, the Commission and the industry have gained the expertise necessary to allow the Commission to revisit the question of performance standards. ICG maintained that the experience of ICG and other CLPs has shown that performance standards are badly needed and are no longer premature. ICG further stated in its Brief that when BellSouth's performance to ICG falls short, ICG's performance to its end users often also suffers. ICG argued that, when BellSouth fails to perform installations in a timely manner, it is the end user who is left waiting. Further, ICG stated, when BellSouth fails to perform a coordinated cutover, it is the end user who experiences a service disruption. ICG maintained that, when any of these things happen, the customer has no way of knowing that it is BellSouth's fault; all the customer knows is that it is ICG's customer and in the customer's eyes, ICG is responsible. ICG asserted that ICG and other CLPs need the performance measurements stick to compel BellSouth to perform its obligations in a satisfactory manner. Finally, ICG stated in its Brief that even BellSouth has acknowledged the need for performance standards and enforcement mechanisms. ICG maintained that in a filing with the FCC made in conjunction with its efforts to win Section 271 approval, BellSouth has proposed a set of performance measurements to assure nondiscriminatory access to UNEs. ICG stated that the BellSouth proposal includes payments which BellSouth would make to CLPs for failure to meet performance benchmarks.

BellSouth recommended that to the extent that the Commission desires to address performance measurements, it should do so in a more generic context so as to involve the entire industry. BellSouth further stated that it is more appropriate to address performance measurements in the context of BellSouth's Section 271 proceeding, Docket No. P-55, Sub 1022.

The Public Staff recommended that the Commission take this matter under consideration but not rule on it at this time.

The Commission concludes that it is appropriate at this time for the Commission to institute a generic proceeding to consider performance measurements and enforcement mechanisms. The Commission notes that state regulatory commissions in several BellSouth states have addressed performance measurements. Therefore, the Commission will establish a newly created generic docket devoted to performance measurements and enforcement mechanisms, Docket No. P-100, Sub 133k. The Commission will issue an Order in Docket No. P-100, Sub 133K creating the generic docket and requesting that the industry, the Public Staff, the Attorney General, and any other interested parties form a Task Force.

Finally, the Commission notes that in May 1999, AT&T filed a Petition for the Establishment of a Third-Party Testing Program of Operations Support Systems (OSS) with the Commission (Docket No. P-100, Sub 133l). In conjunction with opening a generic docket to address performance measurements, the Commission will also issue an Order in Docket No. P-100, Sub 133i stating that the Commission is investigating performance measurements in a generic docket as a first step, but will keep the third-party testing docket open for future consideration.

CONCLUSIONS

The Commission concludes that this issue has been, in essence, withdrawn from the arbitration and accordingly is not in need of resolution in this docket. Further, the Commission will create a new docket, Docket No. P-100, Sub 133k, and issue an Order in that docket establishing the generic docket and requesting that the industry, the Public Staff, the Attorney General, and any other interested parties form a Task Force to attempt to agree on all potential issues concerning performance measurements and enforcement mechanisms. Further, the Commission will issue an Order in Docket No. P-100, Sub 133l (AT&T's Petition for Third-Party Testing) stating that the Commission is investigating performance measurements in a generic docket as a first step, but will keep the third-party testing docket open for future consideration.

IT IS, THEREFORE, ORDERED as follows:

1. That the parties shall, as an interim inter-carrier compensation mechanism, pay reciprocal compensation for dial-up calls to ISPs at the rate the parties have agreed upon for reciprocal compensation for local traffic and as finally determined by this Order, subject to true-up at such time as the Commission has ruled pursuant to future FCC consideration of this matter.

2. That ICG's Charlotte switch serves an area comparable to that served by BellSouth's Charlotte tandem switch and ICG's switch also provides the same functionality as that provided by BellSouth's tandem switch. For reciprocal compensation purposes, ICG is entitled to compensation at the tandem interconnection rate (in addition to the other

appropriate rates) where its switch serves a geographic area comparable to that served by BellSouth's tandem switch.

3. That the Commission declines to decide at this time whether BellSouth should be required to commit to provisioning the requisite network buildout and necessary support. BellSouth and ICG are encouraged to continue to negotiate on this issue.

4. That the issue of performance measurements and liquidated damages has been, in essence, withdrawn from the arbitration and accordingly is not in need of resolution in this docket. Further, the Commission will create a new docket, Docket No. P-100, Sub 133K, and issue an Order in that docket establishing the generic docket and requesting that the industry, the Public Staff, the Attorney General, and any other interested parties form a Task Force to attempt to agree on all potential issues concerning performance measurements and enforcement mechanisms. Further, the Commission will issue an Order in Docket No. P-100, Sub 133i (AT&T's Petition for Third-Party Testing) stating that the Commission is investigating performance measurements in a generic docket as a first step, but will keep the third-party testing docket open for future consideration.

5. That BellSouth and ICG shall prepare and file a Composite Agreement in conformity with the conclusions of this Order not later than 45 days after the date of issuance of this Order. Such Composite Agreement shall be in the form specified in paragraph 4 of Appendix A in the Commission's August 19, 1996, Order in Docket Nos. P-140, Sub 50, and P-100, Sub 133, concerning arbitration procedure (Arbitration Procedure Order).

6. That, not later than 30 days from the date of issuance of this Order, a party to the arbitration may file objections to this Order consistent with paragraph 3 of the Arbitration Procedure Order.

7. That, not later than 30 days from the date of issuance of this Order, any interested person not a party to this proceeding may file comments concerning this Order consistent with paragraphs 5 and 6, as applicable, of the Arbitration Procedure Order.

8. That, with respect to objections or comments filed pursuant to decretal paragraphs 6 or 7 above, the party or interested person shall provide with its objections or comments an executive summary of no greater than one and one-half pages single-spaced or three pages double-spaced containing a clear and concise statement of all material objections or comments. The Commission will not consider the objections or comments of a party or person who has not submitted such executive summary or whose executive summary is not in substantial compliance with the requirements above.

9. That parties or interested persons submitting Composite Agreements, objections or comments shall also file those Composite Agreements, objections or comments, including the executive summary required in decretal paragraph 8 above, on an MS-DOS formatted 3.5-inch computer diskette containing noncompressed files created or saved in WordPerfect format.

ISSUED BY ORDER OF THE COMMISSION.

This the 4th day of November, 1999.

NORTH CAROLINA UTILITIES COMMISSION

Geneva S. Thigpen

Geneva S. Thigpen, Chief Clerk

bc110399.02

GLOSSARY OF ACRONYMS
Docket No. P-582, Sub 6

ACL	Adjusted Call Length
Act	Telecommunications Act of 1996
AT&T	AT&T Communications of the Southern States, Inc.
BellSouth	BellSouth Telecommunications, Inc.
CLP	Competing Local Provider
CLEC	Competing Local Exchange Company (Carrier)
Commission	North Carolina Utilities Commission
FCC	Federal Communications Commission
ICG	ICG Telecom Group, Inc.
ILEC	Incumbent Local Exchange Company (Carrier)
ISP	Internet Service Provider
ITC^DeltaCom	ITC^DeltaCom Communications, Inc.
KMC	KMC Telecom, Inc.
LATA	Local Access and Transport Area
LEC	Local Exchange Company (Carrier)
LERG	Local Exchange Routing Guide
MOU	Minute of Use
OSS	Operations Support Systems
Public Staff	Public Staff-North Carolina Utilities Commission
SGAT	Statement of Generally Available Terms
TA96	Telecommunications Act of 1996
TELRIC	Total Element Long-Run Incremental Cost
UNE	Unbundled Network Element

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Docket No. 98-10015
In Re Petition of PAC-WEST TELECOMM, INC. for arbitration pursuant to Section 252 of the Telecommunications Act of 1996 to establish an Interconnection Agreement with Nevada Bell.

Docket No. 99-1007
In Re Petition of ADVANCED TELCOM GROUP, INC. for arbitration of an Interconnection Agreement with Nevada Bell pursuant to Section 252(b) of the Telecommunications Act of 1996.

At a general session of the Public Utilities Commission of Nevada, held at its offices on May 20, 1999.

PRESENT:
Chairman Judy M. Sheldrew
Commissioner Donald L. Soderberg
Commissioner Michael A. Pitlock
Commission Secretary Jeanne Reynolds

ORDER

The Public Utilities Commission of Nevada ("Commission") makes the following findings of fact and conclusions of law:

1. On April 12, 1999, the Commission issued a Revised Arbitration Decision in the above-referenced dockets. This Revised Arbitration Decision was issued in response to petitions for arbitration filed by Pac-West Telecomm, Inc. ("Pac-West") and Advanced Telcom Group, Inc. ("ATG") concerning interconnection agreements with Nevada Bell.

2. The only issue before the Commission for arbitration in both instances was whether a party receiving traffic from the other for termination to an Internet Service Provider ("ISP") is entitled to receive reciprocal compensation from the other pursuant to 47 U.S.C. §251(b)(5).

3. In its Revised Arbitration Decision, the Commission determined that reciprocal compensation should be paid by Nevada Bell to Pac-West or ATG for traffic originated by a Nevada Bell customer and terminated to any customer, including an ISP, obtaining local access from Pac-West or ATG when those customers are located within the same Nevada Bell local calling area. Similarly, reciprocal compensation should be paid by Pac-West or ATG to Nevada Bell for traffic originated by a Pac-West or ATG customer and terminated to any customer, including an ISP, obtaining local access from Nevada Bell when those customers are located within the same Nevada Bell local calling area. In this Revised Arbitration Decision, the Commission also found that a local call is based on the physical location of the originating and terminating parties where there are no toll or other costs beyond the local exchange service rates.

4. On April 26, 1999, Pac-West filed a document in these dockets entitled "Petition for Declaratory Order

or Advisory Opinion." In this petition, Pac-West seeks confirmation that a local call includes a call to or from foreign exchange customers where the carrier serving such customers maintains a direct point of interconnection within the foreign exchange and is responsible for transporting calls to and from the point of interconnection and the foreign exchange customer so that, where a call is originated by a Nevada Bell end user and is delivered by Nevada Bell to Pac-West within that end user's local calling area, the call would be deemed a local call so long as Pac-West bears the entire responsibility for transporting the call outside of the originating end user's local calling area.

5. In its answer to Pac-West's petition filed May 10, 1999, Staff states that the issue raised by Pac-West's petition is not one which was fully developed during the hearing held in February 1999 or actually ruled upon by the Commission in its Revised Arbitration Decision. Staff describes this issue as a narrow one which was not necessarily contained within Pac-West's initial petition for arbitration. Resolution of the issue (on reciprocal compensation) does not necessarily require resolution of the matter raised by Pac-West in its petition filed April 26, 1999. Staff recommends that the Commission properly notice and hold a hearing on the issue of whether the term "local call," as used in the Revised Arbitration Decision, includes a call to or from foreign exchange customers where the carrier serving such customers maintains a direct point of interconnection within the foreign exchange and is responsible for transporting calls to and from the point of interconnection and the foreign exchange customer. In the alternative, Staff points out that either Pac-West or Nevada Bell can file a new petition for arbitration of this issue.

6. In its answer filed May 10, 1999, Nevada Bell states that Pac-West has actually asked the Commission to reconsider and reverse a portion of its Revised Arbitration Decision. In contrast to Staff, Nevada Bell asserts that the subject of Pac-West's petition was fully explored and decided in the course of the arbitration. Nevada Bell also argues that 47 U.S.C. §252(b)(1) precludes Pac-West from requesting another arbitration. Nevada Bell argues that Pac-West could have petitioned for arbitration of other sections of the interconnection Agreement, such as the section wherein "local traffic" was defined, but did not do so. Nevada Bell also argues that 47 U.S.C. §252(b)(4)(A) requires that the Commission limit its consideration of a petition for arbitration to the issues set forth in the petition and response. The Commission's decision in its Revised Arbitration Decision with respect to the definition of a "local call" was unambiguous and does not need to be clarified. Nevada Bell asserts that Pac-West seeks, via its petition, an interpretation of the Revised Arbitration Decision which would circumvent the definition of a local call. Pac-West wants to afford its ISP customers in Las Vegas the ability to receive calls from northern Nevada that are rated local to the caller, even though the calls will cross LATA boundaries. Nevada Bell encourages the Commission to deny Pac-West's petition.

7. As a preliminary matter, the Commission must address whether it will treat the petition filed by Pac-West on April 26, 1999 as a petition for a declaratory order or advisory opinion, or as some other type of request. Although NAC 703.825 provides that "any interested person may petition the commission for a declaratory order or an advisory opinion as to the applicability of any statutory provision or any regulation or decision of the commission," such a petition should be filed as a new request which will cause a new docket to be opened, noticed to the public, and disposed of after an opportunity for comment and possibly a hearing. The Commission believes that the petition filed by Pac-West can fairly be construed as a request for clarification and therefore can be disposed of at this time in these dockets. The answers of both Staff and Nevada Bell appeared to respond to the petition as if it were in fact a request for clarification.

8. Upon consideration of Pac-West's petition and the answers filed thereto, the Commission believes the petition should be denied. Pac-West could have specifically requested arbitration of this issue at the same time it requested arbitration of the issue of reciprocal compensation, but Pac-West did not do so. The Commission is not in a position to clarify a question which was not properly before it when it was

gathering evidence and argument on the issue of reciprocal compensation set forth above.

Therefore, based on the foregoing findings of fact and conclusions of law, it is hereby ORDERED that:

1. The petition filed by Pac-West Telecomm, Inc. on April 26, 1999 is DENIED.

2. The Commission retains jurisdiction for the purpose of correcting any errors which may have occurred in the drafting or issuance of this Order.

By the Commission,
JUDY M. SHELDREW, Chairman
DONALD L. SODERBERG, Commissioner
MICHAEL A. PITLOCK, Commissioner

Attest: JEANNE REYNOLDS, Commission Secretary
Dated: 5/24/99 Carson City, Nevada

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Docket No. 98-10015
In re petition of PAC-WEST TELECOMM, INC. for arbitration pursuant to Section 252 of the Telecommunications Act of 1996 to establish an Interconnection Agreement with Nevada Bell.

Docket No. 99-1007
In re petition of ADVANCED TELCOM GROUP, INC. for arbitration of an Interconnection Agreement with Nevada Bell pursuant to Section 252(b) of the Telecommunications Act of 1996.

At a general session of the Public Utilities Commission of Nevada, held at its offices on April 8, 1999.

Present:
Chairman Judy M. Sheldrew
Commissioner Donald L. Soderberg
Commissioner Michael A. Pitlock
Commission Secretary Jeanne Reynolds

ORDER ADOPTING REVISED ARBITRATION DECISION

The Public Utilities Commission of Nevada ("Commission") makes the following findings of fact and conclusions of law:

1. On March 4, 1999, the Presiding Officer in this matter filed the Arbitration Decision with the Commission.

2. Pursuant to NAC 703.288, facsimile and hard copies of the Arbitration Decision were sent to the parties (Nevada Bell, Advanced Telcom Group, Inc. ("ATG"), Pac-West Telecomm, Inc. ("Pac-West")) in the proceeding, the Regulatory Operations Staff ("Staff") of the Commission, the Attorney General's Bureau of Consumer Protection - Utility Consumers' Advocate ("UCA"), and the entities (AT&T Communications of Nevada, Inc. ("AT&T"), GTE California Incorporated d/b/a GTE of Nevada ("GTE"), and Sprint Communications Company, L.P. and Central Telephone Company - Nevada d/b/a Sprint of Nevada ("Sprint")) who filed notices of intent to comment.

3. On March 15, 1999, comments on the Arbitration Decision were filed by ATG, Pac- West, Nevada Bell, Staff, AT&T, and GTE. On March 22, 1999, reply comments were filed by Nevada Bell, ATG, Pac-West, Staff, and AT&T.

4. Pursuant to NAC 703.288(5), the scope of the comments received must be limited to whether the Arbitration Decision:

(a) discriminates against any telecommunications carrier that is not a party to the agreement;

(b) is consistent with the public interest, convenience, and necessity; or

(c) violates other requirements of the Commission, including, but not limited to, any standards adopted by the Commission relating to the quality of telecommunication service.

Parties' Comments:

ATG:

5. ATG states that the Federal Communications Commission ("FCC") did not give states the authority to determine that no compensation would be paid for termination of ISP traffic. (Post Arbitration Comments of ATG (hereafter "ATG Comments") at 6). Both the Telecommunications Act of 1996 ("Act") and fundamental fairness require that a local exchange carrier ("LEC"), whether incumbent LEC ("ILEC") or competitive LEC ("CLEC"), be compensated when another LEC delivers traffic to their network for competition. The FCC's Declaratory Ruling[1] states that some compensation must be paid: ". . . state commissions are also free not to require the payment of reciprocal compensation for this traffic and to adopt another compensation mechanism." (Declaratory Ruling at ¶26). Thus beyond its inherent unfairness, the refusal of any compensation for the use of the CLECs' facilities constitutes an unconstitutional taking of property without just compensation. (ATG Comments at 7).

6. The refusal of reciprocal compensation will do untold damage to the development of competition in Nevada Bell's service territory and may well prevent meaningful competition from ever developing. (Id. at 8). The Internet is the most promising growth element of the telecommunications market. By not allowing reciprocal compensation for calls "terminated" to ISPs, there is a disincentive to compete for their business. (Id. at 9).

7. ATG believes that the Arbitration Decision is unclear in that it fails to address compensation for calls terminated on the network of Nevada Bell. (Id. at 11).

8. Further, the Arbitration Decision incorrectly concludes that the CLECs are gaming reciprocal compensation as the only reason to enter the market. The evidence of the record shows that the amount of compensation paid to CLECs under reciprocal compensation is not the gigantic amounts claimed by Nevada Bell to be a windfall. (Id. at 12). No where in the record did ATG indicate that its sole business would be service to ISPs. Instead, ATG is a full service telecommunications carrier.

9. In addition, ATG states that if the imbalance in the ratio of originating calls versus terminating calls is due to the success of CLECs' in gaining ISP customers, Nevada Bell should be motivated to try to compete for those customers, not be permitted to get a free ride on the CLECs facilities. (Id.). Furthermore, ATG is not planning to provide services primarily or solely to ISPs. There is simply no basis in the record to apply data specific to one company (referencing Pac-West's 1:69 and 1:683 ratios; see Arbitration Decision at ¶¶36, 75) to the operations of an unrelated, separate company with a very different business plan, method of operation, and customer base. (ATG Comments at 13).

10. ATG states that the burden is on Nevada Bell to show that some exception to reciprocal compensation should apply and how it would work. (Id. at 14). The rationale for this assertion is that the Telecommunications Act of 1996 expressly states that reciprocal compensation is the standard that ILECs must employ. (Id. citing 47 U.S.C. §251(b)(5)).

11. Finally, ATG emphasizes "the strong federal interest in ensuring that regulation does nothing to impede the growth of the Internet--which has flourished to date under [the FCC's] 'hands off' regulatory approach--or the development of competition." (Declaratory Ruling at ¶6). As a result, ATG disagrees

with the Arbitration Decision in that it characterizes Internet service as not included in the telecommunications services for which competition is encouraged under the Act.

Pac-West:

12. Pac-West states that ISP call termination service is a fully appropriate network offering that will provide significant value to Nevada Bell and for which Pac-West is rightfully entitled to compensation. (Comments of Pac-West (hereafter "Pac-West Comments) at 5). Requiring Nevada Bell to compensate Pac-West for performing call termination functions is simply fair business. The fact that Pac-West is focusing on the provision of call termination services at this point is of no consequence and simply should not enter into the Commission's equation for a just and reasonable outcome of this proceeding. (Id. at 7).

13. Furthermore, the suggestion in the Arbitration Decision that the entitlement to reciprocal compensation should be limited to those carriers that aspire to provide two-way, plain old telephone service ("POTS") mirroring that offered by ILECs is out of step with reality. (Id. at 8).

14. Pac-West states that according to the FCC's Declaratory Ruling, if a state commission chooses to exclude ISP traffic from reciprocal compensation provisions 47 U.S.C. §251(b)(5), the FCC explicitly conditioned such authority on the state commission's adoption of another compensation mechanism. (Id. at 12 citing Declaratory Ruling at ¶26). Without adoption of a substitute mechanism for fairly compensating Pac- West for its provision of call termination services, the Arbitration Decision is unlawful. The Commission must require each party to compensate the other for terminating such traffic based on the agreed-upon prices for the terminating end office unbundled network element.

15. Pac-West believes that the proposal to classify calls based on the calling and called parties' locations should be rejected and, instead, should adopt the rate-center-to-rate-center calling convention. This convention is consistent with actual practice in the industry and is the only realistic, nondiscriminatory, and competitively-neutral means of classifying calls. (Pac-West Comments at 18).

16. Given the exemption of ISPs from access charges, neither Pac-West nor other carriers, including ILECs, are able to recover from ISPs the costs of terminating calls. The Arbitration Decision leaves Pac-West in the impossible position of being unable to charge ISPs for call termination and being unable to recover its costs from Nevada Bell. (Reply Comments of Pac-West at 1-2).

17. To interpret the tariffs and agreements as classifying calls based on end users' actual physical locations is nonsensical. Such a rating scheme simply would not be workable. (Id. at 4). It would require Pac-West and its ISP customers to install completely unnecessary facilities, which they are highly unlikely to do simply to serve small numbers of customers in remote areas. (Id. at 4-5).

Nevada Bell:

18. Nevada Bell agrees with the Arbitration Decision. The definition of local calling at Paragraph 64 of the Arbitration Decision is the accepted custom and practice of the industry and should be affirmed by the Commission. [Nevada Bell's Comments on the Arbitration Decision of Commissioner Donald Soderberg (hereafter "Nevada Bell Comments") at 4).

19. Nevada Bell stated that the FCC determined that ISP traffic is jurisdictionally interstate in nature.

> We conclude in this Declaratory Ruling, however, that ISP-bound traffic is non-local interstate traffic. Thus, the reciprocal compensation requirements of section 251(b)(5) of the

> Act and Section 51, Subpart H (Reciprocal Compensation for Transport and Termination of Local Telecommunications Traffic) of the [FCC's] rules do not govern inter-carrier compensation for this traffic.

Declaratory Ruling at ¶26 n. 87.

20. Nevada Bell agreed with the Arbitration Decision at Paragraphs 75 and 76 that the huge disparity for incoming to outgoing calls as well as originating minutes to terminating minutes indicates that Pac-West and ATG are establishing CLECs to reap the windfall of potential reciprocal compensation payments. (Nevada Bell Comments at 9).

21. The effect of the Arbitration Decision, if approved,does not mean that compensation will never be paid for the termination of ISP traffic. Instead, the proposed interconnection agreement already provides for compensation for the exchange of interstate switched access service. The carriers jointly providing access to the interstate traffic from the ISP will establish meet point billing arrangements, just as though the ISP were an interexchange carrier. (Nevada Bell's Reply to the Comments of the Other Parties Regarding the Arbitration Decision of Commissioner Donald Soderberg (hereafter "Nevada Bell Reply Comments") at 5 citing Interconnection Agreement §5.6). Under meet point billing arrangements each carrier would bill the interexchange carrier or ISP access charges. However, the FCC has explicitly exempted ISPs from the payment of access charges. As a result, the carriers jointly providing access to the ISPs must bear their own costs without the recovery of access charges. (Nevada Bells Reply Comments at 5). Therefore, Nevada Bell will continue to bear all the costs of originating ISP traffic to ATG and Pac-West and will offset those costs with the revenue it receives from its end users.

Staff:

22. Staff does not believe that the FCC's conclusion that communications to an ISP do not terminate at the ISP's local server, but continue to the ultimate destination or destinations, specifically at an Internet website that is often located in another state (see Declaratory Ruling at ¶12) alters the fact that ISP-bound traffic is treated as local for rate-making purposes. ISPs are no different than any other local business customer in Nevada, and reciprocal compensation is an important component of the local rate structure. To deny reciprocal compensation for traffic bound for a local ISP would constitute discriminatory application of local rates by the Commission. (Comments on Proposed Order Regulatory Operations Staff (hereafter "Staff Comments") at 3).

23. Staff reiterates the FCC's assertion that nothing in the Declaratory Ruling precludes state commissions from determining that reciprocal compensation is an appropriate interim inter-carrier compensation rule. Indeed, the FCC went so far as to make the observation that the FCC's policy of treating ISP-bound traffic as local for purposes of interstate access charges would, if applied in the separate context of reciprocal compensation, suggest that such compensation is due for that traffic. (Id. citing Declaratory Ruling at ¶25).

24. Staff states that the Arbitration Decision does not appear to result in any direct discrimination against another telecommunications carrier. (Staff Comments at 3).

25. Staff believes that no party provided a plausible way to distinguish between traffic bound for an ISP and traffic bound for a non-ISP residential or business customer. As a result, Staff has both a policy and legal concern about the application of call screening mechanisms by Nevada Bell. Staff states that such call screening could violate Nevada's laws regarding interception of wire communications (wiretapping laws) promulgated at NRS 179.410-515, NRS 200.610-690, and NRS 704.285. (Id. at 4).

26. Since the FCC has not adopted a special rate structure for ISPs but, rather, has deferred access pricing to the local rate structure, Staff believes that all elements of the local business customer rate structure should apply to ISP traffic in a nondiscriminatory manner. Application of some local pricing elements, but not other elements, creates a void for local ISP access whereby ISPs are treated as local business line customers when served by Nevada Bell but not as local business line traffic when served by a CLEC. (Id. at 5).

27. Staff states that the Commission approved the interconnection agreement between Pac-West and Sprint of Nevada which included reciprocal compensation as do other interconnection agreements approved statewide by the Commission. (Id.).

28. Staff states that no showing was presented that indicated that a differential in the incremental costs of terminating a call are less than the reciprocal compensation rate. Even if such a showing were made, however, that should not lead to a policy conclusion that reciprocal compensation should be denied, but rather, that the rate in question should be reduced to a level consistent with incremental cost as prescribed by 47 U.S.C. §252(d)(2)(A). (Id. at 6-7).

29. Finally, the information on the ratio of originating minutes of use to terminating minutes of use does not support a conclusion that a subsidy flow will exist. (Id. at 7). It is analogous to an observation that Nevada Bell purchases all of its electricity from Sierra Pacific Power Company ("Sierra Pacific") but sells no electricity to Sierra Pacific. To conclude that Nevada Bell is therefore subsidizing Sierra Pacific would be erroneous without considering Sierra Pacific's costs.

30. Staff states that Paragraphs 77 and 78 of the Arbitration Decision appear to deny reciprocal compensation for any and all traffic terminated on the networks of ATG and Pac- West regardless of the type of end-use customer. (Id. at 8).

GTE:

31. GTE agrees with the Arbitration Decision. By finding that a local call should not be defined by the rate center of the NXX codes, the decision prevents ATG and Pac-West from avoiding charges for toll calls and interLATA calls as well. (GTE Comments Regarding Arbitration Decision (hereafter "GTE Comments") at 2).

32. But for the so-called "ESP exemption" in 47 C.F.R. pt. 69, CLECs would be paying access charges to ILECs for such traffic as interexchange carriers do. Instead, the costs incurred for transporting such traffic are borne by the ILECs, not the CLECs. It is a perversion of the access charge regime set forth in part 69 of the federal regulations to interpret the exemption to permit the collection of compensation, in addition to the avoidance of access charges. (Id. at 2-3).

33. The FCC refuted the two-call theory advanced by Pac-West and ATG. The FCC has consistently rejected attempts to divide communications at any intermediate points of switching or exchanges between carriers. The communications at issue here do not terminate at the ISP's local server, as ATG and Pac-West contend, but instead continue to the ultimate destination or destinations. (Id. at 3 citing FCC Declaratory Ruling at ¶¶10, 12). The Presiding Officer's decision (see Arbitration Decision at ¶68) appears to be consistent with Paragraphs 10-15 of the FCC's Declaratory Ruling.

34. The Presiding Officer's ultimate conclusion in Paragraph 79 that the "just and reasonable" standard set forth in 47 U.S.C. §252(b)(2)(A) was meant to promote competition, not the Internet is correct. CLECs

which serve primarily ISPs are not bestowing the benefits of the competition on consumers. These CLECs are merely attempting to take advantage of a loophole in the law at the expense of ILECs. (GTE Comments at 4).

AT&T:

35. AT&T states that the Presiding Officer unduly relied upon the FCC's Declaratory Ruling. It does not mandate the result reached by the Presiding Officer in the Arbitration Decision and indeed suggests that a contrary decision would be appropriate at least until the FCC concludes the rulemaking. (Id. at 2). The effect of the Arbitration Decision is that neither ILECs nor CLECs will receive any compensation for the exchange of ISP traffic. (Id. at 3). The FCC recognized that reciprocal compensation is still appropriate and that in the absence of a contrary FCC rule, state commissions have the authority and jurisdiction to order reciprocal compensation. (Id. at 2-3 citing Declaratory Ruling at ¶25).

36. In addition, AT&T states that the FCC indicated that if a state commission determined that "reciprocal compensation" is not appropriate, the state commission was still entitled to "adopt another compensation mechanism." (Reply Comments of AT&T at 2 citing FCC's Declaratory Ruling at ¶26).

Commission Discussion:

37. The Commission agrees with Staff's analysis of the Presiding Officer's Arbitration Decision. The Commission finds that the Arbitration Decision is not in the public interest, convenience and necessity. Therefore, the Commission should adopt the Revised Arbitration Decision, attached hereto as Attachment 1, that conforms with Staff's conclusions and recommendations.

THEREFORE, based on the foregoing findings of fact and conclusions of law, it is hereby ORDERED that:

1. The Revised Arbitration Decision, attached hereto as Attachment 1, is APPROVED.

2. The findings delineated in the Revised Arbitration Decision shall SUPERSEDE the Presiding Officer's Arbitration Decision filed with the Commission on March 4, 1999.

3. The Commission retains jurisdiction for the purpose of correcting any errors which may have occurred in the drafting or issuance of this Order Adopting Revised Arbitration Decision.

By the Commission,
JUDY M. SHELDREW, Chairman
DONALD L. SODERBERG, Commissioner and Presiding Officer
MICHAEL A. PITLOCK, Commissioner
Attest: JEANNE REYNOLDS, Commission Secretary
Date: 4/12/99 Carson City, Nevada

1. In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; In the Matter of Inter- Carrier Compensation for ISP-Bound Traffic, CC Docket No. 96-98, CC 99-68, FCC 99-38, Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket 99-68, rel. 2/26/99 (hereafter "Declaratory Ruling").

Attachment 1

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Docket No. 98-10015
In re petition of PAC-WEST TELECOMM, INC. for arbitration pursuant to Section 252 of the Telecommunications Act of 1996 to establish an Interconnection Agreement with Nevada Bell.

Docket No. 99-1007
In re petition of ADVANCED TELCOM GROUP, INC. for arbitration of an Interconnection Agreement with Nevada Bell pursuant to Section 252(b) of the Telecommunications Act of 1996.

REVISED ARBITRATION DECISION

The Public Utilities Commission of Nevada ("Commission") makes the following findings of fact and conclusions of law:

Procedural History:

1. On October 12, 1998, Pac-West Telecomm, Inc. ("Pac-West") filed a Petition for Arbitration to establish an Interconnection Agreement with Nevada Bell. The petition was filed pursuant to Chapters 703 and 704 of the Nevada Revised Statutes ("NRS") and the Nevada Administrative Code ("NAC"), the regulations adopted by the Commission in Docket No. 96-12001 (later promulgated at NAC 703.280 et seq.), and 47 U.S.C. §251 et seq. This matter was designated as Docket No. 98-10015. Pac-West is currently authorized to provide resold intrastate interexchange, alternative operator and competitive local exchange services within Nevada pursuant to Certificate of Public Convenience and Necessity ("CPC") 2036 Sub 3.

2. Pac West requests that the Commission arbitrate the following issue: whether a party receiving traffic from the other for termination to an Internet Service Provider ("ISP") is entitled to receive reciprocal compensation from the other pursuant to 47 U.S.C. §251(b)(5).

3. On October 22, 1998, the Commission issued a Notice of Petition for Arbitration and Notice of Prehearing Conference for Docket No. 98-10015.

4. On November 6, 1998, Nevada Bell filed its Response to the Petition.

5. By November 18, 1998, the Commission received Notices of Intent to Comment from AT&T Communications of Nevada, Inc. ("AT&T"), GTE California Incorporated, d/b/a GTE of Nevada ("GTE"), the Attorney General's Bureau of Consumer Protection - Utility Consumers' Advocate ("UCA"), Advanced Telcom Group, Inc. ("ATG"), and Sprint Communications Company L.P.

6. On November 30, 1998, the Commission held a duly noticed Prehearing Conference. Appearances were made by ATG, AT&T, GTE, Nevada Bell, Pac-West, Sprint Communications Company L.P., the Regulatory Operations Staff ("Staff") of the Commission, and the UCA. At the prehearing conference, all

parties involved agreed to waive the 9-month deadline for resolution of the unresolved issues as required in 47 U.S.C. §252(b)(4)(C). In its place, the parties proposed a procedural schedule in which the Arbitration Decision would be filed on March 4, 1999, and a final Commission decision would be issued no later than April 5, 1999. On December 10, 1998, the Commission issued a Procedural Order in Docket No. 98-10015. Also, on December 10, 1998, the Commission issued a Notice of Hearing in Docket No. 98-10015.

7. On January 8, 1999, ATG filed a Petition for Arbitration to establish an Interconnection Agreement with Nevada Bell. The petition was filed pursuant to Chapters 703 and 704 of the NRS and NAC, 47 U.S.C. §251 et seq., and, in particular, NAC 703.280 et seq. This matter was designated as Docket No. 99-1007. ATG is currently authorized to provide resold local and intrastate long distance services within Nevada pursuant to CPC 2400.

8. ATG requests that the Commission arbitrate the following issue: whether a party receiving traffic from the other for termination to an ISP is entitled to receive reciprocal compensation from the other pursuant to 47 U.S.C. §251(b)(5).

9. On January 8, 1999, ATG also filed a Motion to Consolidate Hearings on Arbitration of Common Issue pursuant to NAC 703.550 et seq. and 47 U.S.C. §252(b). On January 15, 1999, Staff filed a Joinder in the Motion. No other comments were filed. On January 19, 1999, the Commission issued an Order consolidating Docket Nos. 98-10015 and 99- 1007.

10. On January 8, 1999, prefiled direct testimony was filed by ATG and Pac-West. On January 15, 1999, prefiled direct testimony was filed by Nevada Bell. On January 22, 1999, prefiled direct testimony was filed by Staff. On January 29, 1999, prefiled rebuttal testimony was filed by ATG.

11. On January 19, 1999, the Commission issued a Notice of Petition for Arbitration; Notice of Prehearing Conference; Notice of Hearing in Docket No. 99-1007.

12. On February 3, 1999, Notices of Intent to Comment were filed in Docket No. 99-1007 by GTE and Sprint Communications Company, L.P. and Central Telephone Company - Nevada d/b/a Sprint of Nevada (collectively, "Sprint").

13. On February 10, 1999, the Commission held a prehearing conference for Docket Nos. 98-10015 and 99-1007. Appearances were made by ATG, Nevada Bell, Pac-West, and Staff.

14. On February 10, 1999, the Commission commenced a hearing in the consolidated matter of Docket Nos. 98-10015 and 99-1007. Appearances were made by ATG, Nevada Bell, Pac-West, and Staff. The hearing lasted two days which included 385 pages of transcript and 14 exhibits admitted into evidence. At the close of the hearing the Presiding Officer questioned the parties whether the final decision in this matter by the Commission could be extended to April 8, 1999. No party expressed an opposition to the change.

15. On February 18, 1999, post-hearing briefs were filed by ATG, Nevada Bell, Pac-West, Sprint, and Staff.

16. On February 26, 1999, the Federal Communications Commission ("FCC") released In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; In the Matter of Inter-Carrier Compensation for ISP-bound Traffic, CC Docket No. 96-98, CC 99-98, FCC 99-38, Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket

99-68, rel. 2/26/99 (hereafter "Declaratory Ruling"). The FCC concluded that ISP-bound traffic is jurisdictionally mixed and appears to be largely interstate. In addition, the FCC concluded that reciprocal compensation obligations should only apply to local traffic that originates and terminates within state defined local calling areas. Finally, the issue of reciprocal compensation for ISP-bound traffic was left to the discretion of state commissions in the exercise of their authority to arbitrate interconnection disputes.

Statutory Guidelines:

17. Pursuant to the Telecommunications Act of 1996 [Pub. L. 104-104, 110 Stat. 56 (codified as amended in scattered sections of Title 47, United States Code)] and, in particular, 47 U.S.C. §252(b)(2)(I), the Presiding Officer has been presented with one issue to resolve in this arbitration: **whether a party receiving traffic from the other for termination to an ISP is entitled to receive reciprocal compensation from the other pursuant to 47 U.S.C. §251(b)(5)?**

18. Pursuant to 47 U.S.C.§251(b)(5), each local exchange carrier ("LEC") has the duty to establish reciprocal compensation arrangements for the transport and termination of telecommunications.

19. Pursuant to 47 U.S.C. §251(c)(2)(D), each incumbent local exchange carrier ("ILEC") has the duty to provide for interconnection with the local exchange carrier's network on rates, terms, and conditions that are just, reasonable, and nondiscriminatory.

20. For the purposes of compliance with section 47 U.S.C. §251(b)(5) by an ILEC , the Commission shall not consider the terms and conditions for reciprocal compensation to be just and reasonable unless such terms and conditions provide for the mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier. 47 U.S.C. §252(d)(2)(A)(i).

Position of the Parties:

Pac-West and ATG:

21. Pac-West states that over the past sixteen years, the FCC has consistently yielded to state jurisdiction over switched calls to Enhanced Service Providers, including ISPs. Without exception, the provision of such services has been deemed an intrastate endeavor. (Pac-West Post-Hearing Brief at 6).

22. While Nevada Bell argues that the FCC has asserted jurisdiction over dial-up access to the Internet through an FCC memorandum decision, Nevada Bell neglected to cite the portion of the decision (Tr. at 275-276), where the FCC makes it unambiguously clear that the order did not consider or address issues regarding whether LECs were entitled to receive reciprocal compensation when they deliver to ISPs circuit-switched dial-up traffic originated by interconnecting LECs. (GTE Operating Cos., CC Docket No. 98-79, Memorandum Opinion and Order, FCC 98-292, rel. 10/30/98 at ¶2).

23. In addition, ATG states that the FCC's Part 36 Separations Rules do not support Nevada Bell's claim that the FCC requires calls made to ISPs to be assigned to the interstate jurisdiction of the FCC. (ATG Post-Hearing Brief at 13). The FCC ten percent rule applies only to private line and WATS lines; it does not apply to switched lines; and no rule in Part 36 applies the FCC's ten percent rule to the circuit-switched services which are at issue in this proceeding. (Tr. at 269-270).

24. Even if the FCC were to reverse its earlier decisions to leave regulation of circuit- switched ISP traffic to the states, this Commission is nevertheless bound by the Telecommunications Act of 1996 to

order the payment of reciprocal compensation for the completion of calls to ISPs until the FCC adopts contrary regulations. (Pac-West Post- Hearing Brief at 8).

25. Pac-West intends to locate a switch in Las Vegas and provide access to ISPs (also located in Las Vegas) via the switch in Las Vegas. Under this scenario, a Nevada Bell customer located in Reno would connect with an ISP in Las Vegas via a switch located in Las Vegas. (Tr. at 8 - 9). Reno and Las Vegas are located in different local access and transport areas (interLATA). Nevertheless, Pac-West is seeking to have reciprocal compensation apply to interLATA calls simply because the customer will access the ISP via a local number.

26. Pac-West and ATG seek to have the Commission define local calls by comparing the rate center of the NXX codes, rather than by comparing the physical location of the calling and called parties within the local calling area. (Pac-West Petition for Arbitration at 3; ATG Petition for Arbitration at 3).

27. Pac-West states that contrary to Staff's suggestion, there really is no issue of potentially adverse impacts on the local versus toll calling structure since very few toll calls would ever typically be made by consumers for the purpose of accessing ISPs. Thus, Pac- West's service would not be displacing any carrier's toll revenues. Instead, the real issue is merely whether Pac-West should be permitted to push the envelope a little bit in the extent to which local-rated ISP access is made available to consumers in outlying areas. (Pac-West Post-Hearing Brief at 15).

28. Pac-West believes that the best interests of Nevadans lie in allowing Pac-West to provide its services on a foreign exchange basis. (Id. at 15-16).

29. ATG states that even with Nevada Bell's proposal to monitor the usage of phone lines for Internet traffic (Tr. at 257-59), Nevada Bell still has not proposed a way to determine which traffic is terminating at ISPs. (ATG Post-Hearing Brief at 14). The end user requests may only request information from the ISP, and never go anywhere else, or may request information that is held in cache memory by the ISP and not need to go beyond the ISP. (Tr. at 176-77, 197-98, 229-30).

30. ATG believes that an Internet call is two calls. One is a call from the end user to the ISP, over which this Commission has jurisdiction and for which reciprocal compensation applies. The other call is an unregulated Internet data exchange called Internet Service, and is provided without Nevada regulation by entities such as America On Line and Nevada Bell Internet. (ATG Post-Hearing Brief at 16). Consequently, when a call from the public switched network reaches the first ISP modem bank, it ceases to be a telecommunications service provided by a common carrier. (Ex. 4 at 4).

31. ATG states that there is nothing in 47 U.S.C. §251 et seq. or the FCC's implementing rules which would prevent this Commission from finding that all local traffic is subject to the obligation of reciprocal compensation. There is no FCC decision in any proceeding which would limit or prohibit the Commission from making this finding. (ATG Post-Hearing Brief at 10).

32. ATG and Pac-West state that the purpose of reciprocal compensation is to compensate carriers for carrying out call termination functions. When an ILEC terminates a call on a CLEC's network, the ILEC should pay the costs of terminating the call. If reciprocal compensation is not applied to calls to ISPs, the ILEC avoids the costs of terminating the call on its own network and avoids reciprocal compensation payment to terminate its customer's call on another carrier's network. (Tr. at 32). This gives the ILEC a competitive advantage over competing carriers.

33. ATG states that fundamental fairness dictates that ILECs and CLECs should each pay the other to

terminate all local switched telecommunications traffic. (Ex. 3 at 5-6; ATG Post-Hearing Brief at 2).

34. ATG states that Nevada Bell is profiting handsomely from the growth in data traffic, and both revenues and earnings are outstripping the growth in number of access lines. (Ex. 4 at 19-20). The bottom line under any analysis is that revenue growth to Nevada Bell from Internet related sales is dwarfing any real or imagined expense from reciprocal compensation. (ATG Post-Hearing Brief at 7).

35. In addition, Nevada Bell has the same opportunity as do the CLECs to avoid paying reciprocal compensation, if it makes an effort to compete for the business of the ISPs. If Nevada Bell were to win ISP companies as customers or even retain the ones it has, then it too would receive reciprocal compensation from other carriers for ISP traffic, as it undoubtedly must if local independents' customers are dialing into ISPs in the Nevada Bell territory. (Ex. 4 at 6).

36. Pac-West stipulated that based on November 1998 data, its ratio of originating calls to terminating calls will be 1:69, while the ratio of originating minutes of use to terminating minutes of use will be 1:683. (Tr. at 51). However, ATG explains that the reason for the discrepancy in numbers between calls terminated on the CLECs' network and the ILEC's network is due to the relative size of the companies and their customer bases. (ATG Post- Hearing Brief at 2).

37. Pac-West states that Nevada Bell's reciprocal compensation payments for any local call, whether to an ISP or any other end user, should equal, dollar for dollar, the costs that Nevada Bell avoids by not having to transport and terminate the call itself. If there is, in fact, no equality between reciprocal compensation payments and avoided costs under the agreement, Nevada Bell, alone, is at fault for attempting to somehow game the system or otherwise failing to accurately state its costs. Id. at 12.

38. However, Nevada Bell has not contended that the UNE prices are faulty. Therefore, it must be concluded that the UNE prices set forth in the agreement are accurate and, as a consequence, that Nevada Bell is truly indifferent, from a long run cost perspective, as to whether it terminates local traffic or whether Pac-West terminates such traffic. (Pac-West Post-Hearing Brief at 12).

39. Strong considerations of law, public policy, and fundamental fairness to various competitive market entrants compel a finding by this Commission that all exchange of local traffic, including voice and data, should be subject to local reciprocal compensation. Fundamentally, reciprocal compensation is a competitively neutral, fair, just, and reasonable mechanism for compensating termination of calls, and no good reason exists to exclude calls terminated to ISPs. This fundamental reasoning has led commissions in some 27 other states to the same conclusions, with no state commission finding otherwise. (ATG Post-Hearing Brief at 10-11).

Nevada Bell:

40. Nevada Bell believes that ISP calls are jurisdictionally interstate in nature. Nevada Bell cites an FCC order covering GTE's offering of a DSL service which stated that the communications between an end user and an ISP is not made up of an intrastate portion and an interstate portion, but is one communication. (Nevada Bell Post-Hearing Brief at 3 citing GTE Operating Cos., CC Docket No. 98-79, Memorandum Opinion and Order, FCC 98-292, rel. 10/30/98 (hereafter "Memorandum Opinion and Order") at ¶¶1, 17).

41. Nevada Bell also states that because the FCC allowed ISP to access the public switched network via a business line at state tariff rates, the FCC asserted jurisdiction over Internet usage, making the call jurisdictionally interstate. (Tr. at 241). Since ISP calls are jurisdictionally interstate in nature, they should

be excluded from the compensation provisions of an agreement for the interconnection of local traffic. (Nevada Bell Post- Hearing Brief at 11).

42. In addition, the communication does not terminate at the ISP's modem, but continues on to the website. (Nevada Bell Post-Hearing Brief at 3 citing Memorandum Opinion and Order at ¶¶19-20; Ex. 8 at 16-17). This continuous transmission may traverse both state lines and national borders. (Nevada Bell Post-Hearing Brief at 4). Without significant administrative expense to develop a jurisdictional reporting, auditing, and verification procedure for all of the parties handling the calls, or significant investment in measuring equipment by all of the parties, the end-to-end jurisdiction of the call cannot be determined. (Id. at 13-14).

43. Therefore, where it is difficult to determine through measurements or reporting, the jurisdiction of the calls using a service, the service is considered to be "contaminated" (a service handling both interstate and intrastate calls) and may be directly assigned to interstate if the station-to-station or end-to-end interstate usage is more than ten percent of the total usage of the service. If the interstate usage is less than ten percent, the usage and costs for the service are assigned to intrastate. (Ex. 8 at 15 - 16).

44. However, if the calls, usage, and costs are intrastate, they are under the jurisdiction of the Commission. (Ex. 5 at 15).

45. Nevada Bell stated that the term "local call" denotes a call made within a geographical area, where both the originating and terminating party are located, and where there are no toll or other costs beyond the local exchange service rates. (Id. at 1-2). Nevada Bell agrees with Staff that the traditional definition of a local call should be used in this matter. (Nevada Bell Post-Hearing Brief at 16-17).

46. Nevada Bell believes that using the definition of a "local call" proposed by Pac-West and ATG, would overturn years of industry custom and practice. It would also enable Pac- West and ATG to avoid paying access charges for toll-free type service and even avoid access charges for interLATA services offered to their customers. (Id. at 16).

47. Nevada Bell stated that the FCC rejected the "two call" theory and found that ISP Internet calls do not end or terminate at the ISP but are a single, continuous, end-to-end communications that is originated by a customer, transported to an ISP who then transports that call to a site on or beyond the Internet termination. (Id. at 9).

48. Nevada Bell states that given the nature and current uses of the Internet, it is not possible to identify or separate most Internet traffic by jurisdiction because the customer does not dial 1+ or 0+, but normally dials only seven digits to reach an ISP. Many interconnected companies may be involved in handling the ISP Internet call which may be terminated anywhere in the United States or the world. (Id. at 13).

49. Nevada Bell states that the FCC has determined that reciprocal compensation only applies to local communications:

> Transport and termination of local traffic for purposes of reciprocal compensation are governed by Sections 251(b)(5) and 252(d)(2) while access charges for interstate long-distance traffic are governed by Sections 201 and 202 of the Act. The Act preserves the legal distinctions between charges for transport and termination of local traffic and interstate and intrastate charges for terminating long distance traffic.

Declaratory Ruling at ¶1033.

The FCC went on to add:

> We conclude that Sections 251(b)(5) reciprocal compensation obligations should apply only to traffic that originates and terminates within a local area as defined in the following paragraph . . . We find that reciprocal compensation provisions of Section 252(b)(5) for transport and termination of traffic do not apply to transport or termination of interstate or intrastate interexchange traffic.

Id. at ¶1034.

These holding eliminate any application of reciprocal compensation to interstate or interexchange traffic. (Nevada Bell Post-Hearing Brief at 8).

50. Nevada Bell asserts that applying reciprocal compensation to dial up calls to ISPs discourages local competition. (Tr. at 7). If reciprocal compensation is permitted, CLECs could begin to use such payments for Internet traffic to fund payments to ISPs for traffic delivered to the ISPs. CLECs could remit some of their reciprocal compensation payments to pay these ISPs for connecting to the CLECs in the first place. Further, Nevada Bell states that it "is prohibited by law from charging its end users, ISPs, or other carriers, access charges for the interstate access costs they are causing." (Nevada Bell Post-Hearing Brief at 20). Therefore, Nevada Bell would be forced to subsidize the CLECs and their interconnecting ISPs for the interstate communications originating from Nevada Bell customers. (Id. at 20).

51. The subsidy arises because Nevada Bell is forced to bear all the costs of originating these calls on its network, is not permitted to charge end users to recover all these costs, and, under Pac-West's and ATG's interpretation, is forced to pay all of the costs of terminating these calls to the ISPs. (Id. at 20).

Staff:

52. Staff believes that if a call to an ISP is an intrastate call, the Commission clearly has jurisdiction to regulate that call. (Staff Post-Hearing Brief at 4). Staff states that the intent of the end user in making a call is irrelevant when determining whether a call is jurisdictionally interstate or intrastate. A call is interstate because it crossed state boundaries while the converse is also true. Therefore, intent cannot be the basis for determining whether a call to an ISP is jurisdictionally interstate. (Id. at 4-5).

53. Any concern regarding interstate and intrastate separations is irrelevant to the determination of whether the Commission has rate-making authority over calls to ISPs. (Id. at 4). The FCC, by allowing ISPs to access the public switched network via a business line at state tariff rates, in effect granted states rate-making authority which includes the authority to determine whether reciprocal compensation should apply to calls to ISPs. (Id.).

54. Staff believes that a local call should be defined on the basis of the physical locations of the calling and called party. This is the traditional definition of local calling as currently used for rate-making purposes in Nevada. (Ex. 14 at 8).

55. While Pac-West and ATG propose including interLATA calls as local calls for reciprocal compensation purposes, Nevada Bell is currently prohibited from carrying interLATA traffic. Therefore, the Commission should not define calls which must cross interLATA boundaries as local. (Staff Post-Hearing Brief at 6).

56. Staff states that a call to an ISP is viewed as comprising two discrete elements, one being a telecommunications service by which the end user connects to the ISP modem through a local call, the second being an information service by which the ISP converts the customer's analog messages into data packets which are individually routed through its modem to host computer networks located throughout the world. (Ex. 14 at 4 citing California Public Utilities Commission, R-95-04-043 & I-95-04-044, Order, rel. 10/22/98).

57. Staff believes that when the dial up call to the ISP is a local call, reciprocal compensation should apply, as it does with all other local calls. (Staff Post-Hearing Brief at 6). The failure to apply reciprocal compensation to dial up calls to ISPs would discourage local competition. (Ex. 14 at 12). There is no technical reason to treat calls to ISPs any differently from other voice calls since both types of calls use the same telecommunications network functions. (Id. at 12).

58. The guiding principles to be employed by the Commission should be whether the ILEC and CLEC compete on an equal playing field, and whether the public interest is served. (Id. at 3). The only imbalance, if any does exist, would be due to the fact that Nevada Bell is a monopoly or dominant firm having most of the local telephone customers. (Id. at 11).

59. Staff believes Nevada Bell's primary concern seems to be that Nevada Bell would pay large amounts of money in reciprocal compensation payments if reciprocal compensation were to apply to dial up calls to ISPs. (Ex. 8 at 7-8). Yet, if Nevada Bell's negotiated reciprocal compensation rate is equal to the forward-looking cost of terminating the local call, then Nevada Bell avoids the same cost when its customers' calls are terminated on another carrier's network. (Ex. 14 at 16). Therefore, the appropriate solution to any perceived problem in overpayment by Nevada Bell would be to adjust the reciprocal compensation rates, not eliminating the application of reciprocal compensation. (Tr. at 379 - 380).

Commission Discussion:

60. The issue before the Commission is whether Pac-West and ATG are entitled, pursuant to 47 U.S.C. §251(b)(5), to receive reciprocal compensation from Nevada Bell when they receive traffic from Nevada Bell that Pac-West and ATG terminate to an ISP. In order to decide this issue, four determinations must be made: (A) Does the Commission have jurisdiction to make a decision in this matter? (B) What is a local call? (C) What is the nature of a call "terminated" to an ISP? (D) Should reciprocal compensation apply to a call "terminated" to an ISP?

A. Jurisdiction

61. As the FCC observed, state commission authority over interconnection agreements pursuant to 47 U.S.C. §252 extends to both interstate and intrastate matters. (Declaratory Ruling at ¶25 citing CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, 15544 (1996)). In the absence of a federal rule regarding the appropriate inter-carrier compensation for this traffic, the Commission has jurisdiction to determine the issue of reciprocal compensation for these interconnection agreements pursuant to the Commission's statutory obligations under the Telecommunications Act of 1996 (47 U.S.C. §252). As long as the carriers are located in the boundaries of the State of Nevada, the Commission has jurisdiction over that agreement.

62. Furthermore, if a call to an ISP is an intrastate call, the Commission has jurisdiction because the call was made and completed within the boundaries of the state of Nevada. Finally, the Commission agrees with Staff that the FCC, by allowing ISPs to access the public switched network via a business line at state tariff rates, in effect granted states rate- making authority which includes the authority to determine

whether reciprocal compensation should apply to calls to ISPs.

63. Reciprocal compensation between ILECs and CLECs is a conventional local rate structure element that applies to residential and business customer traffic pursuant to 47 U.S.C. §251(b)(5) and is the subject of state commission requirements pursuant to 47 U.S.C. §252(d)(2)(A).

B. Local Call

64. The Commission finds that a local call is based on the physical location of the originating and terminating parties where there are no toll or other costs beyond the local exchange service rates. To define a local call based on the rate center of the NXX codes as proposed by Pac-West and ATG would subvert industry custom and practice. It could allow them to avoid access charges for toll calls and interLATA calls as well.

C. Call "Terminated" to an ISP

65. For purposes of this discussion, Internet calling is a communication that begins with an end user in Nevada dialing a local telephone number in Nevada for connection to an ISP. The call passes through Nevada Bell's central office and is placed on an interconnection trunk for completion through a CLEC's switch. At the CLEC's switch, the call is then placed on another trunk and sent to an ISP's router, which may be located in another LATA. At the ISP's router, the connection remains open and the caller can communicate through the Internet with data bases in other states and countries.

66. The FCC has traditionally determined jurisdictional nature of a communication by the end points of the communication. (Declaratory Ruling at ¶10). Since the FCC has not adopted a special rate structure for ISPs but has deferred access pricing to the local rate structure, all elements of local business rate structures should apply to ISP traffic in a non- discriminatory manner.

67. The Commission finds that a call "terminated" to an ISP consists of two parts: the telecommunications service and information service. Those two parts comprise one communication.

D. Reciprocal Compensation

68. Reciprocal compensation compensates one company for allowing another company to use its facilities. It covers the cost so that the prior company does not have to duplicate construction and equipment used to complete the call.

69. Pursuant to 47 U.S.C.§251(b)(5), reciprocal compensation obligations should apply to traffic that originates and terminates within state-defined local calling areas. (Id. at ¶24 citing CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, 16013 (1996)). As required by the FCC, local access pricing for ISPs in Nevada is the local rate structure for business line customers. Reciprocal compensation is a local rate structure element.

70. From the record presented to the Commission, the parties were unable to show what portion of calls "terminated" to an ISP remain local. Nor did any party provide a plausible way to distinguish between traffic bound for an ISP and traffic bound for a non-ISP or business customer. Furthermore, no party provided a plausible way to identify and separate Internet traffic by jurisdiction. Once the traffic reaches the ISP modem, nobody knows for sure what is local or long distance after that point. (Tr. at 229-230).

71. The Commission finds that local access pricing for ISPs in Nevada is the local rate structure for

business line customers and reciprocal compensation is a local rate structure element.

72. Pac-West stipulated that based on November 1998 data, its ratio of originating calls to terminating calls will be 1:69, while the ratio of originating minutes of use to terminating minutes of use will be 1:683. (Tr. at 51). This information does not support a conclusion that a subsidy flow will exist. A subsidy determination cannot be based on the ratio of sales and can only be determined by consideration of the prices and costs of the services purchased. No evidence was presented to substantiate a subsidy claim nor was a request for arbitration on a just and reasonable reciprocal compensation rate made. This concern is misplaced if the reciprocal compensation rate is based on the incremental costs to the CLEC for terminating a call.

73. No party identified a plausible and precise method to distinguish between traffic bound to ISPs and traffic bound to non-ISP local customers. Nevada Bell's call screening method gives rise to public interest and legal concerns and should not be implicitly endorsed by a decision to deny reciprocal compensation to ISPs which are a subset of local access customers.

74. As required by the FCC, local access pricing for ISPs in Nevada is the local rate structure for business line customers. Reciprocal compensation is a local rate structure element. Denial of reciprocal compensation would represent discriminatory application of an important local rate element available for traffic to the business line customers.

75. Denial of reciprocal compensation for local traffic bound for an ISP will slow the development of competition and negatively affect the Nevada economy and public interest.

76. No party provided analysis or evidence that reasonably supports a subsidy claim. Congress provided the criteria to prevent unreasonable cash flows under reciprocal compensation by requiring an incremental cost foundation. (See 47 U.S.C. §252(d)(A)). No local exchange carrier receives a subsidy if the reciprocal compensation rate is based on the additional costs of terminating calls. The appropriate policy standard to prevent service subsidization is cost-based rates, not a policy that disbands service.

77. Reciprocal compensation should be paid by Nevada Bell to Pac-West or ATG for traffic originated by a Nevada Bell customer and terminated to any customer, including an ISP, obtaining local access from Pac-West or ATG when those customers are located within the same Nevada Bell local calling area. Similarly, reciprocal compensation should be paid by Pac-West or ATG to Nevada Bell for traffic originated by a Pac-West or ATG customer and terminated to any customer, including an ISP, obtaining local access from Nevada Bell when those customes are located within the same Nevada Bell local calling area.

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

In re petition of PAC-WEST TELECOMM, INC. for arbitration pursuant to Section 252 of the Telecommunications Act of 1996 to establish an Interconnection Agreement with Nevada Bell.	)	Docket No. 98-10015
In re petition of ADVANCED TELCOM GROUP, INC. for arbitration of an Interconnection Agreement with Nevada Bell pursuant to Section 252(b) of the Telecommunications Act of 1996.	)	Docket No. 99-1007

ARBITRATION DECISION

The Public Utilities Commission of Nevada ("Commission") makes the following findings of fact and conclusions of law:

Procedural History:

1. On October 12, 1998, Pac-West Telecomm, Inc. ("Pac-West") filed a Petition for Arbitration to establish an Interconnection Agreement with Nevada Bell. The petition was filed pursuant to Chapters 703 and 704 of the Nevada Revised Statutes ("NRS") and the Nevada Administrative Code ("NAC"), the regulations adopted by the Commission in Docket No. 96-12001 (later promulgated at NAC 703.280 et seq.), and 47 U.S.C. §251 et seq. This matter was designated as Docket No. 98-10015. Pac-West is currently authorized to provide resold intrastate interexchange, alternative operator and competitive local exchange services within Nevada pursuant to Certificate of Public Convenience and Necessity ("CPC") 2036 sub 3.

2. Pac West requests that the Commission arbitrate the following issue: whether a party receiving traffic from the other for termination to an Internet Service Provider ("ISP") is entitled to receive reciprocal compensation from the other pursuant to 47 U.S.C. §251(b)(5).

3. On October 22, 1998, the Commission issued a Notice of Petition for Arbitration and Notice of Prehearing Conference for Docket No. 98-10015.

4. On November 6, 1998, Nevada Bell filed its Response to the Petition.

5. By November 18, 1998, the Commission received Notices of Intent to Comment from AT&T Communications of Nevada, Inc. ("AT&T"), GTE California Incorporated, d/b/a GTE of Nevada ("GTE"), the Attorney General's Bureau of Consumer Protection - Utility Consumers' Advocate ("UCA"), Advanced Telcom Group, Inc. ("ATG"), and Sprint Communications Company

L.P.

6. On November 30, 1998, the Commission held a duly noticed Prehearing Conference. Appearances were made by ATG, AT&T, GTE, Nevada Bell, Pac-West, Sprint Communications Company L.P., the Regulatory Operations Staff ("Staff") of the Commission, and the UCA. At the prehearing conference, all parties involved agreed to waive the 9-month deadline for resolution of the unresolved issues as required in 47 U.S.C. §252(b)(4)(C). In its place, the parties proposed a procedural schedule in which the Arbitration Decision would be filed on March 4, 1999, and a final Commission decision would be issued no later than April 5, 1999. On December 10, 1998, the Commission issued a Procedural Order in Docket No. 98-10015. Also, on December 10, 1998, the Commission issued a Notice of Hearing in Docket No. 98-10015.

7. On January 8, 1999, ATG filed a Petition for Arbitration to establish an Interconnection Agreement with Nevada Bell. The petition was filed pursuant to Chapters 703 and 704 of the NRS and NAC, 47 U.S.C. §251 et seq., and, in particular, NAC 703.280 et seq. This matter was designated as Docket No. 99-1007. ATG is currently authorized to provide resold local and intrastate long distance services within Nevada pursuant to CPC 2400.

8. ATG requests that the Commission arbitrate the following issue: whether a party receiving traffic from the other for termination to an ISP is entitled to receive reciprocal compensation from the other pursuant to 47 U.S.C. §251(b)(5).

9. On January 8, 1999, ATG also filed a Motion to Consolidate Hearings on Arbitration of Common Issue pursuant to NAC 703.550 et seq. and 47 U.S.C. §252(b). On January 15, 1999, Staff filed a Joinder in the Motion. No other comments were filed. On January 19, 1999, the Commission issued an Order consolidating Docket Nos. 98-10015 and 99-1007.

10. On January 8, 1999, prefiled direct testimony was filed by ATG and Pac-West. On January 15, 1999, prefiled direct testimony was filed by Nevada Bell. On January 22, 1999, prefiled direct testimony was filed by Staff. On January 29, 1999, prefiled rebuttal testimony was filed by ATG.

11. On January 19, 1999, the Commission issued a Notice of Petition for Arbitration; Notice of Prehearing Conference; Notice of Hearing in Docket No. 99-1007.

12. On February 3, 1999, Notices of Intent to Comment were filed in Docket No. 99-1007 by GTE and Sprint Communications Company, L.P. and Central Telephone Company - Nevada d/b/a Sprint of Nevada (collectively, "Sprint").

13. On February 10, 1999, the Commission held a prehearing conference for Docket Nos.

98-10015 and 99-1007. Appearances were made by ATG, Nevada Bell, Pac-West, and Staff.

14. On February 10, 1999, the Commission commenced a hearing in the consolidated matter of Docket Nos. 98-10015 and 99-1007. Appearances were made by ATG, Nevada Bell, Pac-West, and Staff. The hearing lasted two days which included 385 pages of transcript and 14 exhibits admitted into evidence. At the close of the hearing the Presiding Officer questioned the parties whether the final decision in this matter by the Commission could be extended to April 8, 1999. No party expressed an opposition to the change.

15. On February 18, 1999, post-hearing briefs were filed by ATG, Nevada Bell, Pac-West, Sprint, and Staff.

16. On February 26, 1999, the Federal Communications Commission ("FCC") released a Declaratory Ruling in Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, FCC 99-38. The FCC concluded that ISP-bound traffic is jurisdictionally mixed and appears to be largely interstate. In addition, the FCC concluded that reciprocal compensation obligations should only apply to local traffic that originates and terminates within state defined local calling areas. Finally, the issue of reciprocal compensation for ISP-bound traffic was left to the discretion of state commissions in the exercise of their authority to arbitrate interconnection disputes.

Statutory Guidelines:

17. Pursuant to the Telecommunications Act of 1996 [Pub. L. 104-104, 110 Stat. 56 (codified as amended in scattered sections of Title 47, United States Code)] and, in particular, 47 U.S.C. §252(b)(2)(I), the Presiding Officer has been presented with one issue to resolve in this arbitration: Whether a party receiving traffic from the other for termination to an ISP is entitled to receive reciprocal compensation from the other pursuant to 47 U.S.C. §251(b)(5)?

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reciprocal compensation arrangements for the transport and termination of telecommunications.

19. Pursuant to 47 U.S.C. §251(c)(2)(D), each incumbent local exchange carrier ("ILEC") has the duty to provide for interconnection with the local exchange carrier's network on rates, terms, and conditions that are just, reasonable, and nondiscriminatory.

20. For the purposes of compliance with section 47 U.S.C. §251(b)(5) by an ILEC , the Commission shall not consider the terms and conditions for reciprocal compensation to be just and

reasonable unless such terms and conditions provide for the mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier. 47 U.S.C. §252(d)(2)(A)(i).

Position of the Parties:

Pac-West and ATG:

21. Pac-West states that over the past sixteen years, the FCC has consistently yielded to state jurisdiction over switched calls to Enhanced Service Providers, including ISPs. Without exception, the provision of such services has been deemed an intrastate endeavor. (Pac-West Post-Hearing Brief at 6).

22. While Nevada Bell argues that the FCC has asserted jurisdiction over dial-up access to the Internet through an FCC memorandum decision, Nevada Bell neglected to cite the portion of the decision (Tr. at 275-276), where the FCC makes it unambiguously clear that the order did not consider or address issues regarding whether LECs were entitled to receive reciprocal compensation when they deliver to ISPs circuit-switched dial-up traffic originated by interconnecting LECs. [GTE Operating Cos., CC Docket No. 98-79, Memorandum Opinion and Order, FCC 98-292 (rel. 10/30/98) at ¶2].

23. In addition, ATG states that the FCC's Part 36 Separations Rules do not support Nevada Bell's claim that the FCC requires calls made to ISPs to be assigned to the interstate jurisdiction of the FCC. (ATG Post-Hearing Brief at 13). The FCC ten percent rule applies only to private line and WATS lines; it does not apply to switched lines; and no rule in Part 36 applies the FCC's ten percent rule to the circuit-switched services which are at issue in this proceeding. (Tr. at 269-270).

24. Even if the FCC were to reverse its earlier decisions to leave regulation of circuit-switched ISP traffic to the states, this Commission is nevertheless bound by the Telecommunications Act of 1996 to order the payment of reciprocal compensation for the completion of calls to ISPs until the FCC adopts contrary regulations. (Pac-West Post-Hearing Brief at 8).

25. Pac-West intends to locate a switch in Las Vegas and provide access to ISPs (also located in Las Vegas) via the switch in Las Vegas. Under this scenario, a Nevada Bell customer located in Reno would connect with an ISP in Las Vegas via a switch located in Las Vegas. (Tr. at 8 - 9). Reno and Las Vegas are located in different local access and transport areas (interLATA). Nevertheless, Pac-West is seeking to have reciprocal compensation apply to interLATA calls simply because the customer will access the ISP via a local number.

26. Pac-West and ATG seek to have the Commission define local calls by comparing the rate

center of the NXX codes, rather than by comparing the physical location of the calling and called parties within the local calling area. (Pac-West Petition for Arbitration at 3; ATG Petition for Arbitration at 3).

27. Pac-West states that contrary to Staff's suggestion, there really is no issue of potentially adverse impacts on the local versus toll calling structure since very few toll calls would ever typically be made by consumers for the purpose of accessing ISPs. Thus, Pac-West's service would not be displacing any carrier's toll revenues. Instead, the real issue is merely whether Pac-West should be permitted to push the envelope a little bit in the extent to which local-rated ISP access is made available to consumers in outlying areas. (Pac-West Post-Hearing Brief at 15).

28. Pac-West believes that the best interests of Nevadans lie in allowing Pac-West to provide its services on a foreign exchange basis. (Id. at 15-16).

29. ATG states that even with Nevada Bell's proposal to monitor the usage of phone lines for Internet traffic (Tr. at 257-59), Nevada Bell still has not proposed a way to determine which traffic is terminating at ISPs. (ATG Post-Hearing Brief at 14). The end user requests may only request information from the ISP, and never go anywhere else, or may request information that is held in cache memory by the ISP and not need to go beyond the ISP. (Tr. at 176-77, 197-98, 229-30).

30. ATG believes that an Internet call is two calls. One is a call from the end user to the ISP, over which this Commission has jurisdiction and for which reciprocal compensation applies. The other call is an unregulated Internet data exchange called Internet Service, and is provided without Nevada regulation by entities such as America On Line and Nevada Bell Internet. (ATG Post-Hearing Brief at 16). Consequently, when a call from the public switched network reaches the first ISP modem bank, it ceases to be a telecommunications service provided by a common carrier. (Ex. 4 at 4).

31. ATG states that there is nothing in 47 U.S.C. §251 et seq. or the FCC's implementing rules which would prevent this Commission from finding that all local traffic is subject to the obligation of reciprocal compensation. There is no FCC decision in any proceeding which would limit or prohibit the Commission from making this finding. (ATG Post-Hearing Brief at 10).

32. ATG and Pac-West state that the purpose of reciprocal compensation is to compensate carriers for carrying out call termination functions. When an ILEC terminates a call on a CLEC's network, the ILEC should pay the costs of terminating the call. If reciprocal compensation is not applied to calls to ISPs, the ILEC avoids the costs of terminating the call on its own network and avoids reciprocal compensation payment to terminate its customer's call on another carrier's network. (Tr. at 32). This gives the ILEC a competitive advantage over competing carriers.

33. ATG states that fundamental fairness dictates that ILECs and CLECs should each pay the other to terminate all local switched telecommunications traffic. (Ex. 3 at 5-6; ATG Post-Hearing Brief at 2).

34. ATG states that Nevada Bell is profiting handsomely from the growth in data traffic, and both revenues and earnings are outstripping the growth in number of access lines. (Ex. 4 at 19-20). The bottom line under any analysis is that revenue growth to Nevada Bell from Internet related sales is dwarfing any real or imagined expense from reciprocal compensation. (ATG Post-Hearing Brief at 7).

35. In addition, Nevada Bell has the same opportunity as do the CLECs to avoid paying reciprocal compensation, if it makes an effort to compete for the business of the ISPs. If Nevada Bell were to win ISP companies as customers or even retain the ones it has, then it too would receive reciprocal compensation from other carriers for ISP traffic, as it undoubtedly must if local independents' customers are dialing into ISPs in the Nevada Bell territory. (Ex. 4 at 6).

36. Pac-West stipulated that based on November 1998 data, its ratio of originating calls to terminating calls will be 1:69, while the ratio of originating minutes of use to terminating minutes of use will be 1:683. (Tr. at 51). However, ATG explains that the reason for the discrepancy in numbers between calls terminated on the CLECs' network and the ILEC's network is due to the relative size of the companies and their customer bases. (ATG Post-Hearing Brief at 2).

37. Pac-West states that Nevada Bell's reciprocal compensation payments for any local call, whether to an ISP or any other end user, should equal, dollar for dollar, the costs that Nevada Bell avoids by not having to transport and terminate the call itself. If there is, in fact, no equality between reciprocal compensation payments and avoided costs under the agreement, Nevada Bell, alone, is at fault for attempting to somehow game the system or otherwise failing to accurately state its costs. Id. at 12.

38. However, Nevada Bell has not contended that the UNE prices are faulty. Therefore, it must be concluded that the UNE prices set forth in the agreement are accurate and, as a consequence, that Nevada Bell is truly indifferent, from a long run cost perspective, as to whether it terminates local traffic or whether Pac-West terminates such traffic. (Pac-West Post-Hearing Brief at 12).

39. Strong considerations of law, public policy, and fundamental fairness to various competitive market entrants compel a finding by this Commission that all exchange of local traffic, including voice and data, should be subject to local reciprocal compensation. Fundamentally, reciprocal compensation is a competitively neutral, fair, just, and reasonable mechanism for compensating

termination of calls, and no good reason exists to exclude calls terminated to ISPs. This fundamental reasoning has led commissions in some 27 other states to the same conclusions, with no state commission finding otherwise. (ATG Post-Hearing Brief at 10-11).

Nevada Bell:

40. Nevada Bell believes that ISP calls are jurisdictionally interstate in nature. Nevada Bell cites an FCC order covering GTE's offering of a DSL service which stated that the communications between an end user and an ISP is not made up of an intrastate portion and an interstate portion, but is one communication. [Nevada Bell Post-Hearing Brief at 3 citing GTE Operating Cos., CC Docket No. 98-79, Memorandum Opinion and Order, FCC 98-292 (rel. 10/30/98) at ¶¶1, 17].

41. Nevada Bell also states that because the FCC allowed ISP to access the public switched network via a business line at state tariff rates, the FCC asserted jurisdiction over Internet usage, making the call jurisdictionally interstate. (Tr. at 241). Since ISP calls are jurisdictionally interstate in nature, they should be excluded from the compensation provisions of an agreement for the interconnection of local traffic. (Nevada Bell Post-Hearing Brief at 11).

42. In addition, the communication does not terminate at the ISP's modem, but continues on to the website. [Nevada Bell Post-Hearing Brief at 3 citing GTE Operating Cos., CC Docket No. 98-79, Memorandum Opinion and Order, FCC 98-292 (rel. 10/30/98) at ¶¶19-20; Ex. 8 at 16-17]. This continuous transmission may traverse both state lines and national borders. (Nevada Bell Post-Hearing Brief at 4). Without significant administrative expense to develop a jurisdictional reporting, auditing, and verification procedure for all of the parties handling the calls, or significant investment in measuring equipment by all of the parties, the end-to-end jurisdiction of the call cannot be determined. (Id. at 13-14).

43. Therefore, where it is difficult to determine through measurements or reporting, the jurisdiction of the calls using a service, the service is considered to be "contaminated" (a service handling both interstate and intrastate calls) and may be directly assigned to interstate if the station-to-station or end-to-end interstate usage is more than ten percent of the total usage of the service. If the interstate usage is less than ten percent, the usage and costs for the service are assigned to intrastate. (Ex. 8 at 15 - 16).

44. However, if the calls, usage, and costs are intrastate, they are under the jurisdiction of the Commission. (Ex. 5 at 15).

45. Nevada Bell stated that the term "local call" denotes a call made within a geographical

area, where both the originating and terminating party are located, and where there are no toll or other costs beyond the local exchange service rates. (Id. at 1-2). Nevada Bell agrees with Staff that the traditional definition of a local call should be used in this matter. (Nevada Bell Post-Hearing Brief at 16-17).

46. Nevada Bell believes that using the definition of a "local call" proposed by Pac-West and ATG, would overturn years of industry custom and practice. It would also enable Pac-West and ATG to avoid paying access charges for toll-free type service and even avoid access charges for interLATA services offered to their customers. (Id. at 15).

47. Nevada Bell stated that the FCC rejected the "two call" theory and found that ISP Internet calls do not end or terminate at the ISP but are a single, continuous, end-to-end communications that is originated by a customer, transported to an ISP who then transports that call to a site on or beyond the Internet termination. (Id. at 9).

48. Nevada Bell states that given the nature and current uses of the Internet, it is not possible to identify or separate most Internet traffic by jurisdiction because the customer does not dial 1+ or 0+, but normally dials only seven digits to reach an ISP. Many interconnected companies may be involved in handling the ISP Internet call which may be terminated anywhere in the United States or the world. (Id. at 13).

49. Nevada Bell states that the FCC has determined that reciprocal compensation only applies to local communications:

> Transport and termination of local traffic for purposes of reciprocal compensation are governed by Sections 251(b)(5) and 252(d)(2) while access charges for interstate long-distance traffic are governed by Sections 201 and 202 of the Act. The Act preserves the legal distinctions between charges for transport and termination of local traffic and interstate and intrastate charges for terminating long distance traffic. [Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order, FCC 96-325 (rel. 8/8/96) at ¶1033].

The FCC went on to add:

> We conclude that Section 251(b)(5) reciprocal compensation obligations should apply only to traffic that originates and terminates within a local area as defined in the following paragraph . . . We find that reciprocal compensation provisions of Section 252(b)(5) for transport and termination of traffic do not apply to transport or termination

of interstate or intrastate interexchange traffic. [Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order, FCC 96-325 (rel. 8/8/96) at ¶1034].

These holding eliminate any application of reciprocal compensation to interstate or interexchange traffic. (Nevada Bell Post-Hearing Brief at 8).

50. Nevada Bell asserts that applying reciprocal compensation to dial up calls to ISPs discourages local competition. (Tr. at 7). If reciprocal compensation is permitted, CLECs could begin to use such payments for Internet traffic to fund payments to ISPs for traffic delivered to the ISPs. CLECs could remit some of their reciprocal compensation payments to pay these ISPs for connecting to the CLECs in the first place. Further, Nevada Bell states that it "is prohibited by law from charging its end users, ISPs, or other carriers, access charges for the interstate access costs they are causing." (Nevada Bell Post-Hearing Brief at 20). Therefore, Nevada Bell would be forced to subsidize the CLECs and their interconnecting ISPs for the interstate communications originating from Nevada Bell customers. (Id. at 20).

51. The subsidy arises because Nevada Bell is forced to bear all the costs of originating these calls on its network, is not permitted to charge end users to recover all these costs, and, under Pac-West's and ATG's interpretation, is forced to pay all of the costs of terminating these calls to the ISPs. (Id. at 20).

Staff:

52. Staff believes that if a call to an ISP is an intrastate call, the Commission clearly has jurisdiction to regulate that call. (Staff Post-Hearing Brief at 4). Staff states that the intent of the end user in making a call is irrelevant when determining whether a call is jurisdictionally interstate or intrastate. A call is interstate because it crossed state boundaries while the converse is also true. Therefore, intent cannot be the basis for determining whether a call to an ISP is jurisdictionally interstate. (Id. at 4-5).

53. Any concern regarding interstate and intrastate separations is irrelevant to the determination of whether the Commission has rate-making authority over calls to ISPs. (Id. at 4). The FCC, by allowing ISPs to access the public switched network via a business line at state tariff rates, in effect granted states rate-making authority which includes the authority to determine whether reciprocal compensation should apply to calls to ISPs. (Id.).

54. Staff believes that a local call should be defined on the basis of the physical locations of

the calling and called party. This is the traditional definition of local calling as currently used for rate-making purposes in Nevada. (Ex. 14 at 8).

55. While Pac-West and ATG propose including interLATA calls as local calls for reciprocal compensation purposes, Nevada Bell is currently prohibited from carrying interLATA traffic. Therefore, the Commission should not define calls which must cross interLATA boundaries as local. (Staff Post-Hearing Brief at 6).

56. Staff states that a call to an ISP is viewed as comprising two discrete elements, one being a telecommunications service by which the end user connects to the ISP modem through a local call, the second being an information service by which the ISP converts the customer's analog messages into data packets which are individually routed through its modem to host computer networks located throughout the world. [Ex. 14 at 4 citing California Public Utilities Commission, R-95-04-043 & I-95-04-044, Order (rel. 10/22/98)].

57. Staff believes that when the dial up call to the ISP is a local call, reciprocal compensation should apply, as it does with all other local calls. (Staff Post-Hearing Brief at 6). The failure to apply reciprocal compensation to dial up calls to ISPs would discourage local competition. (Ex. 14 at 12). There is no technical reason to treat calls to ISPs any differently from other voice calls since both types of calls use the same telecommunications network functions. (Id. at 12).

58. The guiding principles to be employed by the Commission should be whether the ILEC and CLEC compete on an equal playing field, and whether the public interest is served. (Id. at 3). The only imbalance, if any does exist, would be due to the fact that Nevada Bell is a monopoly or dominant firm having most of the local telephone customers. (Id. at 11).

59. Staff believes Nevada Bell's primary concern seems to be that Nevada Bell would pay large amounts of money in reciprocal compensation payments if reciprocal compensation were to apply to dial up calls to ISPs. (Ex. 8 at 7-8). Yet, if Nevada Bell's negotiated reciprocal compensation rate is equal to the forward-looking cost of terminating the local call, then Nevada Bell avoids the same cost when its customers' calls are terminated on another carrier's network. (Ex. 14 at 16). Therefore, the appropriate solution to any perceived problem in overpayment by Nevada Bell would be to adjust the reciprocal compensation rates, not eliminating the application of reciprocal compensation. (Tr. at 379 - 380).

Presiding Officer Discussion:

60. The issue before the Presiding Officer is whether Pac-West and ATG are entitled

pursuant to 47 U.S.C. §251(b)(5) to receive reciprocal compensation from Nevada Bell when they receive traffic from Nevada Bell that Pac-West and ATG terminate to an ISP? In order to decide this issue, the Presiding Officer believes four determinations must be made: (A) Does the Commission have jurisdiction to make a decision in this matter? (B) What is a local call? (C) What is the nature of a call "terminated" to an ISP? (D) Should reciprocal compensation apply to a call "terminated" to an ISP?

A. Jurisdiction

61. As the FCC observed, state commission authority over interconnection agreements pursuant to 47 U.S.C. §252 extends to both interstate and intrastate matters. [Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, Declaratory Ruling, FCC 99-38 (rel. 2/26/99) at ¶25 citing CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, 15544 (1996)]. In the absence of a federal rule regarding the appropriate inter-carrier compensation for this traffic, the Presiding Officer finds that the Commission has jurisdiction to determine the issue of reciprocal compensation for these interconnection agreements pursuant to the Commission's statutory obligations under the Telecommunications Act of 1996 (47 U.S.C. §252). As long as the carriers are located in the boundaries of the State of Nevada, the Commission has jurisdiction over that agreement.

62. Furthermore, if a call to an ISP is an intrastate call, the Commission has jurisdiction because the call was made and completed within the boundaries of the state of Nevada.

63. Finally, the Presiding Officer agrees with Staff that the FCC, by allowing ISPs to access the public switched network via a business line at state tariff rates, in effect granted states rate-making authority which includes the authority to determine whether reciprocal compensation should apply to calls to ISPs.

B. Local Call

64. The Presiding Officer finds that a local call is based on the physical location of the originating and terminating parties where there are no toll or other costs beyond the local exchange service rates.[1] To define a local call based on the rate center of the NXX codes as proposed by Pac-West and ATG would subvert industry custom and practice. It could allow them to avoid access

[1]The Presiding Officer notes Nevada Bell's argument that the "intent" of the calling party determines whether the call is an interstate call. (Tr. at 87, 95-100). While ATG, Pac-West, and Staff were forced to expend resources addressing this contention, the Presiding Officer believes that delving into the mental beliefs of a calling party during these proceedings is preposterous.

charges for toll calls and interLATA calls as well.

C. Call "Terminated" to an ISP

65. The Internet is an international network of interconnected computers enabling millions of people to communicate with one another and to access vast amounts of information from around the world. 47 U.S.C. §230.

66. For purposes of this discussion, Internet calling is a communication that begins with an end user in Nevada dialing a local telephone number in Nevada for connection to an ISP. The call passes through Nevada Bell's central office and is placed on an interconnection trunk for completion through a CLEC's switch. At the CLEC's switch, the call is then placed on another trunk and sent to an ISP's router, which may be located in another LATA. At the ISP's router, the connection remains open and the caller can communicate through the Internet with data bases in other states and countries.

67. The FCC has traditionally determined jurisdictional nature of a communication by the end points of the communication. [Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, Declaratory Ruling, FCC 99-38 (rel. 2/26/99) at ¶10]. When a call is "terminated" to an ISP, the FCC has concluded that the communications at issue here do not terminate at the ISP's local server, as CLECs and ISPs contend, but continue to the ultimate destination or destinations, specifically at an Internet website that is often located in another state. (Id. at ¶12).

68. The Presiding Officer finds that a call "terminated" to an ISP consists of two parts: the telecommunications service and information service. Those two parts comprise one communication.

D. Reciprocal Compensation

69. Reciprocal compensation compensates one company for allowing another company to use its facilities. It covers the cost so that the prior company does not have to duplicate construction and equipment used to complete the call.

70. Pursuant to 47 U.S.C.§251(b)(5), reciprocal compensation obligations should apply only to traffic that originates and terminates within state-defined local calling areas. [Id. at ¶24 citing CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, 16013 (1996)]. Therefore, reciprocal compensation should not be applied to interstate calls, interLATA calls, or intraLATA calls that are not local calls.

71. The Presiding Officer finds that the communications at issue here do not necessarily terminate at the ISP's local server, as ATG and Pac-West contend. Instead, the communications may

continue to the ultimate destination or destinations, specifically at an Internet website that is often located in another LATA, state, or country.

72. From the record presented to the Commission, the parties were unable to show what portion of calls "terminated" to an ISP remain local. In a single Internet communication, an Internet user may, for example, request information that is held locally in cache memory by the ISP, access websites that reside on servers in various states or foreign countries, communicate directly with another Internet user, or chat on-line with a group of Internet users located in the same local exchange or in another country. [Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, Declaratory Ruling, FCC 99-38 (rel. 2/26/99) at ¶18].

73. Furthermore, no party provided a plausible way to identify and separate Internet traffic by jurisdiction. Once the traffic reaches the ISP modem, nobody knows for sure what is local or long distance after that point. (Tr. at 229-230). The FCC concluded that although some Internet traffic is intrastate, a substantial portion of Internet traffic involves accessing interstate or foreign websites. [Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, Declaratory Ruling, FCC 99-38 (rel. 2/26/99) at ¶18]. Therefore, the Presiding Officer finds that unless a party can show that a local call "terminated" to an ISP remains local during the communication, consideration of reciprocal compensation is not warranted.

74. The Presiding Officer finds that any Internet traffic that can be shown to remain local is subject to reciprocal compensation if it can also be shown to be just, and reasonable.

75. Pac-West stipulated that based on November 1998 data, its ratio of originating calls to terminating calls will be 1:69, while the ratio of originating minutes of use to terminating minutes of use will be 1:683. (Tr. at 51). The Presiding Officer does not agree with ATG's explanation that the discrepancy is due to the relative size of the companies. Instead, the Presiding Officer believes the discrepancy is based on the fact that the CLEC's customers, predominantly ISPs, are on average receiving 69 times more inbound communications than they are making outbound. In addition, each inbound communication lasts ten times as long as the average outbound one.

76. Given this huge disparity, the Presiding Officer believes that the ISPs, ATG and Pac-West, are setting up in part as CLECs to reap the windfall of potential payouts by Nevada Bell for reciprocal compensation. Nevada Bell would receive little, if any, revenue from Pac-West or ATG because their primary focus would be on the provision of call termination services to ISPs, paging companies, and other companies generating large volumes of inbound traffic. (Ex. 1 at 2). As a result,

Nevada Bell would be forced to essentially subsidize Internet Service. This is not just or reasonable. ATG and Pac-West have not proven to the Presiding Officer that they will effectively provide local service. Instead, the Presiding Officer believes they are attempting to provide service to business customers for Internet Service with only token local service in an attempt to meet the reciprocal compensation criteria.

77. The Presiding Officer finds that the record built by ATG and Pac-West has not met the just and reasonable standard established pursuant to 47 U.S.C. §252(d)(2)(A)(I) to receive reciprocal compensation for Nevada Bell calls terminated on the networks of ATG and Pac-West.

78. Notwithstanding, Pac-West and ATG are still set up to make a profit. ATG stated that it will still recover its costs over the long run from its ISP end users and other end users without the benefit of reciprocal compensation. (Tr. at 77-79).

79. In conclusion, Section 252(b)(2)(A) of the Telecommunications Act of 1996 was written to promote local competition, not Internet service. Reciprocal compensation is for local calls, not those that terminate on the Internet outside of the local calling area.

THEREFORE, based on the foregoing, it is HEREBY ORDERED that:

1. Pursuant to NAC 703.288(4)(b) this Arbitration Decision shall be served on Nevada Bell, Advanced Telcom Group, Inc. and Pac-West Telecomm, Inc., the Regulatory Operations Staff of the Commission, and the Attorney General's Bureau of Consumer Protection.

2. Pursuant to NAC 703.288(4)(c) this Arbitration Decision shall be provided to AT&T Communications of Nevada, Inc., GTE of California Incorporated d/b/a GTE of Nevada, and Sprint Communications Company L.P. and Central Telephone Company - Nevada d/b/a Sprint of Nevada.

3. The Presiding Officer retains jurisdiction for the purpose of correcting any errors which may have occurred in the drafting or filing of this Arbitration Decision.

By the Presiding Officer,

DONALD SODERBERG, Commissioner and Presiding Officer

Dated: Carson City, Nevada

3/4/99

(SEAL)

PUBLIC UTILITIES COMMISSION OF NEVADA PUC

TOTAL P.15

DOCKET NO. 21982

PROCEEDING TO EXAMINE RECIPROCAL COMPENSATION PURSUANT TO SECTION 252 OF THE FEDERAL TELECOMMUNICATIONS ACT OF 1996	**§ § § § §**	**PUBLIC UTILITY COMMISSION OF TEXAS**

REVISED ARBITRATION AWARD
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DOCKET NO. 21982

PROCEEDING TO EXAMINE RECIPROCAL COMPENSATION PURSUANT TO SECTION 252 OF THE FEDERAL TELECOMMUNICATIONS ACT OF 1996	§ § § § §	**PUBLIC UTILITY COMMISSION OF TEXAS**

REVISED ARBITRATION AWARD

This Revised Arbitration Award (Award)[1] approves permanent rates for inter-carrier compensation relating to the transport and termination of local traffic between Southwestern Bell Telephone Company (SWBT) and certain competitive local exchange carriers (CLECs). Specifically, these rates provide reciprocal compensation for the inter-office transport, end-office switching, and tandem switching of local traffic. For purposes of this Award, a call to an Internet service provider (ISP) is subject to these reciprocal compensation rates to the extent that such a call originates from and terminates to end-users within the same local calling area. In the event that the Federal Communications Commission (FCC) concludes differently in its pending proceeding addressing compensation for ISP-bound traffic[2], this Award is not retroactively affected by any such ruling unless the FCC specifically requires retroactive application.

SWBT and any CLEC that has requested arbitration of the issue of inter-carrier compensation in this proceeding[3] pursuant to § 252 of the federal Telecommunications Act of 1996[4] shall incorporate the rates approved in this Award in any interconnection agreement which is subject to the outcome of this proceeding. If the CLEC has formally notified the Commission

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[1] The Commission issued its initial Arbitration Award on July 13, 2000. This Revised Arbitration Award supersedes the initial Arbitration Award.

[2] *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98; and *Inter-Carrier Compensation of ISP-Bound Traffic*, CC Docket No. 99-68, Public Notice.

[3] Order No. 3 required CLECs to file petitions seeking arbitration of the issue of inter-carrier compensation in this proceeding by February 3, 2000. Order No. 3 at 1 (Jan. 25, 2000).

[4] Pub. L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 15 and 47 U.S.C.) (FTA).

of its election of either the first or third option regarding reciprocal compensation for local traffic in Attachment 12 of the Texas 271 Agreement (T2A)[5], then a true-up of the applicable bill-and-keep period shall be performed using the inter-carrier rates approved in this Award.[6]

I. JURISDICTION

If an incumbent local exchange carrier (ILEC) and CLEC cannot successfully negotiate rates, terms and conditions in an interconnection agreement, FTA § 252(b)(1) provides that either of the negotiating parties "may petition a State commission to arbitrate any open issues." The Commission is a state regulatory body responsible for arbitrating interconnection agreements approved pursuant to the FTA.

II. PROCEDURAL HISTORY

On January 13, 2000, the Commission initiated this proceeding for the purpose of consolidating requests to arbitrate the issue of reciprocal compensation for the transport and termination of local traffic. This proceeding addresses only this single issue; other issues for which arbitration is requested by the carriers participating in this docket are addressed in separate arbitration proceedings relating to specific interconnection agreements. The Commission limited

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[5] *Investigation of Southwestern Bell Telephone Company's Entry into the Texas InterLATA Telecommunications Market*, Project No. 16251, Order No. 55 (Oct. 13, 1999). The T2A is a standardized interconnection agreement available from SWBT through October 13, 2003. *See* Project No. 16251, Order No. 55, Attachment 12 at ¶ 4.1; Docket No. 16251, SWBT Letter Agreeing to Extend T2A (July 7, 2000). Attachment 12 to the T2A addresses the issue of reciprocal compensation, providing an electing CLEC with three options from which to choose. Under the first option, after January 22, 2000, SWBT and the electing CLEC shall operate under a bill-and-keep arrangement for all wireline traffic, including ISP-bound traffic, during periods of negotiation and/or arbitration. The second option permits the parties to operate under a bill-and-keep arrangement for the duration of their agreement. Under the third option, commencing on the date that the CLEC opts into the T2A, SWBT and the electing CLEC seeking to negotiate and/or arbitrate the issue of compensation shall operate under a bill-and-keep arrangement for all wireline traffic, including ISP-bound traffic, during periods of negotiation and/or arbitration. The bill-and-keep arrangements under both the first and third options are subject to true-up. The Commission concludes that the true-up period under the first and third options ends upon the Commission's approval of an interconnection agreement incorporating the inter-carrier compensation rates approved in this Award.

[6] After a CLEC files notification of its intent to opt into the T2A, in whole or in part, the Commission issues a letter of acknowledgement.

participation in this docket to only those parties arbitrating the issue of reciprocal compensation in this proceeding, *i.e.*, SWBT and interconnecting CLECs, [7] consistent with P.U.C. SUBST. R. 22.305(e).[8]

The parties in this proceeding are: Adelphia Business Solutions of Texas, LLP (Adelphia), Allegiance Telecom of Texas, Inc. (Allegiance), AT&T Communications of the Southwest, Inc. (AT&T), CCTX, Inc. D/B/A Connect! (Connect), the CLEC Coalition[9] (the Coalition), e.spire Communications, Inc. (e.spire), Focal Communications Corp. (Focal), Level 3 Communications (Level 3), MCI Worldcom Communications, Inc. (WCOM), Southwestern Bell Telephone Company (SWBT), and Taylor Communications Group, Inc. (Taylor Comm.).[10]

The parties engaged in discovery through April 4, 2000. Direct testimony was filed on March 15, 17, and 20, 2000; rebuttal testimony was filed on March 31, 2000. The hearing on the merits was held on April 4 and 5, and May 18, 2000.

The Commission issued its initial Arbitration Award on July 13, 2000. SWBT, WCOM, AT&T, CLEC Coalition, and Taylor Comm. filed motions for reconsideration of the Award on

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[7] *See generally* Order No. 3 (Jan. 25, 2000). GTE Southwest, Inc. and other ILECs did not seek to expand the scope of this proceeding to arbitrate reciprocal compensation issues for purposes of their interconnection agreements.

[8] This rule allows only the parties to the interconnection agreement to participate as parties in the arbitration proceeding.

[9] The CLEC Coalition includes: Time Warner Telecom, L.P. (TW), KMC Telecom, Inc. (KMC), GST Telecom, Inc. (GST), NEXTLINK Texas, Inc. (NEXTLINK), Intermedia Communications, Inc. (Intermedia), ICG Choicecom, L.P. (ICG), Teligent, Inc. (Teligent), Winstar Wireless of Texas, Inc. (Winstar), and Reliant Energy (Reliant).

[10] With the exception of WCOM and Taylor Comm., the CLECs participating in this docket filed requests to arbitrate the reciprocal compensation issue in this proceeding. WCOM and Taylor became parties to this proceeding by virtue of the severance of the issue of reciprocal compensation from other arbitration proceedings and the consolidation of such severed issue into this proceeding. *Petition of Southwestern Bell Telephone Company for Arbitration with MCI Worldcom Communications, Inc., Pursuant to Section 252(b)(1) of the Federal Telecommunications Act of 1996*, Docket No. 21791, Order No. 6 (Jan. 26, 2000); *Petition of Taylor Communications Group, Inc. for Arbitration with Southwestern Bell Telephone Company Pursuant to Section 252(b)(1) of the Federal Telecommunications Act of 1996*, Docket No. 21754, Order No. 7 (Jan. 24, 2000).

August 17, 2000.[11] Responses to the motions for reconsideration were filed by SWBT, Taylor Comm., and CLEC Coalition. The motions for reconsideration are denied for want of merit unless the relief requested is expressly granted in this Award.

III. RELEVANT STATE AND FEDERAL PROCEEDINGS

A. RELEVANT COMMISSION DECISIONS

Mega-Arbitrations

The FTA became effective in February 1996. Soon thereafter, several proceedings—collectively referred to as the Mega-Arbitrations—were initiated and consolidated for the purpose of arbitrating the first interconnection agreements in Texas under the new federal statute. A focal issue in these proceedings revolved around establishing "reciprocal compensation" rates. "Reciprocal compensation" refers to the statutorily mandated arrangement between two carriers by which each carrier receives compensation for the transport and termination on its network facilities of local telecommunications traffic that originates on the network facilities of the other carrier.[12]

In November 1996, the Commission issued the First Mega-Arbitration Award in Docket No. 16189,[13] which established inter-carrier compensation rates, on an interim basis, for end-office switching, tandem switching, and inter-office transport. The reciprocal compensation rates adopted in the First Mega-Arbitration Award applied to calls that originated and terminated

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[11] Taylor Comm. filed its motion on August 1, 2000. This pleading was deemed filed on August 17, 2000. *See* Letter of Danny S. Ashby at 2 (Aug. 2, 2000).

[12] *See* FTA §§ 251(b)(5), 252(d)(2). The FCC has construed the reciprocal compensation requirement in the FTA to apply to *local* telecommunications traffic only. 47 C.F.R. § 51.701(e) (1998).

[13] *Petition of MFS Communications Company, Inc. for Arbitration of Pricing of Unbundled Loops Agreement Between MFS Communications Company, Inc. and Southwestern Bell Telephone Company,* Docket No. 16189, *et al,* Award (Nov. 8, 1996) (First Mega-Arbitration Award).

within SWBT's mandatory single- or multi-exchange local calling areas, including areas encompassed by mandatory Extended Area Service (EAS) arrangements. During the first nine months after the date upon which the first commercial call terminated between SWBT and a CLEC, however, the Commission designated "bill-and-keep"[14] as the arrangement by which reciprocal compensation would be accomplished.

The Second Mega-Arbitration Award in Docket No. 16189,[15] issued December 1997, approved cost studies for SWBT and established permanent inter-carrier compensation rates. These permanent rates appear in Attachment A to this Award.

Pursuant to FTA § 252(i), many CLECs subsequently opted into the reciprocal compensation provisions in the interconnection agreements approved in the Mega-Arbitration proceedings. Neither the First nor Second Mega-Arbitration Award, or the interconnection agreements resulting from those proceedings, specifically addressed the issue of whether an ISP-bound call is subject to reciprocal compensation.

Docket No. 18082

The reciprocal compensation provisions in the interconnection agreements approved in the Mega-Arbitration proceedings were initially disputed in Docket No. 18082.[16] In October 1997, Time Warner Communications of Austin L.P., Time Warner Communications of Houston, L.P., and FIBRcom (collectively, TW Comm) filed a complaint pursuant to Subchapter Q of the Commission's procedural rules, alleging that SWBT had breached its interconnection agreement with TW Comm. Specifically, the controversy centered on compensation for calls connecting

[14] FTA §252(d)(2)(B)(i) permits "arrangements that afford the mutual recovery of costs through the offsetting of reciprocal obligations, including arrangements that waive mutual recovery (such as bill-and-keep arrangements)."

[15] *Petition of MFS Communications Company, Inc. for Arbitration of Pricing of Unbundled Loops Agreement Between MFS Communications Company, Inc. and Southwestern Bell Telephone Company*, Docket No. 16189, *et al*, Award (Dec. 19, 1997) (Second Mega-Arbitration Award).

[16] *Complaint and Request for Expedited Ruling of Time Warner Communications*, Docket No. 18082, Order (Feb. 27, 1998).

SWBT customers to TW Comm customers that are ISPs. SWBT had refused to compensate TW Comm for such calls according to the reciprocal compensation rates in the interconnection agreement, based on its contention that those calls were not "local" in nature.

The Commission rejected SWBT's position and concluded that the calls in controversy were subject to the interconnection agreement's provisions relating to reciprocal compensation for the transport and termination of local traffic. In reaching this conclusion, the Commission first examined the nature of an ISP-bound call. It found that a call over the Internet consists of two components: (1) the information service component, which is the content of the call, and (2) the telecommunications service component, which is the carrier-to-carrier and carrier-to-end-user transmission of the call. With respect to the latter, the Commission concluded that when a person calls an ISP within a local calling area, the traffic carried on the call's transmission path is local in nature, with the telecommunications service component of the call terminating at the ISP.[17]

Having reached this conclusion, the Commission then found that the scope of the definition of "local traffic" in the interconnection agreement included ISP traffic. The interconnection agreement's definition stated that, for reciprocal compensation purposes, "local traffic" includes (1) a call that originates and terminates in the same SWBT exchange area, or (2) originates and terminates within different SWBT exchanges that share a common mandatory calling area, *e.g.*, mandatory EAS, mandatory extended local calling service (ELCS), or any other service with a mandatory expanded local calling scope. The definition did not distinguish types of calls (*i.e.*, Internet versus voice), but rather focused upon the area in which the call originated and terminated. Therefore, if a call to an ISP originated and terminated within the same exchange or mandatory calling area, the traffic terminating at the ISP constituted "local traffic" and, consequently, was subject to the reciprocal compensation rates for such traffic, as specified in the interconnection agreement.

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[17] In finding that such traffic is local in nature, the Commission rejected SWBT's end-to-end analysis of an ISP-bound call, which viewed the call as terminating at the website or websites ultimately accessed by the calling party, rather than at the ISP.

Other Post-Interconnection Agreement Disputes - Other post-interconnection agreement disputes between ILECS, including SWBT, and CLECS involving the same issue arose after the Commission's ruling in Docket No. 18082. In those subsequent proceedings interpreting specific interconnection agreements, the Commission applied the precedent established in Docket No. 18082 in finding that the transport and termination of calls to ISPS is subject to reciprocal compensation.[18]

B. RELEVANT FEDERAL COMMUNICATIONS COMMISSION DECISIONS

Declaratory Order and Notice of Proposed Rulemaking

The issue of whether ISP-bound traffic is subject to reciprocal compensation also arose in other states. In response to formal and informal requests to clarify whether a carrier is entitled to receive reciprocal compensation for traffic delivered to an ISP, the FCC issued a declaratory ruling and notice of proposed rulemaking in early 1999.[19]

The FCC's declaratory ruling concluded that ISP-bound traffic is jurisdictionally mixed and appears to be largely interstate in nature. In reaching this conclusion, the FCC rejected the notion that a call to an ISP is divisible into two separate parts, the information service component and the telecommunications service component. Rather, it focused upon the end-to-end nature of the communication, the approach traditionally used by the agency in determining whether a communication is intra- or interstate in nature. Finding that "[a]n Internet connection does not

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[18] *See Petition of Waller Creek Communications, Inc. for Arbitration with Southwestern Bell Telephone Company,* Docket No. 17922 , Order Approving Interconnection Agreement (April 28, 1998); *Complaint of Taylor Communications Group, Inc. Against Southwestern Bell Telephone Company*, Docket No. 18975, Order No. 3 (May 4, 1998); *Complaint and Request for Expedited Ruling of Golden Harbor of Texas, Inc.*, Docket No. 19160, Arbitrator's Decision (June 30, 1998); *Petition for Arbitration Pursuant to FTA § 252(b) to Establish Interconnection Agreement with GTE Southwest Incorporated,* Docket No. 20028, Arbitration Award (Feb. 22, 1999); *Complaint of MFS Against GTE Southwest, Inc. Regarding GTE's Nonpayment of Reciprocal Compensation*, Docket No. 21706, Preliminary Order (April 13, 2000).

[19] *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, Declaratory Ruling; *Inter-Carrier Compensation of ISP-Bound Traffic*, CC Docket No. 99-68, Notice of Proposed Rulemaking, 14 FCC Rcd 3689 (Feb. 26, 1999).

have a point of 'termination' in the traditional sense," the FCC found that a call to an ISP does not terminate at the ISP, but instead continues to its ultimate destination of an Internet website that is often located in another state or country. As a result of these conclusions, the FCC determined that FTA § 251(b)(5) does not *impose* any reciprocal compensation requirement for ISP-bound traffic.

Despite this statutory interpretation, however, the FCC stated that its conclusion did not, in and of itself, preclude the application of reciprocal compensation to the transport and termination of ISP-bound traffic. The FCC observed that parties to interconnection agreements may have agreed to the payment of reciprocal compensation for ISP-bound traffic, or that state commissions may have concluded that such compensation is due for such traffic in arbitration and other proceedings conducted pursuant to FTA § 252. Until it addressed the matter of appropriate inter-carrier compensation for ISP-bound traffic further in a rulemaking proceeding, the FCC stated that interconnecting parties continued to be bound by their existing agreements, as interpreted by state commissions, with respect to the issue of reciprocal compensation in the context of ISP-bound traffic.

Finally, the FCC expressed its desire that carriers, in the first instance, establish inter-carrier compensation for ISP-bound traffic based on interconnection agreement negotiations. In view of the need to further develop the record for the purpose of adopting a rule regarding inter-carrier compensation for ISP-bound traffic, the FCC solicited comments on two alternative proposals to govern carriers' negotiations on this issue.[20]

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[20] The comments filed by the Commission in response to this notice of proposed rulemaking agreed with the FCC's position that commercial negotiations are the optimal means for establishing interconnection agreements. Furthermore, the Commission stated that the resolution of the reciprocal compensation issue is best determined under the aegis of the FCC and FTA §§ 251 and 252. *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98; *Inter-Carrier Compensation of ISP-Bound Traffic*, CC Docket No. 99-68, Comments of the Public Utility Commission of Texas (April 8, 1999).

C. RELEVANT COURT DECISIONS

Judicial Appeal of Docket No. 18082: Southwestern Bell Telephone Company v. Public Utility Commission of Texas (U.S. District Court; Western District, Texas; Midland/Odessa Division)

SWBT appealed the Commission's order in Docket No. 18082 to federal district court, seeking declaratory and injunctive relief.[21] The federal district court affirmed the Commission's decision. After discussing the interstate characteristics of the Internet and the FCC's unique regulatory treatment of the Internet, the federal district court concurred in the Commission's two-component analysis of an ISP-bound call, and characterized the call terminating at the ISP as local traffic. The federal district court further concluded that the Commission relied upon substantial evidence to conclude that the SWBT/Time Warner interconnection agreement required the originating carrier to pay reciprocal compensation for calls to ISPs within the same local calling area.

Judicial Appeal of Docket No. 18082: Southwestern Bell Telephone Company v. Public Utility Commission of Texas (U.S. Court of Appeals, Fifth Circuit)

SWBT subsequently appealed the federal district court's decision to the Fifth Circuit court of appeals.[22] The court of appeals affirmed the lower court's decision. After denying SWBT's challenges to the Commission's exercise of jurisdiction in Docket No. 18082, the federal appellate court concluded that the Commission's decision in Docket No. 18082 did not conflict with the FTA, FCC rules, or FCC rulings. Citing language from the FCC's declaratory ruling on ISP-bound traffic, it found that a state commission may lawfully interpret an interconnection agreement as requiring reciprocal compensation for ISP-bound traffic, particularly given the FCC's past policy of treating ISP traffic as if it were local traffic in other contexts. Furthermore, the federal district court held that the Commission properly interpreted

[21] *Southwestern Bell Telephone Company v. Public Utility Commission of Texas*, No. MO-98-CA-43, 1998 U.S. Dist. LEXIS 12938 (W.D. Tex., June 16, 1998).

[22] *Southwestern Bell Telephone Company v. Public Utility Commission of Texas*, 208 F.3d 475 (5th Cir. 2000).

the SWBT/Time Warner interconnection agreement to impose reciprocal compensation obligations for calls to ISPs within a local calling area.[23]

Judicial Appeal of FCC's Declaratory Order: Bell Atlantic Telephone Companies v. Federal Communications Commission (U.S. Court of Appeals, D.C. Circuit)

Bell Atlantic and a group of CLECs appealed the FCC's declaratory ruling to the District of Columbia (D.C.) Circuit court of appeals.[24] The appellate court vacated the FCC's decision and remanded the proceeding to the federal agency for want of reasoned decision-making. The appellate court concluded that the FCC failed to adequately explain why an end-to-end analysis, which the federal agency has traditionally used to determine the jurisdictional nature of a communication, made sense in the context of the reciprocal compensation issue, in terms of both the FTA and FCC rules. Specifically, it found that "[the FCC] has yet to provide an explanation why this inquiry is relevant to discerning whether a call to an ISP should fit within the local call model of two collaborating LECs or the long-distance model of a long-distance carrier collaborating with two LECs."[25]

In remanding the matter to the FCC, the court of appeals made several observations about the fallacies in the FCC's reliance on the end-to-end analysis in addressing the reciprocal compensation issue. The appellate court noted that a call to an ISP appears to fit within the definition of "termination" in the FCC's rules, that is, the traffic is switched by the carrier whose customer is the ISP and then delivered to the ISP.[26] The FCC, however, failed to apply or mention this definition in its declaratory ruling, instead relying on an end-to-end analysis

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[23] Throughout its opinion, the court of appeals cited extensively to another federal appellate court's decision on the same issues in support of its conclusions. *See Illinois Bell Telephone Company v. Worldcom Techs., Inc.*, 1790 F.3d 566 (7th Cir. 1999).

[24] *Bell Atlantic Telephone Companies v. Federal Communications Commission,* 206 F.3d 1 (D.C. Cir. 2000).

[25] *Id.* In view of the grounds for remand, the court of appeals did not reach the issue raised by Bell Atlantic with respect to whether FTA § 251(b)(5) preempts state commissions from compelling reciprocal compensation payments for ISP-bound traffic.

previously applied in contexts that the appellate court characterized as different and distinct from the context of Internet communications. The appellate court also criticized the contradiction in the FCC's application of the end-to-end analysis to characterize ISP-bound traffic as interstate traffic in view of the FCC's prior rulings exempting ISPs and other interactive computer services from access charges. Finally, the court of appeals pointed out the lack of satisfactory explanation offered by the FCC as to how its conclusions with regard to ISP-bound traffic accord with the statutory definitions of "exchange access" and "telephone exchange service". [27]

In June 2000, the FCC issued a notice seeking comments in response to the remand by the D.C. Circuit court of appeals.[28] The notice requested comment on the jurisdictional nature of ISP-bound traffic; the scope of the reciprocal compensation requirement in FTA § 251(b)(5); and the relevance of terms such as "termination", "telephone exchange service", "exchange access service", and "information access" to the issue of reciprocal compensation in the context of ISP-bound traffic. Furthermore, the notice requested comment on any new or innovative inter-carrier compensation arrangements for ISP-bound traffic that are currently under consideration or that have been adopted through negotiation or arbitration.

IV. INTER-CARRIER COMPENSATION RATES

The inter-carrier compensation rates approved in the Mega-Arbitrations, as reflected in Attachment A to this Award, form the basis of the inter-carrier compensation rates approved in this Award pursuant to FTA § 252(d)(2). The inter-office transport and tandem switching rates approved in the Mega-Arbitration proceedings are re-adopted in this Award. For the calculation of the bifurcated end-office switching rate approved in this docket, the Commission relies upon

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[26] *Id.* The relevant FCC rule defines "termination" as "the switching of traffic that is subject to section 251(b)(5) at the terminating carrier's end office switch (or equivalent facility) and delivery of that traffic from that switch to the called party's premises" 47 C.F.R. 51.701(d).

[27] *See* 47 U.S.C. §§ 153(16), 153(47) (2000).

[28] *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98; and *Inter-Carrier Compensation of ISP-Bound Traffic*, CC Docket No. 99-68, Public Notice (June 23, 2000).

the local switching cost studies approved in the Mega-Arbitrations and the Basic Network Function (BNF) cost studies approved in Project No. 16657.[29] For purposes of the methodology approved in this Award for calculating a blended tandem switching rate, the tandem switching and inter-office transport rates approved in the Mega-Arbitrations are elements in the methodology, as well as the bifurcated end-office switching rate approved in this Award.

Consistent with the First Mega-Arbitration Award,[30] the T2A[31], and Section V.A. of this Award, the following definition of "Local Traffic" will apply to the inter-carrier rates approved in this Award and shall be incorporated in affected interconnection agreements:

> Calls originated by [CLEC's] end users and terminated to SWBT's end users (or vice versa) will be classified as "Local Traffic" under this Agreement and subject to reciprocal compensation if the call: (i) originates from and terminates to such end-users in the same SWBT exchange area; or (ii) originates from and terminates to such end-users within different SWBT exchanges, or within a SWBT exchange and an independent ILEC exchange, that share a common mandatory local calling area, *e.g.*, mandatory extended area service (EAS), mandatory extended local calling service (ELCS), or other types of mandatory expanded local calling scopes. For the purposes of reciprocal compensation, a call to an Internet Service Provider is classified as "Local Traffic" if it meets either requirement in (i) or (ii).

V. DISCUSSION OF DPL ISSUES

This proceeding address the four issues in Joint Decision Point List (DPL) filed by the parties on February 22, 2000:

> DPL Issue No. 1: What traffic should be subject to reciprocal compensation?
>
> DPL Issue No. 2: What method should be used to determine inter-carrier compensation?

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[29] *Southwestern Bell Telephone Company's Application for Approval of LRIC Studies for Basic Network Access Channel Nonstandard 4-Wire, Type O, et al., Pursuant to P.U.C. SUBST. R. 23.91*, Order No. 8 (Nov. 12, 1997).

[30] First Mega-Arbitration Award at ¶58 (Nov. 8, 1996).

[31] Docket No. 16251, Order No. 55, Attachment 12 at ¶ 1.1.

DPL Issue No. 3: What is the appropriate rate or rates (e.g., symmetrical/asymmetrical) at which compensation should be made?

DPL Issue No. 4: What is the appropriate method by which to bill for this traffic?

A. DPL ISSUE NO. 1: WHAT TRAFFIC SHOULD BE SUBJECT TO RECIPROCAL COMPENSATION?

(a) SWBT's Position

SWBT asserts that the FCC has determined that the FTA's reciprocal compensation requirement applies to the exchange of local traffic only. It defines "local traffic" as traffic that is either within a single exchange or traffic that is between exchanges subject to mandatory local calling; in either instance, such traffic falls within the "basic/local" retail calling scope of an exchange customer.[32] SWBT contends that ISP-bound traffic, however, does not originate and terminate within any such calling scope and is largely interexchange in nature. Consequently, SWBT avers that ISP-bound traffic is not subject to reciprocal compensation. It argues that a call placed to an ISP has end-to-end connectivity to almost anywhere in the world--in other words, such a call is not terminated locally but rather to some point on the World Wide Web.[33] In support of this argument, SWBT relies upon the FCC's declaratory ruling addressing the nature of ISP-bound traffic as it relates to reciprocal compensation.[34]

SWBT also states that all local traffic originated through unbundled network elements (UNEs) is eligible for reciprocal compensation. SWBT explains that the manner in which a CLEC decides to originate its customers' calls is irrelevant as to whether reciprocal compensation applies to those calls, given that the CLEC's method of doing business does not

[32] SWBT Ex. No. 7, Direct Testimony of D. Randy Long at 6.

[33] SWBT Ex. No. 5, Direct Testimony of Robert Jayroe at 5.

[34] *In the Matter of the Implementation of Local Competition Provisions in the Telecommunications Act of 1996, Inter-Carrier Compensation for ISP-Bound Traffic*, CC Docket No. 96-98, Declaratory Ruling; *Inter-Carrier Compensation of ISP-Bound Traffic*, CC Docket No. 99-68 Notice of Proposed Rulemaking (Feb. 25, 1999).

affect SWBT's cost to terminate the traffic.[35] SWBT contends, however, that the following types of traffic are not eligible for reciprocal compensation:

- Traffic terminated through Internet Gateways, which generally are not used to originate traffic, but rather serve to receive traffic for purposes of routing that traffic to an ISP local server: SWBT contends that this type of traffic is not "local" in nature and that the traffic flow is inherently "one-way," *i.e.*, there is no exchange of originating and terminating traffic between the carriers.[36]
- Transit carriers: SWBT asserts that such a carrier (*i.e.*, the second or intermediate carrier) neither originates nor terminates the call, but simply directs the call to its destination, and is only entitled to recover the cost for transiting the call across its network.[37]
- FX-type traffic, which is traffic that originates in one local exchange area and is delivered to a telephone number that is assigned to that same local exchange area, although the physical premises for that telephone number and the customer are located in another local exchange area[38]: SWBT states that, but for the retail FX arrangement, the call would be an interexchange, intraLATA long-distance call.[39]
- 8YY traffic, which is traffic consisting of those calls which use "800", "877", or "888" as the area code:[40] SWBT posits that such calls are generally not subject to reciprocal compensation requirements and may be considered "local" for reciprocal compensation purposes only if the call originates and terminates in the same SWBT exchange area or within exchanges that share a common mandatory calling area.[41]

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[35] SWBT Ex. No. 8, Rebuttal Testimony of D. Randy Long at 21.

[36] SWBT Ex. No. 7, Direct Testimony of D. Randy Long at 7-9.

[37] SWBT Ex. No. 7, Direct Testimony of D. Randy Long at 12.

[38] SWBT Ex. No. 7, Direct Testimony of D. Randy Long at 10.

[39] SWBT Ex. No. 7, Direct Testimony of D. Randy Long at 10.

[40] The originating party using one of these area codes is not charged for the call. The carrier terminating the call typically pays for 8YY calls.

[41] SWBT Ex. No. 8, Rebuttal Testimony of D. Randy Long at 22.

(b) CLECs' Position

The Coalition argues that all traffic originated by the customer of a carrier that is delivered by a terminating carrier pursuant to the calling party's request should be subject to reciprocal compensation.[42] The Coalition asserts that the Commission should re-affirm its precedent treating calls to ISPs as local calls subject to reciprocal compensation in accordance with FTA § 251(b)(5). In view of the D.C. Circuit court of appeals' criticism of the FCC's use of an end-to-end analysis to conclude that ISP-bound traffic is interstate in nature,[43] the Coalition posits that it is unlikely that the FCC, on remand, will develop a convincing analogy between ISP-bound traffic and long-distance traffic on remand to justify its declaratory ruling.[44] Even absent the federal appellate court's remand, the Coalition argues that the segregation of ISP traffic for reciprocal compensation purposes is not justified by any cost differences between ISP-bound traffic and other local traffic, given that the two types of calls use the public switched telephone network in identical ways.[45] Furthermore, the Coalition contends that there is no cost basis for any such differentiation because the cost driver for both types of calls is the same.[46]

The Coalition also asserts that the Commission should reject SWBT's effort to parse out different forms of terminating arrangements for serving ISPs by exempting certain arrangements such as "virtual FX" and "Internet Gateways" from reciprocal compensation. First, the Coalition argues that SWBT's effort to carve out such exemptions is unfounded, both as a matter of technology and as a matter of economic policy.[47] With respect to the so-called Internet Gateway issue, the Coalition contends that the Commission's determination of when reciprocal

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[42] Coalition Ex. No. ICG-3, Direct Testimony of Don J. Wood at 7.

[43] *Bell Atlantic Telephone Companies v. Federal Communications Commission*, 206 F.3rd 1 (D.C. Cir. 2000).

[44] Coalition Ex. No. ICG-4, Rebuttal Testimony of Don J. Wood at 4-10.

[45] Coalition Ex. No. ICG-3, Direct Testimony of Don J. Wood at 7.

[46] Coalition Ex. No. ICG-3, Direct Testimony of Don J. Wood at 7; Coalition's Initial Brief at 15-16 (April 19, 2000).

compensation is due should be technology-neutral. The Coalition believes given the rapid development of new technologies and the consumer demand for Internet access, the Commission should not take any action that would have the effect of dictating how a carrier deploys new technology or designs its networks to serve its customers.[48]

Second, with respect to the so-called virtual FX issue, the Coalition contends that the CLEC service described by SWBT is also provided by SWBT in essentially the same manner. The Coalition believes that any exemption afforded a CLEC's virtual FX traffic would result in discrimination against CLECs and provide a competitive advantage to SWBT's own similar offerings.[49]

AT&T avers that the most efficient and effective approach to addressing the reciprocal compensation issue is to adopt a cost-based rate structure covering all traffic exchanged between AT&T and SWBT which originates and terminates within the same LATA.[50] AT&T states that the one exception to its proposal is AT&T's Feature Group D access traffic, which is generated via its long-distance network.[51] Furthermore, AT&T agrees with the Coalition that ISP-bound traffic is local traffic, possessing all the cost and technical characteristics of a local call.[52] AT&T argues that a CLEC should be compensated for any costs that it incurs in terminating a call from a SWBT customer because SWBT avoids having to incur those costs.[53]

With regards to 8YY traffic, AT&T asserts that an 8YY call that originates on one carrier's network and terminates on another's network without the need for any interexchange

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[47] Coalition Ex. No. CLEC-1, Direct Testimony of William Page Montgomery at 23-24.

[48] Allegiance Ex. No. 1, Direct Testimony of Richard Anderson at 2.

[49] Coalition Ex. No. CLEC-2, Rebuttal Testimony of William Page Montgomery at 37-39.

[50] AT&T Initial Post-Hearing Brief at 5 (April 19, 2000).

[51] AT&T Ex. No. 5, Direct Testimony of Maureen A. Swift at 12.

[52] AT&T Initial Post-Hearing Brief at 11 (April 19, 2000).

[53] *Id.* at 12.

carrier (IXC) transport is carried on local interconnection trunks and, therefore, is subject to reciprocal compensation.[54] AT&T further argues that virtual FX traffic and Internet Gateway traffic should not be treated differently from other local traffic. It states that there are no underlying routing or geographic characteristics that uniquely distinguish such traffic from other types of local calls. AT&T observes that, depending upon the physical boundaries of a customer's pre-defined local calling area, a local call may well traverse more central offices and route miles than a given toll call.[55] Moreover, AT&T contends that SWBT's position regarding Internet Gateway traffic would discriminate based on a CLEC's technology and network architecture and would be anti-competitive.[56]

(c) Commission Decision

The Commission is again not persuaded by SWBT's argument that it should treat ISP-bound traffic differently for purposes of reciprocal compensation. The Commission has previously concluded that ISP-bound traffic is local in nature and reaffirms that such traffic is eligible for reciprocal compensation in this proceeding. Its prior rulings remain viable from technological, policy, and legal standpoints, and they are now supported by the federal appellate court decisions in Southwestern Bell Telephone Co. v. Public Utility Commission of Texas and Bell Atlantic Telephone Companies v. Federal Communications Commission. Moreover, designating ISP-bound traffic as local traffic is not inconsistent with any action taken by the FCC on the matter. Additionally, taking into account the possibility that the designation of ISP-bound traffic as local traffic may be subject to a successful future challenge at the FCC and/or in the courts, the Commission also finds that it is reasonable to compensate such traffic in the same manner as local traffic, for reasons that are the same or similar to those relied upon in concluding that ISP-bound traffic constitutes local traffic. Finally, the Commission concludes

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[54] AT&T Ex. No. 5, Direct Testimony of Maureen A. Swift at Direct at 12.

[55] AT&T Ex. No. 4, Rebuttal Testimony of Patricia D. Kravtin at 20.

[56] *Id.*

that there are no compelling policy reasons for establishing a reciprocal compensation mechanism that would require the separation and/or measurement of ISP-bound traffic.

The Commission also reaffirms its previous determination that reciprocal compensation arrangements apply to calls that originate from and terminate to an end-user within a mandatory single or multi-exchange local calling area, including the mandatory EAS/ELCS areas comprised of SWBT exchanges and the mandatory EAS/ELCS areas comprised of SWBT exchanges and exchanges of independent ILECs.[57] *Consistent with this precedent, optional EAS traffic is not subject to reciprocal compensation.*[58] *The Commission also finds that to the extent that FX-type and 8YY traffic do not terminate within a mandatory local calling scope, they are not eligible for reciprocal compensation.*[59] *The Commission reiterates that this Award does not preclude CLECs from establishing their own local calling areas or prices for purpose of retail telephone service offerings.*[60]

Finally, the Commission agrees with SWBT that transit traffic should not be eligible for reciprocal compensation. The Commission addresses transit traffic in its discussion of DPL Issue No. 4.

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[57] *See* First Mega-Arbitration Award at ¶58; Project No. 16251, Order No. 55, Attachment 12 at ¶ 1.1. *See also* Evaluation of the Public Utility Commission of Texas, *In the Matter of Application of SBC Communications Inc., and Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. D/B/A/ Southwestern Bell Long Distance for Provision of In-Region, InterLATA Services in Texas Pursuant to Section 271 of the Telecommunications Act of 1996 To Provide In- Region*, CC Docket No. 00-4, at 88 (Jan. 31, 2000); Project No. 16251, Final Staff Report on Collaborative Process at 103-104 (Nov. 18, 1998).

[58] *See* First Mega-Arbitration Award at ¶59.

[59] These findings with regard to optional EAS and FX-type traffic do not preclude the parties affected by this Award from negotiating and/or arbitrating appropriate compensation related to such traffic in other proceedings in which interconnection agreements are being addressed. This Award, which focuses upon inter-carrier compensation for local traffic only, does not intend to place compensation-related issues for optional EAS and FX-type traffic in a regulatory "no man's land".

[60] *See* First Mega-Arbitration Award at ¶59.

B. DPL ISSUE NO. 2: WHAT METHOD SHOULD BE USED TO DETERMINE INTER-CARRIER COMPENSATION?

The parties' positions regarding DPL Issue No. 2 are separated into three areas: the rate symmetry issue, the tandem issue, and the rate structure issue.

1. Rate Symmetry Issue

(a) CLECs' Position

The Coalition states that inter-carrier compensation rates must be symmetrical.[61] AT&T proposes symmetric reciprocal compensation on a LATA-wide basis.[62] Based on its own cost study, Taylor Comm. proposes asymmetric rates that are almost twice those approved for SWBT in the Mega-Arbitration proceedings.

(b) SWBT's Position

SWBT argues that inter-carrier compensation rates should be set symmetrically at the total element long-run incremental cost (TELRIC) of a fully efficient competitor.[63] SWBT avers that there should be a single TELRIC study to measure the forward-looking economic cost of an efficient firm.[64] SWBT also asserts that there are efficiency consequences of establishing a rate based on costs higher than those of the low-cost provider because when the high-cost provider remains in the market, resources are wasted.[65]

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[61] Coalition's Initial Brief at 34 (April 19, 2000).

[62] AT&T Initial Brief at 5 (April 19, 2000).

[63] SWBT Ex. No. 14, Direct Testimony of William Taylor at 5.

[64] *Id.* at 22.

[65] *Id.* at 5.

(c) Commission Decision

Parties brought two versions of asymmetric rates before the Commission. The first, as proposed by Taylor Comm., involves asymmetric rates between carriers. The second is implicit in SWBT's proposal to segregate ISP-bound traffic from voice traffic.

The Commission adopts the recommendation put forth by the CLEC Coalition for symmetric rates across carriers. The Commission finds that symmetric rates place the interconnected parties, ILEC and CLEC alike, in a position of parity. The Commission further recognizes that symmetrical rates derived from one source--here, the rates set in the Mega-Arbitrations-- are administratively easier to manage than asymmetric rates based on carriers' individual costs. (See additional rationale for rejecting Taylor Comm.'s asymmetric rate proposal under DPL Issue No. 3.)

Furthermore, the Commission rejects the adoption of different inter-carrier compensation for voice and ISP-bound traffic. At present, the Commission is not persuaded that the methodologies used by SWBT to identify and segregate voice traffic from ISP-bound traffic are reliable or consistent. In reaching this conclusion, the Commission recognizes that voice traffic varies both in call duration and distance, and that any attempt to segregate voice and ISP traffic for the purposes of assessing asymmetric rates would be problematic, at best. Moreover, the Commission does not accept minutes-of-use (MOU), number tracking, or billing records as accurate discriminators of voice and ISP-bound traffic.

2. Tandem Issue

A hotly contested issue in this proceeding involved the compensation due to carriers using multiple-function switches capable of performing end-office and tandem functions. Specifically, the issue involves the extent to which such carriers are entitled to the tandem-switching rate approved in the Mega-Arbitrations.

The FCC's Local Competition Order dedicates two paragraphs to this so-called "tandem issue."[66] In its discussion, the FCC found that telecommunications carriers can incur additional costs when calls are terminated through a tandem switch. The FCC concluded that states may establish transport and termination rates that vary according to whether the traffic is routed through a tandem switch or directly to the end-office. In setting such rates, the FCC indicated that states must also consider whether new technologies perform functions similar to those performed by an ILEC's tandem switch and whether some or all calls terminating on the new entrants' network should be priced the same as the sum of transport and termination via the ILEC's tandem switch. The FCC also concluded that where the interconnecting carrier's switch serves a geographic area comparable to that of the ILEC's tandem switch, the appropriate proxy for the additional costs incurred is the ILEC's tandem interconnection rate. Similarly, the resulting FCC rule, 47 C.F.R. 51.711(a)(3), states that when the interconnecting carrier's switch "serves a geographic area comparable to the area" served by the ILEC's switch, the appropriate rate for the interconnecting carrier is the ILEC's tandem interconnection rate.

In addressing the tandem issue, the parties devoted considerable effort discussing the New York Public Service Commission (NYPSC) decision concerning reciprocal compensation (NYPSC Order).[67] The NYPSC's inquiry into reciprocal compensation grew out of the unanticipated development of the substantial imbalance in traffic flows and revenue streams between ILECs and some CLECs with a preponderance of customers, such as ISPs, that receive far more calls than they originate.[68] The NYPSC order refers to such traffic as "convergent". The NYPSC order determined that once the ratio of incoming to outgoing traffic reaches 3:1, the inference of predominantly convergent traffic becomes stronger and implies greater efficiency and lower costs in the termination of traffic. The NYPSC order indicates that the inference of

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[66] *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996,* CC Docket No. 96-98 at ¶¶1090-1091 (Aug. 8, 1996) (Local Competition Order).

[67] *Proceeding on Motion of the Commission to Reexamine Reciprocal Compensation, Opinion and Order Concerning Reciprocal Compensation,* State of New York Public Service Commission Opinion and Order Concerning Reciprocal Compensation, Opinion No. 99-10, Case 99-C-0529 (Aug. 26, 1999) (NYPSC Order).

[68] *Id.* at 1.

lower costs cannot be disregarded if compensation is to be cost-based, but is not conclusive enough to have a definitive effect on rates. Consequently, the NYPSC concluded, in part, that the inference of lower costs could be addressed by a rebuttable presumption allowing a CLEC to show that its network and service are such as to warrant tandem rate compensation for all traffic.[69]

In this regard, the NYPSC developed a rate structure using a 3:1 ratio of incoming to outgoing traffic as the point after which end-office rates alone would apply. The NYPSC allowed CLECs wishing to collect the tandem rate for traffic above the 3:1 ratio, however, to rebut the presumption that traffic above the ratio costs less to serve by showing that its network and service warrant tandem-rate compensation for all traffic. The NYPSC identified several network design factors that may be used to make such a showing:

- The number and capacity of central office switches;
- The number of points of interconnection offered to other local exchange carriers;
- The number of collocation cages;
- The presence of SONET rings and other types of transport facilities; and
- The presence of local distribution facilities such as coaxial cable and/or unbundled loops.

The NYPSC stated that the presence of some or all of these network components in substantial quantities would demonstrate that the carrier in question was investing in a network with tandem-like functionality, designed to both send and receive customer traffic.[70]

(a) SWBT's Position

SWBT cautions the Commission that customer dispersion should be a consideration when comparing CLEC and ILEC service areas. SWBT witness Mr. Jayroe states that when SWBT serves a wide area but a CLEC serves only a dense downtown area to the exclusion of

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[69] *Id.* at 59.

[70] *Id.* 60-61.

customers dispersed throughout SWBT's area, the CLEC fails the geographic area comparability test.[71] SWBT witness Mr. Wynn contends that if a CLEC serves a comparable geographic area and incurs additional costs, then it may qualify for the tandem served rate. But given that 92% of traffic are not using a fiber ring but instead using a loop facility, the equivalent of a line facility, there are no additional costs incurred; just as CLECs are serving an end customer.[72] SWBT deduces that since CLECs have nearly 92% of their traffic go to ISPs, their network must be designed to maximize that revenue instead of designed efficiently to serve voice traffic.[73] SWBT reports that Taylor states that almost 80% of its ISP customers are collocated and 73% of Allegiance's ISP customers are collocated.[74]

SWBT urges the Commission to adopt a functionality test in addition to the FCC's comparability standard. SWBT observes that there are functional differences between a tandem office switch and an end office switch. A tandem office connects end offices to other end offices, other ILECs, and interexchange carriers, while an end office connects to end-users. Moreover, according to SWBT, a tandem office does not need to record user billing information, supply electric power to the equipment at the end of the line, or convert between analog and digital signals.[75] Given this difference in functionality, the tandem rate paid by an originating carrier to the terminating carrier is in addition to the end–office rate.

SWBT attests that a CLEC can bypass paying SWBT the tandem rate because SWBT gives all carriers the option to interconnect at either a tandem office switch, end office switch, or both. [76] SWBT calculated that approximately 58% of all CLEC trunks interconnected to SWBT

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[71] Tr. at 484 and 485 (May 5, 2000).

[72] Tr. at 523, 524 (May 5, 2000).

[73] Tr. at 556 (May 5, 2000).

[74] SWBT Ex. No. 16, Direct Testimony of Ed Wynn at 8.

[75] SWBT Ex. No. 5, Direct Testimony of Robert Jayroe at 13.

are interconnected to end offices.[77] SWBT requests that CLECs provide it the same choices for interconnection so that it can control its own costs by bypassing the tandem rates. SWBT contends that such choice is not possible from most CLECs, which generally operate switches that perform both tandem and end office functions.

As an initial step, SWBT proposed that the Commission conduct a needs-based test ascertaining whether the revenues CLECs receive from ISPs recover their appropriate costs.[78] SWBT also proposed various functionality tests: a "parity of function" test[79]; a facility-based reasonableness test based on a CLEC's incurrence of additional costs[80]; a test addressing whether a CLEC offers SWBT the choice of delivering traffic at a point designated as the CLEC's tandem or at a point designated as the CLEC's end office[81]; and a test requiring proof that the CLEC's network architecture is designed for the mutual exchange of local voice traffic and that the switch is serving end users in a geographic area comparable to a SWBT tandem.[82]

SWBT admits that it also operates switches that perform both a tandem and end office functions, but claims that the two functions are separated in a manner that the tandem portion of the switch carries only trunk-to-trunk traffic.[83] SWBT witness Mr. Jayroe states that while SWBT may perform its tandem switching and end office switching functions in the same building, it does not collocate with end customers. SWBT avers that function rather than

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[76] ICG witness Mr. Starkey confirmed that CLECs have the option to interconnect with SWBT at both tandem and end office level, and acknowledged that SWBT does not have that same option. *See* Tr. at 543-544 (May 5, 2000).

[77] SWBT Ex. No. 5, Direct Testimony of Robert Jayroe at 14-16.

[78] SWBT Ex. No. 16, Direct Testimony of Ed Wynn at 23.

[79] SWBT Ex. No. 5, Direct Testimony of Robert Jayroe at 14 and 15.

[80] Tr. at 472, 473, 494 (May 5, 2000).

[81] SWBT Position Statement at 2 (May 16, 2000).

[82] *Id.* at 3.

[83] SWBT Ex. No. 5, Direct Testimony of Robert Jayroe, at 14.

location is relevant; even if the called customer is located across the street from the tandem switch, a tandem function and an end office function could still be performed for that call.[84]

While asserting that the tandem rate should never apply to ISP-bound traffic,[85] SWBT generally agrees that all of the factors noted by the NYPSC have at least some value as indicia of tandem functionality vis-à-vis non-ISP-bound traffic. SWBT singles out one of the factors as far more significant than the others: the number of points of interconnection offered to other local exchange carriers.[86]

Finally, SWBT proposes a streamlined standard for determining CLEC tandem functionality that does not involve any Commission activity.[87] As an alternative, SWBT proposes an expedited 45-day qualification procedure involving affidavits and certification by the Commission.[88]

(b) CLECs' Position

ICG believes that the reciprocal compensation rate paid by the originating carrier should be based on the *capability* that the terminating carrier's network provides, rather than the latter's network design and arrangement.[89] ICG witness Mr. Starkey further avers that CLEC switches only need to be capable of serving a comparable area, but need not actually serve a comparable area in order for a particular reciprocal compensation to apply.[90] ICG asserts that this capability should be measured by geographic service area because the networks of most CLECs are built to

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[84] Tr. at 474-475 (May 5, 2000).

[85] SWBT Position Statement at 2 (May 16, 2000).

[86] *Id.*

[87] *Id.* at 3.

[88] *Id.*

[89] Coalition Ex. No. ICG-3, Direct Testimony of Don Wood at 28.

[90] Tr. at 444 (May 5, 2000).

take advantage of the decreasing costs of transport relative to switching facilities and to efficiently implement new switching technologies. ICG asserts that a reciprocal compensation mechanism that focuses on the underlying equipment used, rather than functionality provided, would penalize network designs that are more efficient than their competitor.[91] Additionally, ICG witness Mr. Wood avers that CLECs connect to SWBT end offices to avoid SWBT's high blocking rate,[92] rather than to avoid paying the tandem rate.

The Coalition maintains that, to recognize the development of various CLEC network architectures, the Commission should not look beyond the area comparability test.[93] The Coalition believes that functionality tests are ultimately circular. Coalition witness Mr. Montgomery maintains that it is difficult for a regulator to develop or apply a functionality test in any non-discriminatory fashion because it is difficult to take into account individual CLECs' characteristics in formulating a general rule that is viable. Mr. Montgomery asserts that an area comparability test, on the other hand, is much clearer than any functionality test.[94]

The Coalition also criticizes SWBT's proposal of requiring CLECs to establish multiple points of interconnection, asserting that it is unworkable from a network perspective.[95] The Coalition asserts that implementation of such a proposal would require a wasteful re-engineering of CLEC's networks because additional points of interconnection to the same switch would waste ports and switching capacity on the CLEC network.[96]

Coalition witness Mr. Wood contends that the NYPSC's factors related to network design should not be applied by the Commission in this docket because they fail to identify the relevant

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[91] Coalition Ex. No. ICG-3, Direct Testimony of Don Wood at 28.

[92] Tr. at 546 (May 5, 2000).

[93] Coalition Ex. No. CLEC-1, Direct Testimony of William Page Montgomery at 35, 36.

[94] *Id.* at 36-38.

[95] Coalition's Reply Brief on Issues Identified by the Commission at 2 (June 1, 2000).

[96] *See generally* Coalition's Reply Brief on Issues Identified by the Commission at 3 (June 1, 2000).

functionality provided by a CLEC network.[97] He contends that regardless of the number of switches, as long as a CLEC can terminate traffic over an ILEC tandem serving area through one point of interconnection, then the CLEC is providing tandem functionality.[98] Mr. Wood also argues that numerous collocation arrangements do not necessarily indicate tandem functionality because they may not enable an ILEC to deliver its traffic to a comparable geographic area through a given point of interconnection. Indeed, he states that a CLEC with fewer collocation arrangements may be able to provide tandem functionality.[99] Furthermore, Mr. Wood contends that SONET rings and local distribution facilities may not be necessary to provide tandem functionality, given that a CLEC may choose to use wireless distribution facilities.[100]

The Coalition submits that the record in this docket is sufficient for the Commission to order application of the tandem served rate in this proceeding, arguing that it would be a waste of resources to re-create a record in additional proceedings to further address this matter.[101] The Coalition also offers a process for Commission determinations of CLEC eligibility for the tandem rate.[102]

WCOM notes that FCC's Local Competition Order makes no mention of requiring the same capacity or the performance of similar functions in order for the tandem rate to apply.[103] Therefore, WCOM concludes that geographic area comparability is the only test to use in making such a determination. WCOM also notes that since SWBT's Project Pronto will move SWBT's network away from the traditional hub-and-spoke architecture to architecture

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[97] Coalition Ex. No. 41, Supplemental Testimony of Don J. Wood at 9.

[98] *Id.*

[99] *Id.* at 11.

[100] *Id.*

[101] Coalition Statement of Position at 1 (June 16, 2000).

[102] *Id.* at 2.

[103] WCOM Ex. No. 1, Direct Testimony of Don Price at 30-32.

employing more fiber rings. CLECs' non-traditional architecture should be recognized as an innovation to be encouraged rather than penalized. Furthermore, WCOM witness Mr. Price states that the kind of hierarchy that exists in a typical ILEC's architecture is not duplicated in a CLEC's network.[104] WCOM also submits that numerous point of interconnection should not be a requirement for a CLEC to meet the geographic comparability test.[105] WCOM urges the Commission to reject SWBT's proposal to establish rules requiring any migration from tandem to end office trunks.[106]

e.spire witness Mr. Falvey argues that, due to carriers' different architecture arrangements, the FCC has clearly found that a switch architecture analysis, which partitions a CLEC switch into an end office switch and a tandem office switch, is irrelevant for purposes of determining when the CLEC qualifies for a tandem rate.[107]

Intermedia witness Mr. Jackson states that many ILECs require CLECs to route traffic directly to end offices after a certain level of traffic has occurred. But, he observes, overflow traffic from end office trunks can be directed to a tandem switch, if the ILEC chooses to do so. Consequently, Mr. Jackson does not view the overflow of traffic to a SWBT tandem switch as a "privilege" to connect to the tandem switch. Rather, Mr. Jackson views such a situation as a failure of SWBT to provide sufficient information to allow CLECs to set up more direct end office trunking.[108]

AT&T witness Mr. Zubkus posits that the only relevant consideration in determining if the tandem rate applies is whether the CLEC's switch is capable of serving the ILEC's tandem area.[109] AT&T also submits that none of the factors outlined by the NYPSC contain a bright-line

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[104] Tr. at 492 (May 5, 2000).

[105] SWBT's Supplemental Brief on the "Blended Rate" Issue at 6 (May 26, 2000).

[106] WCOM's Brief on Issues Raised in the May 18th Hearing at 2 (May 26, 2000).

[107] Tr. at 492 (May 5, 2000).

[108] Tr. at 549, 550 (May 5, 2000).

threshold for rebutting the presumption that the tandem rate is not due.[110] Furthermore, AT&T argues that those factors appear to be ILEC-centric. For example, the number of points of interconnection offered to other exchange carriers "suggests a tendency to look at requiring CLECs to mirror the ILEC's tandem/end office architecture."[111] AT&T believes that it is entitled to the full tandem rate and observes that the standard for qualification of tandem interconnection rate is "the Commission will know it when they see it."[112] AT&T believes that it is entitled to the tandem switching element because its switches provide the functionality and geographic scope of SWBT's tandems.[113]

*(c) **Commission Decision***

In interpreting the FCC rule, 47 C.F.R. 51.711(a)(3), the Commission must give meaning to the underlying language in the FCC's Local Competition Order (¶1090, 1091)). In that seminal order, the FCC directed state commissions to consider whether the technology employed by the CLEC is performing tandem or tandem-like functions similar to those performed by the ILEC's tandem switch in determining whether "some or all calls" terminating on the CLEC's network should be priced the same as the traffic terminated by the ILEC's tandem switch. Given the FCC's discussion in the Local Competition Order, the Commission concludes that a terminating carrier shall be compensated for any "additional costs" incurred only when it actually uses tandem or tandem-like functions to terminate traffic in a geographic area comparable to the area served by the ILEC's tandem switch.

The Commission disagrees with the CLECs' assertion that the FCC rule requires only a showing that the terminating carrier's switch has the capability of serving the same or

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[109] Tr. at 439, 442 (May 5, 2000).

[110] AT&T Ex. No. 12, Direct Testimony of Javier Rodriguez at 8.

[111] Coalition Ex. No. 41, Supplemental Testimony of Don J. Wood at 8.

[112] AT&T's Supplemental Brief on Tandem Issue at 12 - 13 (May 26, 2000).

[113] AT&T Ex. No. 7, Direct Testimony of Jon A. Zubkus at 7.

comparable geographic area as the ILEC's tandem switch. It reads the FCC rule to require something more than a simple comparison of maps of areas served by the interconnecting carrier's switch and the ILEC's tandem switch. In specifying how the interconnecting carrier should be compensated, the rule refers to a CLEC switch serving a geographic area comparable to the area served by the ILEC's tandem switch. The Commission interprets this language to require the CLEC's facilities to actually perform actual tandem or tandem-like functions similar to those performed by the ILEC's facilities before the CLEC is entitled to compensation based on the ILEC's tandem switching costs. To interpret the rule otherwise would contravene the general requirement of symmetrical rates for the transport and termination of local communications traffic in 47 C.F.R. 51.711(a).

3. Rate Structure

Throughout the proceeding, parties discussed various options for reciprocal compensation, ranging from the adoption of bill-and-keep, rate caps, the Mega-Arbitration rate structure, and a staff proposal.

(a) Staff Proposal

Commission Staff proposes the adoption of a "tandem blended rate" employing the following rate structure: end office rate + (tandem rate x % SWBT tandems used) + (transport x % SWBT tandems used). In the proposal, the resulting rate would apply to all traffic up to a specified cap.[114]

(b) CLECs' Position

WCOM emphasizes that the relevant components of the Mega-Arbitration rate structure for inter-carrier compensation include end office switching, tandem switching and interoffice common transport.[115] To the extent that the Commission considers a ratio or a blended rate,

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[114] *See* Order Nos. 8 and 9 (May 19 and 22, 2000).

[115] WCOM Ex. No. 1, Direct Testimony of Don Price at 4.

WCOM's prefers a blended rate that rewards CLECs that utilize a high percentage of direct end office trunking.[116]

Taylor Comm. proposes asymmetric per minute rates between carriers. It proposes to pay SWBT at SWBT's cost, while SWBT would pay Taylor Comm. at Taylor Comm.'s cost.[117] Under Taylor Comm.'s proposal, SWBT would pay Taylor Comm. rates in excess of what Taylor Comm. would pay SWBT. Additionally, Taylor Comm. equates bill-and-keep to a very efficient bartering arrangement that makes sense only when traffic is in balance between the two carriers. Taylor Comm. argues that if traffic is not in balance, however, one carrier performs all the work and the other carrier gets a free ride if a bill-and-keep compensation scheme is adopted.[118]

The Coalition maintains that the Commission should adopt the existing Mega-Arbitration rate structure.[119] Coalition witness Mr. Montgomery explains that the bill-and-keep method was historically an informal process used typically between a larger ILEC and a smaller ILEC in a monopoly environment. Mr. Montgomery stresses that LECs agreed to such arrangements when they exclusively served service areas and did not compete with each other. He contends that today, in a competitive environment, there is a need for an arm's-length mechanism by which carriers compensate each other for the termination of calls.[120]

The Coalition further states that "[it] does not quarrel with certain of the intended results of the tandem blended rate approach."[121] The Coalition acknowledges that the tandem blended rate is simple to administer and may eliminate many disputes, and also recognizes that such a

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[116] WCOM's Brief on Issues Raised in the May 18th Hearing, at 2 (May 26, 2000).

[117] *See generally* Taylor Comm. Ex. No. 1, Direct Testimony of August H. Ankum and Taylor Comm. Ex. No. 5, Supplemental Testimony of Dr. August Ankum.

[118] Tr. at 167 (April 4, 2000).

[119] Coalition Ex. No. CLEC-1, Direct Testimony of William Page Montgomery at 25.

[120] Tr. at 154-155 (April 4, 2000).

[121] Coalition's Brief on Issues Identified by the Commission at 6 (May 26, 2000).

rate recognizes the CLECs' legal right to receive compensation for tandem switching and transport costs. The Coalition also appreciates that the proposal requires that symmetric rates be based on ILEC costs. The Coalition "strongly objects", however, to the proposal, due to the elements in its rate formula and the consequences of its implementation.[122] It indicates that the level of CLEC direct trunking to SWBT end offices is not a meaningful proxy by which to reduce SWBT's or a CLEC's rates for terminating another carrier's traffic. The Coalition further argues that the formula mistakenly assumes that less use of a tandem by a CLEC equals less tandem functionality. Moreover, it contends that the proposed tandem blended rate's use of a specific percentage is flawed because the use of tandem versus direct end-office switching is constantly changing.[123] Finally, the Coalition avers that the proposed tandem blended rate will either under- or over-compensate most CLECs most of the time.

The Coalition also strongly urges the Commission to avoid imposing separate rates for individual CLECs.[124] The Coalition proposes a default rate, that is, the end office switching rate plus the tandem-switching rate, without the transport rate. Nevertheless, under the Coalition's proposal, a CLEC is still given a choice to receive compensation for transport if it demonstrates that it terminates traffic beyond the footprint of an ILEC's end office.[125]

Allegiance states that it is not opposed to the concept of a tandem blended rate as long as it is applied symmetrically, to all local traffic and without any ratio or cap. Allegiance further states that such a blended rate would facilitate billing and avoid disputes over eligibility for the tandem rate.[126] Finally, Allegiance contends that the imposition of the tandem blended rate will not encourage or require CLECs to build inefficient networks, given that many of the first

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[122] SWBT's Supplemental Brief on the "Blended Rate" Issue at 6 (May 26, 2000).

[123] *Id.* at 7.

[124] *Id.* at 8.

[125] *Id.* at 11.

[126] Allegiance Post 5-18-2000 Hearing Brief, at 4 (May 26, 2000).

generation of interconnection agreements provide for use of blended reciprocal compensation rates.[127]

AT&T proposes symmetric rates for reciprocal compensation on a LATA-wide basis.[128] Under this LATA-wide proposal, in instances in which AT&T purchases UNEs from SWBT, AT&T proposes the use of a bill-and-keep compensation scheme.[129] In support of its proposal, AT&T concludes that nothing in the FTA prohibits a state from expanding the definition of "local traffic" beyond "mandatory EAS" for the purposes of § 251(b)(5).[130] AT&T states that there are 'laudable" aspects of Staff's tandem blended rate proposal, but the problems with the proposal far outweigh its potential benefits.[131] AT&T contends that the proposed tandem blended rate will improperly encourage network deployment based on reciprocal compensation.[132] Because it seeks to configure a network architecture to interconnect only at SWBT tandems, AT&T avers that the tandem blended rate would be grossly unfair to it, given that other CLECs may choose to interconnect more often at SWBT end offices.[133]

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[127] *Id.* at 6.

[128] *See* AT&T Ex. No. 5, Direct Testimony of Maureen A. Swift at 4; AT&T Initial Post-Hearing Brief at 5 (April 19, 2000). In its pending arbitration proceeding with SWBT, Docket No. 22315, AT&T has proposed an interconnection architecture in which AT&T is responsible for delivering traffic to SWBT's tandems and SWBT is responsible for delivering traffic to AT&T's own switches. If this interconnection architecture is not adopted, then AT&T will pay SWBT according to levels of switching offices connected, while SWBT will pay AT&T the three-part tandem rate. *Petition of Southwestern Bell Telephone Company for Arbitration with AT&T Communications of Texas, L.P., TCG Dallas, and Teleport Communications, Inc. Pursuant to Section 252(B)(1) of the Federal Telecommunications Act of 1996,* Docket No. 22315 (pending).

[129] AT&T Ex. No. 5, Direct Testimony of Maureen A. Swift at 10.

[130] *Id.* at 9.

[131] AT&T's Supplemental Brief on Tandem Issues at 4, 5 (May 26, 2000).

[132] *Id.* at 5.

[133] *Id.* at 6.

(c) SWBT's Position

SWBT suggests two methods for minimizing what it characterizes as the CLECs' over-recovery of compensation related to the termination of ISP-bound traffic: (1) a cap on the total amount of inter-carrier compensation that a CLEC receives for terminating ISP-bound traffic, which limits the amount of such compensation to two times the amount of compensation the CLEC pays to the ILEC, or (2) the use of a proxy for the appropriate costs incurred by CLECs in providing services to ISPs.[134]

Anticipating that CLECs may allege that it is difficult to track voice versus ISP-bound traffic, SWBT proposes that the existing TELRIC-based reciprocal compensation rate would apply to traffic that is relatively in balance between SWBT and the CLEC. More specifically, SWBT states that these rates will apply for traffic that is in balance at a 2:1 terminating-to-originating ratio between SWBT and a CLEC.[135] Under this proposal, if traffic "exceeds" this 2:1 ratio, SWBT indicates that it is appropriate to presume that the excess is ISP-bound traffic. Despite this presumption, however, SWBT concedes that CLECs would be given the opportunity to prove that the traffic in excess of this 2:1 ratio is voice traffic and subject to compensation using existing TELRIC-based rates.[136] With regard to traffic in excess of the 2:1 ratio that the CLEC does not demonstrate to be voice traffic, SWBT asserts that only the tandem switching rate should apply to the termination of such traffic.[137] SWBT declines to characterize its proposal as effectively akin to a bill-and-keep methodology, stating that ISP-bound traffic has a different compensation scheme due to the FCC's ISP exemption relating to access.[138]

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[134] SWBT Ex. No. 16, Direct Testimony of Ed Wynn at 26.

[135] *Id.* at 27.

[136] SWBT substantiates this 2:1 ratio by a traffic study, which spans from 1997 to 1999. During this time period, SWBT terminated 1.5 billion local non-ISP minutes of use (MOUs) to the CLECs participating in this proceeding, while these same CLECs terminated to SWBT 1.2 billion MOUs. Based on this data, SWBT claims that the balance of traffic that is truly local would be 1.32:1. SWBT recommends using this ratio as a surrogate for distinguishing ISP traffic. *See* SWBT Ex. No. 16, Direct Testimony of Ed Wynn at 27.

[137] *Id.* at 28.

SWBT states that it does not have significant objections to the use of Staff's tandem blended rate in certain contexts, provided that concrete trunking rules are also adopted to ensure that CLECs move traffic from SWBT's tandem trunks to direct end office trunks when specific traffic volume limits are exceeded.[139] SWBT emphasizes that if the Commission adopts a tandem blended rate, then it should clarify that CLECs are limited as to the volume of traffic they may deliver to SWBT's tandem before being required to establish direct trunking to end offices.[140] Regarding the imposition of a cap, SWBT states that "a two to one ratio would work; a three to one would also be within the permissible."[141] However, SWBT states that any over-compensation "could be mitigated by setting an absolute cap at a two-to-one, rather than a three-to-one, imbalance.[142] SWBT states that, due to the administrative ease in using such a tandem blended rate, it could have significant advantage over any multi-factor functional test such as that adopted by the NYPSC.[143]

SWBT rejects the Coalition's "compromise" proposal, arguing that it will over compensate for ISP-bound traffic, violates federal law, and is administratively burdensome.[144] Also, SWBT maintains that AT&T's LATA-wide proposal goes beyond what is allowed under state and federal law.[145] SWBT believes that AT&T's LATA-wide proposal in effect reduces AT&T's costs of serving a concentrated base of business customers and ISPs without also serving geographically dispersed residential customers.[146] SWBT further contends that AT&T's proposal cannot possibly be cost-based if it sets the same rate for local, toll, and access traffic

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[138] Tr. at 102-106 (April 4, 2000).

[139] SWBT's Supplemental Brief on the "Blended Rate" Issue at 3 (May 26, 2000).

[140] *Id.* at 4.

[141] Tr. at 619 (May 18, 2000).

[142] SWBT's Supplemental Reply Brief on the "Blended Rate" Issue at 6 (June 1, 2000).

[143] SWBT's Supplemental Brief on the "Blended Rate" Issue at 5-6 (May 26, 2000).

[144] SWBT's Supplemental Reply Brief On the "Blended Rate" Issue at 6-7 (June 1, 2000).

[145] SWBT Post-Hearing Brief at 38-39 (April 19, 2000).

[146] *Id.* at 39.

terminated within an entire LATA.[147] Because AT&T terminates less traffic than it originates, SWBT argues that AT&T would be over-compensated under its proposal, while at the same time avoiding payment of appropriate access charges related to interexchange traffic.[148]

(d) Commission Decision

As a policy matter, the Commission prefers the bill-and-keep method over any of the other compensation proposals reviewed in this proceeding. While the Commission hopes that the bill-and-keep method will become a viable option as the market matures, it nevertheless recognizes that current volumes of traffic between carriers do not support adoption of such a compensation scheme as a general rule at this time.

The Commission has long viewed the minute-is-a-minute approach as a goal by which to base compensation between carriers. AT&T's LATA-wide proposal, however, has implications for ILEC revenue streams, such as switched access, that have not been fully examined in this proceeding. Consequently, the Commission declines to adopt AT&T's LATA-wide proposal because it affects rates for other types of calls, such as intraLATA toll calls, that are beyond the scope of this proceeding.

With respect to a hierarchical or two-tier switch network, the Commission finds that the actual use of tandem switching facilities is easily discernible. If only an end office switch is employed to terminate traffic, then only the end-office rate shall apply. If a tandem switch is used for the termination of traffic, then the tandem rate shall apply. The issue of compensation is less straightforward, however, with respect to a network using multiple-function switches.

As stated earlier, the inter-carrier compensation rates approved in the Mega-Arbitrations, as reflected in Attachment A to this Award, form the basis of the inter-carrier

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[147] SWBT Ex. No. 8, Rebuttal Testimony of Randy Long at 17.

[148] *Id.* at 19.

compensation rates approved in this Award pursuant to FTA § 252(d)(2). A "new" rate adopted in this proceeding is the "blended tandem rate". This blended rate is necessary because the CLECs have failed to demonstrate that they are entitled to the full tandem rate for every call terminated by their networks employing multiple-function switches. Specifically, the CLECs have failed to evidence that every call terminated on their networks involves actual tandem or tandem-like functions, or that every such call needs such functions, for that matter.[149] *They have failed to demonstrate the termination of such traffic in a geographically dispersed area, as would occur had actual tandem or tandem-like functions been performed on every call. Rather, the evidence shows that some calls terminated by their multiple function switches use only end-office functions, while others also use tandem functions. Consequently, in determining "whether some or all calls terminating on the new entrant's network should be priced the same as the sum of the transport and termination via the incumbent LEC's tandem switch,"*[150] *the Commission concludes that only some of those calls merit such symmetrical compensation. To award CLECs the full tandem rate for every call, under these circumstances, would overcompensate them and effectively award them a higher rate for end-office switching than what SWBT receives, contrary to 47 C.F.R. 51.711(a). Furthermore, to do so would be inequitable and discriminatory.*

Therefore, to roughly achieve the rate symmetry mandated under federal law, the Commission looks to SWBT's hierarchical or two-tier network to calculate a blended rate that takes into account the multiple functions performed by the CLECs' switches with regard to calls terminated on their networks. As demonstrated by SWBT, approximately 58% of all CLEC trunks interconnected to SWBT are interconnected at the end-office switch level. Conversely, the remaining 42% are interconnected at SWBT's tandem switches. For these reasons, the "tandem blended rate" approved in this Award shall include a rate factor that corresponds to 42% of the sum of tandem switching and interoffice transport costs. This rate factor is a reasonable proxy of the percentage of traffic, in the aggregate, for which the CLECs' multiple-function switches employ tandem or tandem-like functions in terminating traffic on the CLECs' networks. In other

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[149] *See, e.g.*, SWBT Ex. 6, Rebuttal Testimony of Robert Jayroe at 5-6.

[150] Local Competition Order at ¶1090.

words, it reasonably presumes that a CLEC's network is actually performing tandem or tandem-like functions and incurring costs associated with those functions in roughly the same proportion as SWBT's network. The factored amount shall be added to the bifurcated end-office switching rate approved in this Award to arrive at the total "tandem blended rate".

Because 42% of the traffic terminated by the CLECs' multiple-function switches is presumed to involve tandem or tandem-like functionality and the geographic areas in which such functionality occurs are generally comparable to the areas served by SWBT's tandem switches, the tandem rate is justified for that percentage of traffic, pursuant to 47 C.F.R. 51.711(a)(3). The Commission further finds that the resulting tandem blended rate is reasonable and consistent with the FTA, given that the full tandem rate is not justified in every instance. In adopting the "tandem blended rate", the Commission does not seek to impose an ILEC's network configuration upon CLECs or to discourage a diverse interconnected network, but rather only to determine the appropriate compensation for the termination of local traffic.

The Commission also applauds the introduction and application of advanced technologies in the telecommunications market. The Commission finds, however, that the current means by which reciprocal compensation is accomplished has contributed to a significant imbalance of traffic between originating and terminating carriers. In other words, the current scheme has created perverse economic incentives that result in an imbalance in revenues between certain interconnected carriers, in favor of the termination carrier.

Like the NYPSC, the Commission concludes that the use of a threshold traffic ratio is an equitable device by which an originating carrier's costs can be lawfully mitigated and the efficient delivery of traffic maintained when the degree of traffic imbalance (and concomitantly, imbalanced compensation) indicates that certain compensation is no longer warranted. Therefore, for traffic subject to the "tandem blended rate", such a rate is appropriate up to a 3-1 (terminating traffic to originating traffic) threshold imbalance.[151] *When a carrier exceeds that 3-*

[151] The Commission notes that a carrier without any originating traffic cannot, as a practical matter, qualify for the tandem blended rate and will receive the bifurcated end office rate.

1 ratio threshold, it is reasonable to presume that predominately convergent traffic is occurring and the "excess" traffic should be compensated using the end-office switching rate only.

This presumption, however, is rebuttable. The terminating carrier may demonstrate actual tandem or tandem-like functionality in the delivery of this "excess" traffic using various network design factors that demonstrate the existence of a network serving an area comparable to the ILEC's geographic area with tandem or tandem-like functions, a network designed to both send and receive customer traffic for the purpose of serving a dispersed customer base. Merely evidencing a capability to serve a comparable geographic area will not rebut the presumption. The network design factors upon which a carrier may make its case include, but are not limited to:

1. *the number and capacity of central office switches;*
2. *the number of points of interconnection offered to other local exchange carriers;*
3. *the number of collocation cages;*
4. *the presence of SONET rings and other types of transport facilities;*
5. *the presence of local distribution facilities such as coaxial cable and/or unbundled loops; or*
6. *any other indicia reliably demonstrating that the carrier is transporting a significant volume of traffic to a geographically dispersed area.*

These factors are similar to those employed by the NYPSC in addressing the traffic imbalance issue. Furthermore, in evaluating the degree to which actual tandem or tandem-like functions are performed, the Commission shall also take into account the extent to which, if any, the traffic examined requires the performance of tandem or tandem-like functions. Examining the need for such functions will avoid the configuration of networks for the purpose of obtaining the tandem rate even when tandem or tandem-like functions are unnecessary.Because a carrier's proof of actual tandem of tandem-like functionality will be fact-driven, it may demonstrate such functionality, upon request, in either an arbitration proceeding or other appropriate proceeding

designated by the Commission, such as a post-interconnection agreement dispute proceeding.[152] *Upon evidencing the degree to which traffic exceeding the 3-to-1 ratio satisfies the receipt of the tandem rate, the requesting carrier is entitled, on a prospective basis, to receive such rate to the extent that it has demonstrated that it is entitled to receive such compensation. Therefore, the rate awarded may range from 0% of the tandem rate up to 100% of the tandem rate, depending on the evidentiary record. Moreover, this prospectively applied rate shall apply to all of the traffic that the requesting carrier terminates on its network, i.e., traffic occurring before and after the 3-1 ratio.*

In summary, the Commission adopts the following rate structure as the mechanism for payment of reciprocal compensation:

1. *For traffic terminated by a LEC with two-tier or hierarchical switches, i.e., separate switches performing tandem and end office functions:*
   - *When tandems are used, the originating LECs pay the tandem rate (end office switching + tandem switching + interoffice transport).*
   - *For purposes of the tandem served rate, the end office rate is a bifurcated rate (set-up per call and duration), and the tandem switching and interoffice transport rates are the Mega-Arbitration rates previously adopted by the Commission.*
   - *When tandems are not used, the originating LECs pay the end office rate only.*
2. *For traffic terminated by a LEC that does not have two-tier or hierarchical switches, but instead employs multiple-function switches:*
   - *A tandem blended rate (end office switching + % of [tandem switch + interoffice transport]) applies.*
   - *For purposes of this tandem blended rate, the end office rate is a bifurcated rate (set-up per call and duration); the tandem and transport rates are the rates adopted in the Mega-Arbitrations;*[153] *and the % is the approximate percentage of CLEC traffic terminated on SWBT's network using tandems*

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[152] Such proceedings shall be subject to Subchapters P or Q in the Commission's procedural rules, as appropriate.

[153] The inter-office transport rate used in calculating the blended tandem rate shall include the terminating statewide average inter-office transport rate, rather than the blended transport rate, and the facilities miles statewide average approved in the Mega-Arbitrations proceedings. *See* Attachment A. A 14-mile estimate shall also be used in computing the facilities mileage element for purposes of the blended tandem rate. This inter-office transport rate also applies to the full tandem rate calculation.

(42%), which serves as the proxy for SWBT traffic terminated on the CLECs' networks that involves the performance of tandem or tandem-like functions.

- *This tandem blended rate applies until a 3:1 ratio (terminating to originating traffic) threshold is reached.*
- *After the 3:1 ratio threshold is reached, only the end office rate applies, unless the terminating carrier demonstrates actual tandem or tandem-like functionality.*
- *Upon a demonstration of actual tandem or tandem-like functionality, the terminating carrier will receive, on a going-forward basis, compensation in the range of 0% to 100% of the tandem rate, depending on the extent to which actual tandem or tandem-like functionality is proven to occur. This rate shall prospectively apply to all of traffic terminated on the terminating carrier's network.*
- *LECs may demonstrate actual tandem or tandem-like functionality either in an arbitration proceeding or other proceeding designated by the Commission.*

C. DPL ISSUE NO. 3 - WHAT RATES SHOULD APPLY?

All parties agree that the TELRIC principles drive the determination of rates in this docket. TELRIC requires that a cost study employed to set such rates be forward-looking in nature; use an efficient network and engineering framework; and not use embedded costs.[154] Taylor Comm. is the only CLEC in this docket that presented its own cost study. The other parties rely on cost studies previously approved by the Commission.

1. Taylor Comm. Cost Study, Request for Carrier-Specific Rates, and Asymmetric Rates

(a) Taylor Comm.'s Position

Taylor Comm. contends that it should receive higher reciprocal compensation rates than SWBT because its costs to terminate calls are higher. Since its business plan results in a customer base that is disproportionately comprised of ISPs, Taylor Comm. asserts that its cost

[154] *See* 47 C.F.R. § 51 Subpart F.

structure is different from that of SWBT and other companies.[155] Taylor Comm. proposes a minutes of use (MOU) rate structure to recover its compensation from SWBT.[156]

Taylor Comm. notes that most of its costs are volume sensitive, and that it is capable of identifying its incremental costs very efficiently.[157] As proof that its costs are different from those of other carriers, Taylor Comm. submitted a cost study (the QSI study) that initially calculated its cost for call termination as roughly $0.004431 per minute.[158] Taylor Comm. claims that the QSI study is consistent with TELRIC principles. Specifically, Taylor Comm. indicates that no adjustments are needed in the study because the study assumes only efficiently located, state-of-the-art facilities. Further, Taylor Comm. avers that the most recent actual traffic data represent Taylor Comm.'s total company-wide demand for switching.

According to Taylor Comm., the study is designed to capture expenses and outputs as they may be expected to occur on an ongoing basis. Taylor Comm. further explains that the study identifies all necessary facilities for providing switching functions and assigning costs as either traffic sensitive or non-traffic sensitive. In this regard, Taylor Comm. confirms that only the traffic sensitive costs of switches are included in the study.[159] The QSI study uses as inputs: capital switching costs,[160] costs of connections to end-users from Taylor Comm.'s central offices, and trunking costs to reach SWBT switching facilities. The QSI study also assumes the economic life of a switch to be 18 years.[161]

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[155] Taylor Comm. Ex. No. 4, Rebuttal Testimony of Charles Land at 20.

[156] Tr. at 356 (April 5, 2000). Because the costs to terminate a call are not constant through the duration of a call, this type of recovery mechanism requires an assumption about the average call length. Taylor Comm. has not disclosed how it determined the average call time in its cost study, or even what it is.

[157] Taylor Comm. Ex. No. 4, Rebuttal Testimony of Charles Land at 20.

[158] *See* Taylor Comm. Ex. No. 1-11, Taylor Switching Cost Study.

[159] Taylor Comm. Ex. No. 1, Direct Testimony of Dr. August Ankum at 36-40.

[160] All switching equipment in the QSI study is leased from Siemens. *See* Taylor Comm. Ex. No. 1-11, Taylor Switching Cost Study at 8. The lease is for a five-year period. *See* Tr. at 417 (April 5, 2000).

[161] Taylor Comm. Ex. No. 1-11, Taylor Switching Cost Study at 9.

The QSI study links general and administrative costs to MOU based upon the demands on labor for each element. The QSI allocates the overhead costs based on headcount so the expenses follow labor costs, *e.g.*, if a person is assigned to retail related activities, then office and supply related expenses are proportionally assigned to retail activities. Taylor Comm. witness Dr. Ankum states that costs associated with "service to end-users have no place in a study for switching costs."[162] However, when asked about a specific line of costs labeled "end-user T-1s" in the Taylor Comm. cost study, Dr. Ankum states that these connections were usually to Taylor Comm.'s ISP customers, therefore demonstrating that costs associated with service to end-users are included in the QSI study.[163]

After the initial hearing on the merits, Taylor Comm. amended the QSI study inputs and revised its proposed rate from $0.004431 per minute to $0.002858 per minute, a 35% reduction.[164] In its revised cost study, Taylor Comm. addresses two issues raised in hearing: fill factors and return to capital.[165] Dr. Ankum changed the cost study to conform the Commission-approved rates of return used in the Mega-Arbitrations and modified the trunk utilization factor from 55% to the Commission-approved 75%. Dr. Ankum also increased the annual traffic estimate to 3.2 billion MOU in the revised cost study.[166]

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[162] Taylor Comm. Ex. No. 1, Direct Testimony of August H. Ankum at 49.

[163] Tr. at 365-366 (April 5, 2000).

[164] Taylor Comm. Ex. No. 5, Supplemental Testimony of Dr. August Ankum at 16; Post-Hearing Brief at 29-31 (April 19, 2000).

[165] Tr. at 320-324, 361-365, and 419-427(April 5, 2000). SWBT also criticized Taylor Comm.'s utilization and its inclusion of return on capital in the QSI study. *See* SWBT Ex. No. 15, Rebuttal Testimony of William Taylor at 5 and 17-18.

[166] Taylor Comm. Ex. No. 5, Supplemental Testimony of Dr. August Ankum at 15.

(b) SWBT Position

SWBT believes that the inter-carrier compensation rate should be set symmetrically at the TELRIC of a fully efficient competitor.[167] SWBT declares, therefore, that different assumptions about traffic volumes, depreciation lives, fill factors, or cost of capital should not matter if the forward-looking economic cost of terminating traffic is measured using the parameters of an efficient firm. SWBT warns that there are efficiency consequences of establishing a rate based on costs higher than those of the low-cost provider and states that when high-cost supplier remains in the market, resources are wasted.[168]

SWBT contends that Taylor Comm.'s cost study does not follow TELRIC principles. SWBT states the QSI cost study is a snapshot of Taylor Comm.'s current situation and is not necessarily indicative of future switch capacity and the ability to change capital expenditure.[169]

SWBT disagrees with Taylor witness Dr. Ankum's assertion that CLECs experience higher costs due to lower switch utilization levels and lack of scale economies.[170] SWBT states that manufacturers sell small switches and that CLECs can purchase switching capacities according to their demand. SWBT also argues that extra capacities can be added in the form of small a number of lines and, therefore, CLECs should not experience lower switch utilization levels. SWBT submits that lower costs are an important advantage resulting from economies of scale that SWBT should be encouraged to explore. According to SWBT, customers should not have to pay more, directly or indirectly, simply because a small firm has higher costs.[171]

SWBT also argues that Taylor Comm.'s cost study wrongly includes a return on capital for leased switches. SWBT contends that lease payments are expenses, not capital investments.

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[167] SWBT Taylor Direct, at 5.

[168] *Id.*

[169] SWBT Ex. No. 15, Rebuttal Testimony of William Taylor at 14-16.

[170] *Id.* at 5.

SWBT states that since Taylor Comm. has no capital investments in the leased switches, the opportunity costs and the normal profit from the switches is zero.[172] SWBT concludes that by using the current lease expenses in the QSI model, the cost study becomes one based on embedded costs, rather than forward-looking costs. SWBT contends that the QSI cost study computes switching costs with similar logic. The QSI cost study divides current lease payments by the current number of minutes to arrive at the switching costs per minute. This, by definition, makes the QSI cost study a short-term rather than long-run study, according to SWBT. SWBT maintains that the lease payments also appear to be higher than the capital costs of the same equipment, thus overstating Taylor Comm.'s costs.[173]

Finally, SWBT alleges that the QSI study does not incorporate overhead expenses, including entertainment costs and recycling fees in a proper way.[174]

(c) Commission Decision

The Commission finds that Taylor Comm.'s cost study does not follow TELRIC principles and, therefore, cannot be used to determine reciprocal compensation rates. The Commission acknowledges the adjustments that Taylor Comm. made to the QSI study but notes that the revised rate of $0.002858 per minute is still significantly higher than the end office rate of $0.001507 approved in the Mega-Arbitrations. While the FCC allows a CLEC to petition for higher reciprocal compensation rates than those of the ILEC, the CLEC must show that it is using the most cost-effective, forward-looking method possible to serve customers.[175] Taylor Comm. failed to meet this burden.

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[171] *Id* at 6.

[172] *Id* at 17-18.

[173] *Id* at 13-14.

[174] Tr. at 529-530 (May 18, 2000).

[175] 47 C.F.R. 51.711(b).

Taylor Comm.'s inclusion of the costs of connecting its end-use customers to its switches is the most fundamental flaw of the QSI cost study. The Commission agrees with SWBT that those costs should not be included in the calculation of reciprocal compensation. The Commission concludes that Taylor Comm.'s inclusion of these costs results in a significant overestimation of costs by the QSI cost study. The Commission suspects that if these elements were deleted from the study, Taylor Comm.'s rates would be much closer to those approved in the Mega-Arbitration proceedings.

The Commission also agrees with SWBT that the QSI study should use switch capacity rather than actual demand. The Commission concludes that the use of actual demand violates TELRIC principles.

Further, although Taylor Comm. states that only traffic-sensitive elements should be included in reciprocal compensation rates, it assigns the majority of costs associated with elements such as recycling fees and entertainment to the traffic-sensitive portion of the QSI cost study. The Commission finds that Taylor Comm.'s failure to sufficiently explain the relationship between these elements and the number of minutes terminated in its switch further undermines the cost study's results.

2. Southwestern Bell Cost Study and ISP-Specific Reciprocal Compensation Rates

(a) SWBT Position

SWBT supports the use of the Mega-Arbitrations' local switching UNE cost study to determine the appropriate rates for the termination of local voice traffic. The cost study includes the investment necessary for call set-up, call termination, and vertical services. SWBT contends, however, that ISP-bound traffic does not require the use of all of these functions and argues that the total costs in that study should not be attributed to ISP-bound traffic. SWBT also indicates that the average hold times are approximately three minutes for voice calls as compared to 29

minutes for Internet calls.[176] SWBT notes that a principal reason that it is less costly to terminate an ISP-bound call than a voice call is the longer average hold time. SWBT explains that a comparison of one 29-minute ISP-bound call to the equivalent minutes of voice calls yields nine additional call set-ups for the voice calls. Moreover, SWBT states that the stable and longer ISP-bound call does not require as many network resources as calls that have a much shorter average holding time. SWBT concludes that each time a call is set-up and torn down, additional network resources are used compared to a call that is more stable.[177]

SWBT relies on its ISP-bound traffic (IBT) cost study to demonstrate that ISP-bound traffic is fundamentally different from voice traffic and should not be subject to reciprocal compensation, although SWBT does not propose that the cost study be used to set rates.[178] SWBT's IBT cost study measures costs associated only for dial-up, 56 kilobit Internet calls. SWBT contends that the difference in call duration between voice and ISP-bound traffic justifies separating the traffic for rate purposes, with ISP-bound traffic costing approximately 20% the cost of voice traffic. In addition to using a 29-minute average hold time for ISP-bound traffic, SWBT states that the IBT cost study assumes that the switches terminating the ISP-bound traffic have no vertical services, which it contends are unnecessary for ISP-bound calls, and are the absolute minimum necessary to complete the ISP connection.[179] SWBT explains that its voice traffic study, however, does not make these assumptions, but rather includes the programming of vertical and other services into the switch, thereby increasing the switching costs for voice traffic, regardless of the call duration. Despite these differences in the cost studies, SWBT admitted on cross-examination that ISP-bound traffic uses the same switches and the same network as voice traffic.[180]

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[176] SWBT Ex. No. 16, Direct Testimony of Ed Wynn at 7.

[177] SWBT Ex. No. 5, Direct Testimony of Robert Jayroe at 6.

[178] SWBT Ex. No. 13, Rebuttal Testimony of Barbara Smith at 6-7.

[179] SWBT Ex. No. 13, Rebuttal Testimony of Barbara Smith at 3-4 and SWBT Ex. No. 19, SWBT IBT Cost Study at SWBT200005.

[180] Tr. at 199-204 (April 4, 2000).

The peak traffic hour in the SWBT IBT study is assumed to be the peak hour for ISP traffic. SWBT asserts that this peak hour increases costs because it requires more switching resources to accommodate increased usage at the peak hour. SWBT also contends that the switches must be engineered in a manner to handle all traffic, not just a subset of traffic.[181]

(b) CLECs' Position

Taylor Comm. avers that the costs associated with the termination of ISP traffic are the same as that for traditional voice traffic. Taylor Comm. contends that the SWBT IBT cost study erroneously concludes that the costs associated with terminating ISP-bound traffic are a fraction of those approved in the Mega-Arbitrations. Taylor Comm. also argues that the SWBT IBT cost study does not follow TELRIC principles and is not representative of CLEC costs.[182] According to Taylor Comm., SWBT's assumption of a host/tandem architecture is not accurate for most CLECs and underestimates CLEC costs. Taylor Comm. states that although the host/tandem architecture allows switches to share functionality and, therefore, lower their costs, CLECs do not use this type of architecture because they have yet to achieve the size of ILECs such as SWBT.[183]

WCOM and ICG state that reciprocal compensation rates should be symmetric and should include ISP-bound traffic.[184] These CLECs contend that symmetric rates promote efficiency and low-cost methods for terminating calls because they allow exceptionally efficient carriers a higher profit .[185]

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[181] SWBT Ex. No. 15, Rebuttal Testimony of William Taylor at 10-11.

[182] Taylor Comm. Ex. No. 1, Direct Testimony of August H. Ankum at 52-53, 55; Taylor Comm. Ex. No. 4, Rebuttal Testimony of Charles Land at 13-14.

[183] Taylor Comm. Ex. No. 1, Direct Testimony of August H. Ankum at 61-63, 65.

[184] WCOM Ex. No. 1, Direct Testimony of Don Price at 4; Coalition Ex. No. ICG-3, Direct Testimony of Don Wood at 8.

[185] WCOM Ex. No. 1, Direct Testimony of Don Price at 4.

Given that ISP-bound traffic uses the same public switched telephone network as voice traffic, AT&T argues it is incorrect to separate ISP-bound traffic for costing purposes. By example, AT&T contends that consideration of only ISP-bound traffic in the SWBT IBT study misstates the peak hour usage of the network and asserts that all traffic should have been considered in making this estimation.[186] AT&T further argues that the SWBT IBT cost study is an incremental cost study inconsistent with the TELRIC framework.[187] In support of this argument, AT&T cites the inability to accurately separate ISP traffic from voice traffic, the exclusion of tandem switching costs, and the exclusion of many components of end-office switching costs, *i.e.*, Signal System 7 (SS7) capability.[188] Additionally, AT&T advocates the minute-is-a-minute approach in determining network costs, asserting there should be no differentiation in costs by types of traffic.[189]

Finally, AT&T argues that the 90% processor utilization factor used in the SWBT IBT cost study is too high and underestimates true costs. AT&T points out that the 90% rate was approved in the Mega-Arbitration proceedings for a slightly different purpose, noting that no unit cost figures based on the 90% processor utilization value were used to establish local switching rates in those proceedings. Questioning the propriety of using the 90% processor utilization factor, AT&T observes that the range of resulting cost calculations can vary as much as 100-fold when the assumptions employed vary between 0% utilization to 100% utilization.[190]

AT&T offers a counter method for setting reciprocal compensation rates that treats traffic within an entire LATA as local traffic. The rates proposed by AT&T are largely based on costs determined in the Mega-Arbitrations, with small changes in certain assumptions. For example, AT&T assumes that the average mileage for transport is longer than that assumed in the Mega-

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[186] AT&T Ex. No. 3, Direct Testimony of Lee L. Selwyn at 15-17.

[187] AT&T Ex. No. 1, Direct Testimony of Daniel P. Rhinehart at 14.

[188] *Id.* at 7.

[189] *Id.* at 9.

[190] *Id.* 17-20.

Arbitrations in view of the inclusion of more rural, less dense areas in a LATA. The AT&T method also includes use of the tandem switch charge.[191] The AT&T proposal results in a blended rate of $0.0024654 per minute.[192]

The Coalition, like AT&T and ICG, contend that the SWBT IBT cost study is faulty. Coalition witness Mr. Montgomery supports the testimony of AT&T witness Mr. Rhinehart and ICG witness Mr. Wood setting forth the flaws in the SWBT IBT cost study.[193] The Coalition is also critical of the SWBT IBT's use of two usage studies. It asserts that the first usage study attempts to separate ISP-bound traffic and measure the number of minutes that fit criteria established by SWBT as indicators of an Internet dial-up call, including the number of incoming calls and the duration of those calls. With regard to the second study, which counts the minutes of voice and data traffic for two SWBT central offices, the Coalition argues there is no scientific or logical reason for using those specific central offices . According to the Coalition, the data obtained from the two offices differ from each other significantly and, consequently, cannot be used to determine any traffic patterns.[194]

(c) Commission Decision

All parties agree that the SWBT IBT cost study should not be used to set reciprocal compensation rates. The Commission concludes that the SWBT IBT cost study is not a TELRIC study and also cannot be used to justify differentiating ISP-bound traffic and voice traffic for costing purposes. At this time, the Commission declines to distinguish voice from ISP-bound traffic for purposes of setting reciprocal compensation rates.

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[191] AT&T Ex. No. 7, Direct Testimony of Jon A. Zubkus at Attachment 1.

[192] AT&T Ex. No. 7, Direct Testimony of Jon A. Zubkus at 5.

[193] Coalition Ex. No. CLEC-2, Rebuttal Testimony of William Page Montgomery at 11-12.

[194] Coalition Ex. No. CLEC-1, Direct Testimony of William Page Montgomery at 53-57.

The Commission has rejected AT&T's proposed LATA-wide calling scope and also rejects AT&T's LATA-wide blended rate. See discussion in DPL Issue No. 2.

3. The Bifurcated Rate

During the initial hearing on the merits, there was considerable discussion of the development of a bifurcated local switching rate that would address the three-minute average voice call length used in the approved Mega-Arbitration local switching rate and the 29-minute average ISP-bound call length used in the SWBT IBT study.[195] The Commission expressed interest in a two-part rate that separates call set-up from call duration costs, which would mitigate any over-compensation resulting from the rate structure adopted in the Mega-Arbitrations, which is predicated upon call duration only.

(a) Parties' Positions

After the initial hearing on the merits, AT&T witness Mr. Rhinehart initiated discussions with SWBT witness Ms. Smith regarding the possibility of calculating a two-part local switching rate consisting of a per-message set-up charge and a per-minute-of-use charge that would be consistent with the local switching and reciprocal compensation rates for local switching adopted in the Mega-Arbitrations.[196] Ms. Smith and Mr. Rhinehart agreed that the appropriate surrogate for separating set-up and duration costs can be based on an approved SWBT local service basic network function (BNF) cost study that identified local switching investment on a set-up and duration basis.[197] Ms. Smith and Mr. Rhinehart developed a ratio using both interoffice and intraoffice calling investments.[198] Although their calculations were performed independently, Ms. Smith and Mr. Rhinehart both calculated rates of $0.0010887 per call and $0.0010423 per

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[195] *See* Tr. at 231-275 (April 4, 2000) and 427-431 (April 5, 2000).

[196] AT&T Ex. No. 11, Affidavit of Daniel P. Rhinehart.

[197] *See Southwestern Bell Telephone Company's Application for Approval of LRIC Studies for Basic Network Access Channel Nonstandard 4-Wire, Type O, et. al., Pursuant to PUC SUBST. R. 23.91*, Docket No. 16657.

[198] SWBT Ex. No. 28, Affidavit of Barbara Smith; AT&T Ex. No. 11, Affidavit of Daniel P. Rhinehart.

minute for end-office switching.[199] Ms. Smith indicated that she participated in several conference calls with AT&T and other CLEC petitioners to revise, clarify and explain the methodology and calculations based on input from other CLEC cost witnesses.[200]

SWBT, WCOM, AT&T, ICG, and the Coalition indicate that the bifurcated rate concept is acceptable.[201] Taylor Comm. opposes the bifurcated rate because its network is not limited in capacity by a call set-up function and argues that such a rate would not compensate Taylor Comm. for legitimate costs incurred in terminating SWBT's ISP-bound traffic.[202] Level 3, KMC, and Adelphia oppose implementation of the bifurcated rate, citing a lack of evidentiary support.[203] Intermedia, Focal, Winstar, TW, NEXTLINK, and Allegiance express concern over the costs associated with administration and billing of a two-part rate.[204] Finally, SWBT rejects application of the bifurcated rate to ISP-bound traffic.[205]

(b) Commission Decision

While the parties argue against the implementation of the bifurcated end-office rate at this time, those parties, with one exception, nevertheless agree that the bifurcated rate independently calculated by Mr. Rhinehart and Mr. Smith is reasonable. The Commission is not

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[199] Tr. at 519-524 (May 18, 2000). The computation begins with the approved Mega-Arbitration local switching rate, which is a blended per-minute rate based upon an average call of 2.34 minutes. The BNF studies in Docket No. 16657 were computed with independent set-up (per call) and duration (per minute) components. The ratio of the two is used to compute rates based upon Mega-Arbitration inputs. Jointly, SWBT witness Mr. Smith and AT&T witness Mr. Rhinehart agree that a 75% large offices/25% small offices mix is appropriate for this computation.

[200] SWBT Ex. No. 28, Affidavit of Barbara Smith.

[201] Tr. at 241-255 (April 4, 2000).

[202] Taylor Comm. Post-Hearing Brief at 32 (April 19, 2000).

[203] Post Hearing Reply Brief of KMC at 3 (April 26, 2000), Level 3 Post Hearing Brief at 32 (April 19, 2000) and Reply Brief of Adelphia and CCCTX, Inc. D/B/A Connect! at 8 (April 26, 2000).

[204] Initial Brief of Focal at 13 and Initial Brief of Allegiance at 18 (April 19, 2000); Reply Brief of Winstar at 5, Reply Brief of TW at 6, NEXTLINK's Reply Brief at 4, and Intermedia Reply Brief at 4 (April 26, 2000).

[205] SWBT's Supplemental Brief on "Blended Rate" Issue at 8 (May 26, 2000).

persuaded that the costs of implementation, administration, and billing outweigh the benefits of this cost-based rate, which more specifically accounts for the structure of the costs incurred. Moreover, the Commission finds that there is sufficient evidence in the record to support adoption of the bifurcated end-office rate. Furthermore, the Commission finds that this two-part end-office rate minimizes the debate about average call length. The Commission concludes that the two-part end-office rate, consisting of (1) a per call charge for the compensation of setup costs ($0.0010887 per call) and (2) a per minute charge ($0.0010423 per minute) for the compensation of volume-sensitive costs, shall be applied to all local traffic, including ISP-bound traffic.

The Commission re-adopts the inter-office transport and tandem switching rates adopted in the Mega-Arbitrations. The bifurcated end-office rate, the tandem switching rate, and the inter-office transport rates approved in this Order shall be applied to the rate structures approved under DPL Issue No. 2.

D. DPL ISSUE NO. 4: WHAT IS THE APPROPRIATE METHOD BY WHICH TO BILL FOR THIS TRAFFIC?

(a) The Current Billing System

SWBT and CLECs currently calculate, verify, and bill for reciprocal compensation using a combination of originating records, terminating records, and factoring systems. In some instances, the companies are using a bill-and-keep system. Since 1994, SWBT has used an originating records system to bill for access compensation for LEC-carried intraLATA toll, local, extended area service (EAS), and transit traffic.[206] Throughout this proceeding, is system has

[206] SWBT Ex. No. 10, Direct Testimony of Joe B. Murphy at 4-5; Coalition Ex. No. ICG-9, Direct Testimony of William J. Warinner at 6.

been referred to as the "92 records" system, the "Primary Carrier" System (PCS), or the "92-99" records system.[207]

Today, if either an ILEC or a facilities-based CLEC routes a call over SWBT facilities, billing is processed using the 92 originating records process.[208] The 92 process registers usage at the point at which the call enters or originates on the network and identifies the company that receives the call.[209] The originating company then provides the records to the terminating company, which verifies and uses the records to bill the originating company for reciprocal compensation.[210] If a third-party customer places a call to a CLEC customer, and SWBT transports the call over its network, then the originating company provides records to both the transiting carrier, SWBT, and the terminating CLEC. SWBT and the terminating CLEC verify the records and use them to bill the originating company for reciprocal compensation.[211]

Currently, SWBT and AT&T exchange records using the 92 originating records process when AT&T delivers its customer's calls to SWBT using AT&T 4E and 5E switches. However, where the 4E switch is used, AT&T and SWBT exchange records for verification purposes only and use a separate process for billing. For calls traversing AT&T's 4E switch, SWBT bills AT&T at the access rate. AT&T then applies a SWBT approved factoring process to credit the overcharged rate on AT&T's access bill.[212] For SWBT originated calls that traverse AT&T's 4E switch, AT&T and SWBT exchange records and bill via the 92 originating records process.[213] Where AT&T's 5E switches are used, AT&T and SWBT exchange records for verification

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[207] In this Award, SWBT's originating records exchange and billing system is referred to as the "92 originating records process" or the "92 process." This Award will refer to the originating records used in this process as "92 records."

[208] SWBT Ex. No. 10, Direct Testimony of Joe B. Murphy at 4.

[209] SWBT Ex. No. 1, Direct Testimony of Paul L. Cooper at 9-10.

[210] SWBT Ex. No. 10, Direct Testimony of Joe B. Murphy at 7.

[211] *Id.*

[212] AT&T Ex. No. 9, Direct Testimony of Shannie Marin at 7.

purposes to test the 92 originating records exchange process. During this period, the companies use bill-and-keep.[214] When AT&T uses a SWBT unbundled switch element (UNE), the companies exchange records and bill via the 92 originating records process.[215] In such an instance, however, SWBT sends Category 11 records to AT&T for purposes of verifying these calls.[216] The 92 process is also used when AT&T operates as an unbundler.[217]

SWBT uses the Carrier Access Billing System (CABS) to bill for access compensation when calls are passed over interexchange carrier (IXC) facilities. This system uses "Category 11" terminating records,[218] the CLECs' preferred alternative. Category 11 terminating records are call records collected by the carrier that terminates the call. The two types of records contain similar information.[219]

(b) CLECs' Positions

The CLECs present a number of arguments for abolishing the current 92 originating records process. ICG identifies the incentive that occurs when originating carriers instruct the terminating carrier on the amount of reciprocal compensation that the originating carrier must pay as one problem with the current system.[220] ICG believes that it should by compensated by SWBT using a terminating records process similar to that used in the competitive interLATA marketplace.[221] WCOM opposes the collection of data needed to render the bill by the carrier

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[213] *Id.*

[214] *Id.* at 8.

[215] *Id.*

[216] Tr. at 646 (April 5, 2000).

[217] AT&T Ex. No. 9, Direct Testimony of Shannie Marin at 6.

[218] SWBT Ex. No. 10, Direct Testimony of Joe B. Murphy at 4.

[219] This Award refers to the terminating record exchange and billing system as the "terminating records process." It refers to the terminating records used in this process as "Category 11 records."

[220] Coalition Ex. No. ICG-9, Direct Testimony of William J. Warinner at 16.

that will ultimately pay the bill.[222] e.spire argues that the Commission should audit SWBT to identify the origin and types of traffic directed onto e.spire's network.[223]

Some CLECs note that they are unable to verify the records created by the 92 originating records process.[224] Consequently, AT&T and SWBT use a factoring process to bill for these calls.[225] Since AT&T is still working to implement the process for its 5E switches, AT&T and SWBT are using bill-and-keep.[226] Taylor Comm. exchanges records and bills SWBT using the 92 originating records process, but is unable to verify the accuracy of the records.[227]

Several parties have experienced discrepancies between their own terminating records and SWBT's originating records. ICG testifies that its discrepancy is significant, but is unable to determine its exact cause.[228] ICG believes that its own terminating records are inherently more reliable than originating records.[229] ICG concurs that SWBT transports and terminates third party traffic to ICG, and that those third parties (including wireless carriers that do not participate in the 92 records process) do not provide billing records to ICG.[230] ICG also notes that terminating companies may not have a terminating recording method that identifies all third party traffic.[231]

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[221] *Id.* at 17.

[222] WCOM Ex. No. 1, Direct Testimony of Don Price at 32.

[223] e.spire Post Hearing Brief at 32 (April 19, 2000).

[224] AT&T Ex. No. 9, Direct Testimony of Shannie Marin at 6.

[225] *Id.* at 7.

[226] *Id.* at 8.

[227] Taylor Comm. Ex. No. 3, Direct Testimony of Charles D. Land at 26.

[228] Coalition Ex. No. ICG-7, Direct Testimony of Kenneth D. Davis at 4, 8; CLEC Coalition Ex. No. ICG-9, Direct Testimony of William J. Warinner at 9.

[229] Coalition Ex. No. ICG-7, Direct Testimony of Kenneth D. Davis at 9.

[230] Coalition Ex. No. ICG-9, Direct Testimony of William J. Warinner at 15.

[231] Coalition Ex. No. ICG-10, Rebuttal Testimony of William J. Warinner at 4.

AT&T prefers terminating records for calls involving unbundled switch elements (UNE-p) and local number portability (LNP).[232] ICG notes that, when a carrier using a SWBT UNE-p switch port, additional processing is required for the 92 records process to identify the originating company.[233] LNP further complicates the 92 records process by making it even more difficult for the terminating carrier to identify the originating carrier.[234] WCOM concurs that there are shortcomings with the 92 records exchange process for UNE-p and LNP calls.[235]

A number of parties object to the 92 originating records process in part because it is not an industry standard, pointing out that, the National Ordering and Billing Forum (OBF) has not approved the 92 originating records process.[236] ICG points out, and WCOM and AT&T concur, that while the 92 process uses some information that could be considered standard billing data, many fields in the 92 record are not standard and are modified from state to state within SWBT's operating territory.[237]

Some CLECs believe that the 92 originating records process is a duplicative and unnecessary financial burden. AT&T states that it already collects terminating records which, if used for billing, would eliminate the cost of the 92 process.[238] AT&T asserts that it can bill for reciprocal compensation using a terminating records process when using its own network, so long as SWBT sends complete call detail with the call.[239] AT&T asserts that it can also bill reciprocal compensation using a terminating records process for local, EAS, and intraLATA

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[232] AT&T Ex. No. 9, Direct Testimony of Shannie Marin at 8.

[233] Coalition Ex. No. ICG-9, Direct Testimony of William J. Warinner at 12.

[234] *Id.*

[235] WCOM Ex. No. 1, Direct Testimony of Don Price at 32.

[236] Coalition Ex. No. ICG-9, Direct Testimony of William J. Warinner at 10.

[237] *Id.* at 9; WCOM Ex. No. 1, Direct Testimony of Don Price at 32; and AT&T Ex. No. 9, Direct Testimony of Shannie Marin at 5.

[238] AT&T Ex. No. 9, Direct Testimony of Shannie Marin at 9.

[239] AT&T Ex. No. 10, Rebuttal Testimony of Shannie Marin at 5.

traffic.[240] ICG believes that the 92 originating records process itself is complex and expensive to implement and maintain.[241]

The CLECs also object to the 92 originating records process in part because it was not originally intended for use in a competitive environment. ICG points out that SWBT originally designed this process for use in the Missouri Primary Toll Carrier Plan implemented prior to the commencement of local and intraLATA toll competition.[242] The Coalition believes that the LECs for whom SWBT designed the system may not have been as sensitive to the system accuracy as CLECs.[243] In addition, the Coalition notes that the system was designed for much smaller volumes of traffic than it currently experiences.[244]

Several CLECs propose alternatives to the 92 originating records process. ICG proposes that reciprocal compensation settlements be based on each carrier's measurement of traffic that terminates on its own network.[245] ICG contends that these recordings would be taken at either the tandem or end office and would provide a usage record from which to bill the originating carrier directly for reciprocal compensation.[246] ICG notes that Category 11 records are consistent with OBF standards.[247]

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[240] *Id.*

[241] Coalition Ex. No. ICG-9, Direct Testimony of William J. Warinner at 5.

[242] *Id.* at 16.

[243] Coalition Ex. No. CLEC-1, Direct Testimony of William Page Montgomery at 60.

[244] *Id.*

[245] Coalition Ex. No. ICG-8, Direct Testimony of Roger L. Arnold at 3; Coalition Ex. No. ICG-9, Direct Testimony of William J. Warinner at 16.

[246] Coalition Ex. No. ICG-9, Direct Testimony of William J. Warinner at 16.

[247] Tr. at 626 (April 5, 2000).

AT&T and WCOM recommend that Category 11 terminating records be used to bill for reciprocal compensation.[248] AT&T suggests that, so long as SWBT sends complete call detail with each call, including "to" and "from" numbers and the originating company number (OCN), it can bill from terminating records.[249] AT&T notes that the "to" and "from" numbers are available in the call signaling and the OCN can be obtained using the LERG database.[250] WCOM also notes that its switches are able to record terminating records for billing purposes.[251] In addition, CLECs note that, if the Commission decides to implement a tandem compensation rate, the CLECs would be able to gather the information needed to bill for the tandem rate using the proposed terminating records system.[252]

ICG proposes billing SWBT for all minutes that it terminates to ICG over SWBT trunk groups, even if this traffic originated with another carrier--a process similar to payment arrangements between IXCs and ILECs.[253] ICG clarified, and AT&T concurred, that it does not propose to bill the transiting company for reciprocal compensation, but only wishes to bill the originating carrier. ICG prefers that when SWBT transports a call over its network, SWBT bill the originating carrier for reciprocal compensation.[254] The CLECs note that Category 11 terminating records do not identify all of the carriers within a call path, but can only identify one transiting carrier.[255]

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[248] AT&T Ex. No. 9, Direct Testimony of Shannie Marin at 3; WCOM Ex. No. 1, Direct Testimony of Don Price at 33.

[249] AT&T Ex. No. 9, Direct Testimony of Shannie Marin at 4.

[250] Tr. at 662-663 (April 5, 2000).

[251] WCOM Ex. No. 1, Direct Testimony of Don Price at 33.

[252] Tr. at 651 (April 5, 2000).

[253] Coalition Ex. No. ICG-9, Direct Testimony of William J. Warinner at 17.

[254] Tr. at 629, 636 (April 5, 2000).

[255] *Id.* at 575-576.

ICG and AT&T suggest that SWBT recover the costs of transiting traffic from the carriers whose traffic it transports.[256] In the alternative, ICG proposes that the Commission ensure SWBT's cooperation in providing all necessary information to identify the carriers that are transporting calls over its network. ICG then proposes to use its own terminating records to establish the correct amount of reciprocal compensation due from SWBT.[257]

The CLECs note that they are capable of using terminating records to bill the originating carrier for UNE-p and ported calls by using the location routing number, passed along in switching, and the Local Exchange Routing Guide (LERG) to determine who owns the calling number.[258] AT&T states that Pacific Bell is able to provide the OCN of any carrier operating with an unbundled switch, ensuring accurate billing to all parties.[259]

Finally, AT&T raises a billing sub-issue relating to the infrequent occurrence of originating traffic for which a calling party number (CPN) is unavailable. Under such circumstances, the actual jurisdiction of the call (i.e., local versus toll) cannot be determined and the appropriate billing cannot subsequently occur. AT&T proposes that when CPN is not available, the parties should work cooperatively to develop a factor that will properly assign traffic on the basis of available historical data on normal jurisdictional patterns, among other things.[260]

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[256] Coalition Ex. No. ICG-9, Direct Testimony of William J. Warinner at 17; AT&T Ex. No. 10, Rebuttal Testimony of Shannie Marin at 6; Tr. at 575 (April 5, 2000)

[257] Coalition Ex. No. ICG-9, Direct Testimony of William J. Warinner at 17.

[258] Tr. at 658 (April 5, 2000).

[259] AT&T Ex. No. 9, Direct Testimony of Shannie Marin at 4.

[260] AT&T Ex. No. 5, Direct Testimony of Maureen A. Swift at 13.

(c) SWBT's Position

SWBT prefers to continue using the 92 originating records process for a number of reasons, primarily because it is currently in use and it is the only process that provides the information needed to compensate all companies for use of their facilities.[261] SWBT further indicates that by using originating records, the 92 process avoids the problem of billing a carrier for third party traffic that merely transits its network.[262] SWBT does not believe that this proceeding is an appropriate forum for addressing billing and records exchange processes because a change in any process would affect all the ILECs and facilities-based CLECs in Texas.[263] SWBT notes, and AT&T's witness agrees, that the CLECs do not agree on an alternative records exchange and billing process.[264]

SWBT discusses at length the Connecting Network Access Recording (CNAR®) and AcceSS7® systems used on their network and their ability to make terminating recordings.[265] Although the AcceSS7® system does record terminating usage and SWBT is currently testing it for use as a billing system, SWBT nonetheless contends that the AcceSS7® system is not ready for use as billing system.[266] In addition, SWBT currently has not installed the CNAR® system, which creates a terminating record, on all of its switches.[267] SWBT notes that, if the Commission were to mandate a terminating records process, it could use the 92 records process to verify bills received for reciprocal compensation.[268] Until SWBT is able to generate

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[261] SWBT Ex. No. 10, Direct Testimony of Joe B. Murphy at 5.

[262] SWBT Ex. No. 11, Rebuttal Testimony of Joe B. Murphy at 14.

[263] *Id.* at 7.

[264] *Id.* at 20; Tr. at 583 (April 5, 2000).

[265] Coalition Ex. No. ICG-8, Direct Testimony of Roger L. Arnold.

[266] Tr. at 588, 590, 644 (April 5, 2000).

[267] *Id.* at 609, 600.

terminating recordings, ICG notes that it can continue to give SWBT originating records for traffic that it terminates onto SWBT's network.

SWBT counters criticisms regarding accuracy by pointing out ICG's testimony indicating that the terminating records from ICG switches are unable to identify the originating party on all recorded traffic.[269] SWBT also notes that ICG's method of using the Local Exchange Routing Guide (LERG) to identify traffic that is originated on SWBT's network does not work for calls involving local number portability (LNP). SWBT further points out that the 92 originating records process identifies the originating caller for LNP calls and calls that involve unbundled switch elements.[270] Finally, SWBT notes that CLECs, with whom ICG has not negotiated reciprocal compensation and records exchange agreements, could be sending traffic to ICG customers.[271]

SWBT strongly opposes any alternative that results in CLECs billing SWBT for third party traffic carried over SWBT's network, asserting that the CLECs are responsible for establishing agreements with third-party carriers.[272] SWBT believes that companies that terminate traffic should bill the originating carriers directly.[273] SWBT notes that its interconnection agreements address this issue.[274] SWBT further notes that the FTA does not obligate SWBT to perform a third-party billing and collection function.[275]

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[268] *Id.* at 667.

[269] SWBT Ex. No. 11, Rebuttal Testimony of Joe B. Murphy at 4.

[270] *Id.*

[271] *Id.* at 16.

[272] *Id.* at 3.

[273] *Id.*at 2; SWBT Ex. No. 10, Direct Testimony of Joe B. Murphy at 7.

[274] SWBT Ex. No. 11, Rebuttal Testimony of Joe B. Murphy at 3.

[275] *Id.* at 15.

SWBT points out that the terminating records process proposed by AT&T and supported by other parties has limitations. Category 11 terminating records require SWBT to send complete call detail information already provided by the 92 originating records process.[276] In addition, SWBT notes that Category 11 records do not contain the information needed to identify all the parties on the call path, making it difficult for the terminating carrier to bill all the carriers involved in completing the call.[277] Finally, SWBT does not believe that moving to terminating records will solve the data problems discussed in this proceeding unless all companies' exchange records.[278]

(d) Commission Decision

The Commission acknowledges that the lack of agreement of the parties with respect to billing issues extends to the national level. Moreover, the Commission notes that the common practice in our economy is to generally rely upon the records of the party that remits a service (e.g. the terminating carrier) and submits a bill to the recipient of that service (e.g., the originating carrier). Therefore, the Commission concludes that, where technically feasible, the terminating carrier's records shall be used to bill originating carriers (excluding transiting carriers) for reciprocal compensation, unless both the originating and terminating carriers agree to use originating records. The Commission further concludes that where a terminating carrier is not technically capable of billing the originating carrier (excluding transiting carriers) through the use of terminating records, the terminating carrier shall use any method agreed upon between the parties. The Commission finds that the use of terminating records among the parties to bill for reciprocal compensation is a more efficient and less burdensome method to track the exchange of traffic. Terminating records impose less cost upon the terminating

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[276] *Id.* at 17.

[277] *Id.* at 6, 17, 19. Parties noted that Category 11 terminating records do not identify all of the carriers within a call path, but can only identify one transiting carrier. Parties also agreed that while 92 originating records can identify up to eight parties within the call path, Category 11 records can only identify one transiting party. *See* Tr. at 563, 575-577 (April 5, 2000).

[278] SWBT Ex. No. 11, Rebuttal Testimony of Joe B. Murphy at 19.

carriers than the previous regulatory scheme that used SWBT's 92/99 originating records to bill for reciprocal compensation.

The Commission notes SWBT's concerns regarding transiting traffic and concludes that terminating carriers shall be required to directly bill third parties that originate calls and send traffic over SWBT's network. Transiting carriers shall bill the originating carrier using terminating or originating records based upon existing contract terms between the originating and transiting carrier.

The Commission recognizes that there may be disagreement over the content and/or accuracy of a carrier's termination records and expects that such disputes will be settled among the parties. The Commission notes, however, that when a balance in the traffic between originating and terminating carriers eventually occurs, a bill-and-keep system could be adopted that would eliminate the need for exchange of terminating records.

Finally, with respect to the billing of traffic for which CPN is unavailable, the Commission adopts the solution employed in the T2A.[279] *If the percentage of calls passed with CPN is greater than 90 percent, all calls exchanged without CPN information will be billed as either local traffic or intraLATA toll traffic in direct proportion to the MOUs of calls exchanged with CPN information. If the percentage of calls passed with CPN is less than 90 percent, all calls passed without CPN will be billed as intraLATA toll traffic.*

[279] *See* Project No. 16251, Order No. 55, Attachment 12 at ¶ 7.5.

SIGNED AT AUSTIN, TEXAS the _____ day of August, 2000.

PUBLIC UTILITY COMMISSION OF TEXAS

_____

PAT WOOD, III, CHAIRMAN

_____

JUDY WALSH, COMMISSIONER

_____

BRETT A. PERLMAN, COMMISSIONER

Staff Arbitration Advisors

Jingming Chen, Katherine Farroba, Steve Davis, Mark Gladney, Adriana Gonzales, Todd Kimbrough, Anne McKibbin, Donna Nelson, Meena Thomas, Pamela Whittington, Patricia Zacharie, and Diana Zake.

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Sprint – Florida, Incorporated
Docket No. 000075-TP
Staff's First Set of Requests
For Production of Documents
January 30, 2001
Item No. 4

REQUEST: Please provide a copy of any and all reports, other than those produced by the FCC, that are referred to in the rebuttal testimony of Sprint's witnesses, to the extent they have not been provided in the testimony and exhibits.

RESPONSE: There are no reports referred to in the rebuttal testimony of Michael Hunsucker.

INFORMATION PROVIDED BY: Michael Hunsucker
Director – Regulatory Policy

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip -4

PARTY: Verizon Florida Inc.

DESCRIPTION:

1. Verizon's Responses to Staff's First Set of Interrogatories and First Request for Production of Documents.

PROFFERING PARTY: STAFF

I.D. # Stip-4

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 000075-TP EXHIBIT NO. 4
COMPANY/
WITNESS. FPSC Staff
DATE: 3-7-07

Kimberly Caswell
Vice President and General Counsel, Southeast
Legal Department

verizon

FLTC0007
201 North Franklin Street (33602)
Post Office Box 110
Tampa, Florida 33601-0110

Phone 813 483-2606
Fax 813 204-8870
kimberly.caswell@verizon.com

February 21, 2001

Ms. Blanca S. Bayo, Director
Division of Records & Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 000075-TP
Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996

Dear Ms. Bayo:

Please find enclosed an original and one copy of Verizon Florida Inc.'s Notice of Service of Responses to Staff's First Set of Interrogatories (Nos. 1-23) for filing in the above matter. Service has been made as indicated on the Certificate of Service. If there are any questions regarding this matter, please contact me at 813-483-2617.

Sincerely,

Kimberly Caswell

KC:tas
Enclosures

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996	Docket No. 000075-TP Filed: February 21, 2001

NOTICE OF SERVICE OF VERIZON FLORIDA INC.'S RESPONSES TO STAFF'S FIRST SET OF INTERROGATORIES (NOS. 1-23)

NOTICE IS HEREBY GIVEN that a true and correct copy of Verizon Florida Inc.'s Responses to Staff's First Set of Interrogatories (Nos. 1-23), which were legally propounded by Staff on January 30, 2001, was hand-delivered on February 21, 2001 to Felicia Banks, Staff Counsel, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, FL 32399-0850.

The original and one copy of this Notice were sent via overnight delivery on February 20, 2001 to the Director, Division of Records & Reporting, at the Commission. Further service on other parties of record is as set forth on the Certificate of Service, appended hereto.

Respectfully submitted on February 21, 2001.

By: _____
Kimberly Caswell
Post Office Box 110, FLTC0007
Tampa, Florida 33601
Telephone: 813-483-2617

Attorney for Verizon Florida Inc.

VERIFICATION

STATE OF FLORIDA)
) ss.
COUNTY OF HILLSBOROUGH)

BEFORE ME, the undersigned authority, personally appeared Beverly Y. Menard, who deposed and stated that the answers to the First Set of Interrogatories (Nos.1-23) served on Verizon Florida Inc. by Staff in Docket No. 000075-TP were prepared at her request and she is informed that the responses contained therein are true and correct to the best of her information and belief.

DATED at Tampa, Florida, this 20th day of February, 2001.

Beverly Y. Menard
Beverly Y. Menard

Sworn to and subscribed before me this 20th day of February, 2001.

Teresa Ann Scobie
Notary Public
State of Florida

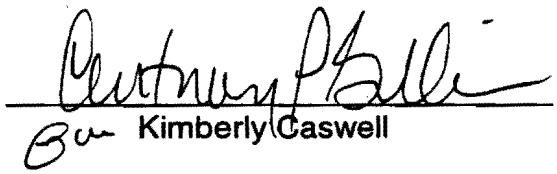
OFFICIAL NOTARY SEAL
TERESA ANN SCOBIE
NOTARY PUBLIC STATE OF FLORIDA
COMMISSION NO. CC777368
MY COMMISSION EXP. OCT. 21,2002

Name Typed or Printed/Commission No.

My Commission Expires:

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that copies of Verizon Florida Inc.'s Notice of Service and Responses to Staff's First Set of Interrogatories (Nos. 1-23) in Docket No. 000075-TP were sent via U.S. mail on February 21, 2001 to the parties on the attached list.



By: Kimberly Caswell

Staff Counsel
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Nancy White c/o Nancy Sims
BellSouth Telecomm. Inc.
150 S. Monroe Street, Suite 400
Tallahassee, FL 32301-1556

Marsha Rule
AT&T
101 N. Monroe Street
Suite 700
Tallahassee, FL 32301-1549

Michael Gross
Florida Cable Telecomm. Assn.
246 East 6th Avenue
Tallahassee, FL 32303

Charles Rehwinkel
Sprint-Florida
1313 Blairstone Road
MC FLTLHO0107
Tallahassee, FL 32301

Kenneth Hoffman
Martin McDonnell
Rutledge Law Firm
P. O. Box 551
Tallahassee, FL 32302

Peter Dunbar
Karen Camechis
Pennington Law Firm
P. O. Box 10095
Tallahassee, FL 32302

Mark Buechele
Supra Telecom
1311 Executive Center Drive
Suite 200
Tallahassee, FL 32301

Wanda Montano
US LEC of Florida Inc.
401 North Tryon Street
Suite 1000
Charlotte, NC 28202

Charles J. Pellegrini
Patrick Wiggins
Katz Kutter Law Firm
106 E. College Avenue
12th Floor
Tallahassee, FL 32301

Jon C. Moyle, Jr.
Cathy M. Sellers
Moyle Flanigan et al.
The Perkins House
118 N. Gadsden Street
Tallahassee, FL 32301

Norman H. Horton Jr.
Messer Law Firm
215 S. Monroe Street
Suite 701
Tallahassee, FL 32301-1876

James C. Falvey
e.spire Communications Inc.
133 National Business Parkway
Suite 200
Annapolis, Junction MD 20701

Donna Canzano McNulty
MCI WorldCom, Inc.
325 John Knox Road
The Atrium, Suite 105
Tallahassee, FL 32303

Brian Sulmonetti
MCI WorldCom, Inc.
Concourse Corp. Center Six
Six Concourse Parkway
Suite 3200
Atlanta, GA 30328

Scott A. Sapperstein
Intermedia Communications Inc.
One Intermedia Way
MC FLT-HQ3
Tampa, FL 33647-1752

Paul Rebey
Focal Communications Corp.
200 N. LaSalle Street, Suite 1100
Chicago, IL 60601-1914

Robert Scheffel Wright
Landers & Parsons P.A.
310 West College Avenue
Tallahassee, FL 32302

Jill N. Butler
Cox Communications
4585 Village Avenue
Norfolk, VA 23502

Charles A. Hudak
Ronald V. Jackson
Gerry, Friend & Sapronov LLP
Three Ravinia Drive, Suite 1450
Atlanta, GA 30346-2131

Joseph A. McGlothlin
Vicki Gordon Kaufman
McWhirter Law Firm
117 S. Gadsden Street
Tallahassee, FL 32301

Michael R. Romano
Level 3 Communications LLC
1025 Eldorado Boulevard
Broomfield, CO 80021-8869

Dana Shaffer, Vice President
XO Florida, Inc.
105 Molly Street, Suite 300
Nashville, TN 37201-2315

Elizabeth Howland
Allegiance Telecom Inc.
1950 Stemmons Freeway
Suite 3026
Dallas, TX 75207

Jeffry Wahlen
Ausley Law Firm
P. O. Box 391
Tallahassee, FL 32302

Woody Traylor
BroadBand Office Comm. Inc.
2900 Telestar Court
Falls Church, VA 22042-1206

Global NAPS, Inc.
10 Merrymount Road
Quincy, MA 02169

Genevieve Morelli
Kelley Law Firm
1200 19th Street N.W.
Suite 500
Washington, DC 20036

John McLaughlin
KMC Telecom, Inc.
1755 North Brown Road
Lawrenceville, GA 33096

MediaOne Florida Telecomm.
c/o Laura L. Gallagher
101 E. College Avenue
Suite 302
Tallahassee, FL 32301

Herb Bornack
Orlando Telephone Co.
4558 S.W. 35th Street
Suite 100
Orlando, FL 32811-6541

Carolyn Marek
Time Warner Telecom of Florida
233 Bramerton Court
Franklin, TN 37069

Morton Posner
Allegiance Telecom, Inc.
1150 Connecticut Ave. N.W.
Suite 205
Washington, DC 20036

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996	)	Docket No. 000075-TP

VERIZON FLORIDA INC.'S RESPONSES TO
STAFF'S FIRST SET OF INTERROGATORIES (NOS. 1 – 23)

Provide the name, address, and relationship to the Company of each person providing answers to the interrogatories and identify which questions(s) each person answered.

Response:

Interrogatory Nos. 1-8, 10, 11, 18, 22(g)-22(i), and 23
Dr. Edward C. Beauvais
Director – Economic & Regulatory Policy
Verizon Communications
600 Hidden Ridge
Irving, TX 75038

Interrogatory Nos. 12-17, and 19-21
Howard Lee Jones
Group Marketing Manager – Wholesale
Verizon Communications
600 Hidden Ridge
Irving, TX 75038

Interrogatory Nos. 9, and 22(a)-22(f)
Adolf Andrzejewski
Manager – Regulatory
Verizon Communications
One Verizon Way
Thousand Oaks, CA 91362

1. Please refer to direct testimony of Edward Beauvais, page 10, beginning at line 9.

   a) Is witness Beauvais suggesting that a factor could be developed to estimate ISP-bound traffic that is analogous to a Percent-Interstate-Usage (PIU) factor? If the response is affirmative, please respond to the following.

Response:

Dr. Beauvais has suggested that if reasonable estimates of the holding times for both traditional "voice" traffic and "Internet-bound" traffic can be obtained, then it is possible to develop a factor which estimates the aggregate percentage of traffic bound to the Internet over a trunk containing these two types of traffic. This is similar in purpose to a PIU factor, although Dr. Beauvais did not express it in those terms at the referenced lines in Staff's question.

b) For comparative purposes, please describe the PIU factor and discuss the similarities to and differences from the factor that is suggested by witness Beauvais.

Response:

In many jurisdictions, the prices established in a carrier's switched access tariffs differ as between intrastate and interstate traffic. Thus, it is necessary to separately identify that usage which is subject to the application of intrastate tariffs and that usage subject to interstate tariffs. Rather than attempt to identify each call each month, carriers have agreed to approximate the relative amount of usage by a PIU factor. As an example, AT&T might state that its PIU for traffic delivered to Verizon in Florida is 80%; that is, 80% of the traffic is interstate in nature, with the remaining 20% both originating and terminating within the state of Florida.

By adopting this approach, the individual call records (both originating and terminating numbers) do not need to be addressed on a monthly basis. In so doing, the costs which would otherwise be incurred individually to identify such traffic by its jurisdiction are avoided.

The approach that Dr. Beauvais stated could be employed to disaggregate the Internet-bound traffic from other traffic on the same trunk is similar in concept. The purpose is to find a method that can estimate, without an unreasonable degree of error, the amount of Internet-bound traffic versus other more traditional traffic. In making such an estimate, again the idea would be to minimize the cost of attempting to identify each call on an individual basis.

As in the case of the PIU, this potential factor would be applied for a mutually agreed upon period of time. Likewise, the estimates could be subject to audit if either party questions the results.

Perhaps the most significant difference between the PIU and the potential Percent-Internet-Usage (PINU) is to be found in what is attempting to be

measured. In the case of the former, it is the relative geographical origination and destination of the call; in the latter, it is the identity of the party to which the call is being made. It can also be argued that if one considers Internet-bound calls as jurisdictionally interstate, one is also attempting to perform a jurisdictional allocation as well, even if one does apply that allocation to the pricing process.

c) Are there other factors that are routinely used in the telecommunications industry to estimate traffic for compensation purposes?

Response:

In one sense, the use of estimates is pervasive in the telecommunications industry. One only needs to examine the typical cost study, TSLRIC or otherwise, to find numerous estimates of traffic quantities, holding times, customer distributions, etc. So the use of estimates is not unique to this policy option. Likewise, jurisdictional separations relied on a great deal of factors historically – SPF, DEM, SLU. Some of the effects of these factors are still felt in the telecommunications industry today. Clearly, these traffic estimation factors have very much affected the compensation flowing in the industry today. However, whenever possible and cost effective, reliance should be placed on actual observations.

d) If the response to c) is affirmative, please describe such factors.

Response:

See above response to 1(c).

e) If a factor were to be used to separate ISP traffic, does Verizon advocate the use of carrier-specific factors, that is, should each carrier develop its own factor or should an industry-wide factor be developed?

Response:

Dr. Beauvais would advocate that, to the extent possible, the factors should be as specific to the carrier-pairs as possible. That could be done by examining the realized holding time on each trunk or trunk group connecting each pair of carriers exchanging traffic. Thus, even if the same voice holding time and the same Internet-bound holding time were employed as inputs, to the extent that the realized holding time was different, the estimated amount of Internet-bound traffic would differ as well. Clearly, it is possible for different ALECs to be serving customers with different characteristics, given their differentiated marketing approach. Thus to the extent feasible, the results

should be applied as carrier-pair specific as possible.

f) How often would such a factor need to be updated assuming that Internet traffic continues the pattern of rapid growth that appears to have occurred in recent years?

Response:

Verizon agrees with the assumption in the question that Internet traffic has grown rapidly in recent years. This factor would, of course, argue for relatively frequent adjustments of the traffic holding time estimates, at least for the ISP-bound traffic. The voice holding times appear to have been relatively unchanged for a substantially longer period of time. Indeed, as Dr. Beauvais pointed out in his testimony, the confidence interval for the voice traffic estimated by Brandon in Illinois in the early 1980s still encompasses the mean realized in California in 1999.

If one follows the carrier-pair approach sketched above, then the resulting estimate of Internet-bound traffic would change monthly, depending upon the realized holding time on the trunk/trunk group observations. Of course, those in turn depend upon the mean estimate of the holding time for each of the two types of traffic being carried on that intercarrier trunk. Given the apparent growth in traffic bound to the Internet and the amazing development of alternative applications on the Internet, Verizon would suggest that the holding time assumptions should be well-examined at least every six months, if not more often.

2. In the direct testimony of Edward Beauvais, page 11, beginning at line 11, he states that bill-and-keep should be applied, in the short-run, to all "local" traffic.

a) Has Verizon advocated a bill-and-keep approach for exchange of local traffic in the past?

Response:

To put the question into context, Dr. Beauvais has stated that until such time as the Commission is able to address the intimately related issue of rate rebalancing of end user rates in light of the volume of traffic created by the development of the Internet, and given the overwhelming subscription to flat-rated local service, then if the Commission considers Internet-bound traffic to be "local," it should adopt a bill and keep mechanism. Since prior to the passage of the Telecommunications Act of 1996, Dr. Beauvais has consistently argued on behalf of GTE and now Verizon for the efficient pricing of telecommunications services, including potential reciprocal compensation

for the exchange of traffic among rival local exchange carriers. Likewise, he has stated repeatedly to this Commission and others that the issue of intercarrier compensation cannot be addressed in isolation from other prices. If the FPSC considers Internet-bound traffic to be local for pricing purposes, then the costs associated with that traffic must also be considered local and reflected in the prices seen by the end users with the demand for such traffic. This position has not changed.

As Dr. Beauvais has pointed out, however, the public policy associated with this rationalization of local prices in the face of competitive entry does have consequences. One of those is the necessity to revise local prices to accommodate the vastly increased usage brought about by the development of the Internet and its access on a dial-up basis. If residential end user rates cannot be altered to accommodate this development, then a practical response is the adoption of bill and keep.

b) If the response to (a) is negative, please explain why Verizon is now advocating a different position.

Response:

As stated in (a), Verizon has not changed its position. There are factors, however, which have changed since prior to the passage of the Act when Verizon first formulated its policy on reciprocal compensation. First is the development of the Internet on a commercial basis. In 1995, it is unlikely that any party expected the volume of minutes that are currently observed on the switched network in 2001. The growth has clearly placed upward pressure on local rates. In addition, it is unlikely that even the ALECs anticipated the marketing strategy that they have followed in response to the development of a usage-sensitive, reciprocal compensation plan. If they had done so, then we would not have seen their advocacy for a bill and keep approach at that time.

The market success of many of the ALECs in targeting ISPs and other large volume business users implies that any increased pressure on local rates resulting from the production and compensation costs associated with Internet-bound usage will be largely seen by customers of the ILECs. This is largely a result of the incentives I have set forth in my testimony. The amount of upward pressure on residential rates is a function of both the quantity of traffic and the compensation costs to be paid. Given the volumes involved, Verizon has slightly changed emphasis to focus on the bill and keep option, as no changes have occurred in the past half decade to adjust the end user rates to accommodate the increased usage levels and associated compensation payments.

3. In the direct testimony of Edward Beauvais, pages 12 and 13, he discusses residential holding times for measured service. Are holding times for local measured service higher or lower than holding times for non-measured service?

Response:

The holding time under a usage-sensitive local rate structure in comparison to a flat- rate structure/zero incremental usage price depends upon the elements in that structure. That is, a usage-sensitive rate structure that charges on a per call basis only may have a slightly different impact than a structure which charges on both a call set-up basis and a subsequent minute of use basis. In the former case, there is no price incentive at the margin to change the consumer's behavior, given the call has been made, so one would expect virtually no change in the holding time of a call between a flat-rated structure and a measured structure.

Under a set-up and duration structure, the resulting mean holding time depends upon the relative price responses on the quantities demanded of both calls and minutes. Results indicate that only a very slight change in the holding time can be anticipated, since the quantities demanded of both calls and minutes are reduced in approximately the same proportion. Under either rate structure, flat or measured, one would expect the holding time for residential calls, exclusive of the Internet-bound calling, to be in the range provided in Dr. Beauvais' direct testimony.

4. In the direct testimony of Edward Beauvais, page 13, beginning at line 13, he states that "Both published data and Verizon's own observations demonstrate that the average holding times for ISP-bound traffic exceed those of voice traffic by up to 10 times."

a) Please identify the published data that is being referred to.

Response:

The sources of that information were referenced in Dr. Beauvais' direct testimony itself. These include:

- Hewlett-Packard, "GTE Internet Service Provider Characterization," Oct., 1997;
- Nielsen//NetRatings, April, 2000;
- Verizon California ISP CyberPop Utilization Study, 1st Qtr 2000;
- Harris Poll, USA Today, June 1, 1999;
- GVU 10th WWW User Survey, Oct.-Dec. 1998

b) What are the holding times that Verizon has observed that support this statement, other than the Coast-to-Coast example provided in the testimony?

Response:

The statement is that average holding time for ISP-bound traffic exceeds that of voice traffic by up to 10 times. If the average holding time is roughly four minutes for voice traffic, then the Coast-to-Coast study results are about ten times that value at 42 minutes. Other study results suggest that the average holding time of ISP-bound traffic is in the range of 30 minutes per call, or roughly seven times the holding time of voice traffic. AOL has reported an average daily usage of approximately 60 minutes of use per day. If that is based on a single call, then the multiple would be even higher than the ten-fold Dr. Beauvais stated in his direct testimony. It is more likely, however, that the AOL usage is the result of at least two calls per day. The range of these results is why the statement suggests holding times of "up to" an order of magnitude multiple of the voice holding time exclusive of ISP-bound traffic.

5. In the direct testimony of Edward Beauvais, page 21, beginning at line 6, he uses the following terms: production function; cost function; scope; and scale. Please define each of these terms as they are used in the testimony and provide examples of each.

Response:

Production function: The relationship between the output of a good(s) or service(s) and the inputs (factors of production) required to make that good(s) or service(s). Formally, the production function has the general form:

$$Q = f(L, K, t, \text{etc.}),$$

where Q is output, L is labor, t is technology, and etc. represents other inputs which may also be relevant.

As an example, the number of calls produced is a function of the switching capacity, labor in the form of operators, switch maintenance, the technology involved, etc. The production function for a telecommunications company typically would involve both multiple outputs and multiple inputs.

Cost function: The cost function describes the relationship between output(s) produced and the minimum possible cost of that output. Technology and input prices are taken as given as parameters in specifying cost functions. Formally, the cost function has the general form:

$$C = g(Q; PL, PK, t),$$

where C is the total cost, Q is the output, PL is the price of labor, PK is the

price of capital, and t represents technology.

As in the case of the production function, a telecommunications cost function has numerous outputs rather than a single quantity. As an example, cost models used to provide the Commission with estimated costs specify a production technology and then provide an estimate of the cost of many outputs. Unlike a cost function, these estimates are typically made for only a single set of outputs supplied.

Economies of Scale: These refer to reductions in the average cost of a product in the long run, resulting from an expanded level of output. Economies of scale are the increases in input productivities that result from division and specialization of labor and savings in materials. As a simplified example in telecommunications, it is clear that to double the output of telephone calls does not require a doubling of the number of telephone poles or conduit space to accompany the expansion of switching capacity.

Economies of Scope: These refer to the reductions in the cost of producing multiple products out of shared means of production. As an example, it is more efficient to provide vertical services, such as call-forwarding, out of the same equipment as is used to provide the switching services than to have vertical services provided from their own dedicated plant. Thus, by expanding the scope of the firm's offering where sufficient demand exists, it is able to reduce the cost of its operation relative to providing the outputs on a stand-alone basis.

6. In the direct testimony of Edward Beauvais, page 22, beginning at line 17, he states that a usage-based compensation system "automatically results in prices for local usage set at a level below the incremental cost of providing the end to end call." Please describe how this occurs.

Response:

To put the question in context, the referenced price/cost imbalance results when a flat-rated structure is present which has not been adjusted to take into account the increased costs associated with increased "local" usage. Under a flat-rated end user structure, the incremental price for an additional call or additional minute that is "local" under the Commission's definitions is zero. This would also apply to calls or minutes that are passed to an interconnecting ALEC and for which reciprocal compensation is to be paid on a minute of use basis. The originating carrier receives zero incremental revenue, yet must pay a positive marginal cost for that minute. Hence, in the short run, the originating carrier is worse off financially for having carried the traffic.

The situation contrasts with a usage-sensitive structure in which the incremental price for a call is at least sufficient to generate incremental revenues greater than or equal to the incremental costs incurred.

At the very least, therefore, to avoid this pricing of incremental minutes below their incremental costs, including compensation costs, those expected costs must be incorporated into the prices seen by the end users with a demand for those calls. This can be done on a flat-rated basis or a measured service basis. If done on a flat-rated basis, it may be necessary to increase the prices on a periodic basis to account for the increasing demand for usage, including the accompanying increase in reciprocal compensation payments.

7. Please describe the difference in costs between originating and terminating local traffic. Why is there a difference?

Response:

Within a given switch, the costs for handling a minute of use for either origination or termination would be equal. If more than a single switch is involved and one of those switches has been configured primarily to handle converging traffic, it may well be the case that the cost of a minute is less than it would be if the receiving switch had been configured to handle a more traditional mix of customers that both originated and terminated similar volumes of traffic. As Verizon understands the switch configuration, this is due to the economies of handling the large volume of traffic on a trunk-to-trunk switching basis. This would then give rise to a difference in cost between originating a call and terminating that call.

8. In the direct testimony of Edward Beauvais, page 25, beginning at line 17, he describes call set-up and duration costs.

a) Are the examples used in the testimony based on actual costs, or are they purely hypothetical?

Response:

The numbers used in the testimony are examples intended to approximate the costs that might be incurred and the prices that are to be paid. They are not precise values. The reciprocal compensation price of $0.0043 per minute cited on page 26, line 7 is one of the prices called for in an interconnection agreement between Verizon and one of the ALECs.

b) How would terminating costs differ from the originating costs used in the example?

Response:

The example provided assumed the existence of multiple switching of the calls between the ILEC's customer and the ALEC routing the traffic on to the ISP. Assuming that the ALEC has configured its switch principally to handle the large volume of trunk-to-trunk traffic associated with serving large volumes of ISP-bound traffic, along with more modest amounts of other customers, it is likely that the ALEC's cost of serving such minutes through its switches will be less than the costs incurred by the ILEC in originating that call over a switch configured to handle the more traditional mix of customers and traffic. That is, the ALEC switch is likely to have a much higher proportion of the switch configured to handle large volumes of trunk-to-trunk switching that an ILEC end office would have. Given the very large number of minutes of demand placed on that switch, the result is likely a lower cost per minute of use for such a function in comparison to the originating switch.

The ALECs assert the ability to use the cost studies prepared by the ILECs, rather than perform their own and provide them to the Commission. I agree that they can do so. But the switch configuration cost estimate used should be as close as possible to that switch configuration being employed by the ALECs. Given the large volume of trunk-to-trunk traffic being handled by most ALECs, the closest proxy for that cost estimate currently available for Verizon is the cost of switching a minute of use through a tandem switch. It would also be possible, in principle, for Verizon to adopt a long run view and to model the cost of configuring and operating a switch designed to handle the same types and volumes of traffic as might be expected of an ALEC. This, however, has not been done and would likely require that the ALECs provide details of their customer mix and traffic volumes that they might prefer not to make available.

9. In the direct testimony of Edward Beauvais, page 27, beginning at line 13, he discusses residential local service rates in Florida.

   a) What is the average local service bill for Verizon's local customers, including all local revenues, such as Caller ID?

Response:

Defining local service as the sum of the federal subscriber line charge, local access monthly recurring charges, related vertical services, applicable network features, and local measured service, the average monthly residential local bill was $22.51 in January 2001.

   b) How many Verizon residential customers also subscribe to additional lines?

Response:

As of January 2001, 187,091 residential customers, or 13% of the residential base in Florida, subscribed to more than one access line.

c) What is the average revenue Verizon receives for each of these additional lines?

Response:

Considering all of the components the Commission might include, as listed in subsection (a), as of January 2001, the average monthly local revenue received for residential customers with more than one access line was $23.58 per access line.

10. In the rebuttal testimony of Edward Beauvais, page 15, beginning at line 3, he discusses "ordinary" traffic.

a) Please define the use of the word "ordinary" in the context it is used in the testimony.

Response:

The term "ordinary" is meant to convey traffic of the more traditional type found in the public switch network such as calls to friends, family, the dentist, or the ever-present pizza shop in this case. It would include short holding time for time and temperature calls as well as long holding time calls, such as a conference call between an attorney and a client. It was intended solely to distinguish that type of traffic from Internet-bound traffic and that is why the term was put in quotations in my rebuttal testimony.

b) Is there any type of traffic besides ISP-bound traffic that would not be considered ordinary?

Response:

See response to 10(a).

c) If the answer to (b) is affirmative, please describe such traffic, and explain why you believe it is not ordinary.

Response:

See response to 10(a).

d) How would the traffic described, if any, be factored into the formula presented on page 15 of witness Beauvais' rebuttal testimony?

Response:

See response to 10(a).

11. In the rebuttal testimony of Edward Beauvais, page 20, beginning at line 5, he discusses relative prices. If possible, please provide a numerical example.

Response:

The example provided in Dr. Beauvais' direct testimony beginning on page 25 and continuing through page 27 is intended to be just such an example of the misalignment of relative prices between basic local exchange service and reciprocal compensation. Note that such relative prices have nothing to do with the relative price positions of vertical services such as Caller ID. The relative prices of concern here are for "local" usage and for any inter-company compensation for such usage. Thus, in the example, it can be readily shown that the costs of switching and routing increased usage attributable to Internet-bound traffic exceed the revenue that customers are paying for such service.

12. In the direct testimony of Howard Lee Jones, page 3, beginning at line 3, he discusses cost differences between ILEC and CLEC networks. What specifically are those cost differences? If possible, please provide a numerical example.

Response:

ALECs have not provided the level of network detail necessary to definitively quantify these cost differences. However, some factors that could be expected to drive the cost differences discussed by Mr. Jones are:

a) Line concentration vs. trunk-served central office configurations. ILEC networks are dominated by line concentration arrangements, while ALEC networks which serve primarily ISPs or large business customers would be dominated by trunk-served (non-line concentrated) arrangements.

b) Collocation of customer ISPs vs. loop-served ISPs. ALECs offer collocation of ISPs, which would tend to reduce the ALECs' loop costs.

c) NXX trunk group switching vs. ten-digit number analysis by switching equipment. Given large volumes of traffic switchable to a dedicated NXX

(where no other customers are assigned that NXX) ALECs can reduce the switch processing costs for digit analysis. ILECs do not generally dedicate NXXs to specific customers and therefore must analyze NXX-XXXX digits for almost all calls.

d) The ALECs' networks are designed to handle trunk concentrated volumes of converging traffic in a more efficient manner than the ILECs, with their ubiquitous, distributed traffic network configuration.

To the extent possible (in the absence of ALEC cost data) Dr. Beauvais has provided a numerical example reflecting network cost differences in his direct testimony at pages 26-27.

13. In the direct testimony of Howard Lee Jones, page 3, beginning at line 13, he discusses networks.

a) What network modifications has Verizon implemented due to changes in load patterns in the network brought about by Internet-bound traffic?

Response:

Verizon has augmented its interoffice carrying capacity at a rate sometimes reaching eight times its line growth. Interoffice trunking growth has been 35%, with 5-8% line growth based on trends over 1996-97. Usually, the line growth rates would correspond with the growth rates in interoffice traffic; the difference is due to the fact that customer line counts have not increased dramatically but those customers are increasing use of the network and its inter-office trunks as they incrementally add internet usage to the base of voice usage.

b) How has this impacted Verizon's costs for handling traffic?

Response:

Use of the network for internet-bound traffic, in addition to the relatively stable pre-existing voice traffic, has increased costs substantially. In order to maintain acceptable grades of customer service, Verizon has had to expend funds to balance end-user line frames between internet and non-internet users and, as noted above, substantially augment inter-office transmission facilities. Verizon does not have Florida-specific cost data; however, on a nationwide basis for the former GTE operating companies, Verizon estimated it spent $181.3 million for such network upgrades in 1998. (Reference ex parte to the FCC in CC Docket No. 96-263, dated 6-12-97.)

c) Have such costs increased or decreased on a per minute basis? Please provide a dollar figure.

Response:

On a per-minute basis, costs have probably remained about the same because augmentation based on increased minutes does not substantially alter per minute cost. However, since expenditures to augment the network are not recovered on a usage basis for ISP-bound calling, Verizon has not received revenues to recover these expenditures.

14. For the purposes of this interrogatory, refer to the differences in ISP traffic described in the testimony of Howard Lee Jones.

a) Would it be appropriate for the local services purchased to provide service, such as B1 or ISDN services, to be placed in a separate class of service? Please explain why or why not.

Response:

B1 and ISDN are already separate classes of service, with separate rates. To the extent that the question implies some type of separate classification for services associated with ISP-bound calls, such a classification would be impractical and inadvisable. Changing service classifications will not alleviate the problems associated with compensation for ISP-bound calls.

b) If the response to (a) is affirmative, explain how you would accomplish such a task.

Response:

See response to 14(a).

15. In the direct testimony of Howard Lee Jones, page 3, beginning at the bottom and continuing on to page 4, he describes infrastructure used to handle traffic.

a) Does witness Jones' position assume that CLECs are designing networks only to carry Internet traffic?

Response:

Verizon expects that many ALECs are designing networks to carry large volumes of Internet Traffic, but it does not assume that all ALECs are designing networks to carry only Internet traffic. The discussion on pages 3 & 4 of the Jones testimony describes the differences in network design

expected given disparate traffic characteristics.

b) If the response to (a) is affirmative, please describe the evidence you have to support this position.

Response:

Mr. Jones' position is based on the traffic pattems observed in Verizon's bills from ALECs for reciprocal compensation. The holding time per call and the one-directional nature of the traffic indicate that an ISP market segment is responsible for this traffic. Also, the ALECs have filed testimony in this proceeding admitting that they have concentrated their marketing efforts on the ISP segment. See Dr. Selwyn's direct testimony, p. 60: "CLECS that have concentrated their marketing efforts thus far on customers that receive calls may be attempting to achieve economies of specialization, precisely to offset the cost disadvantages associated with relatively small scale and limited scope." Also, Dr. Selwyn notes on p. 68: "To the extent that certain CLECS are deploying advanced switching technologies designed to efficiently provide high-volume inward calling services, they simply are responding to the economic incentives created by the FCC's symmetry rule."

16. Please refer to the direct testimony of Howard Lee Jones, page 4, beginning at line 4. How would Verizon perform a cost determination to recognize different network designs?

Response:

The only way to perform an accurate cost determination would be for the Commission to require the ALECs to present their network schematics for review. Verizon is often required to produce network information; there is no reason why the ALECs should not be under a similar obligation. An independent party, or Verizon, could input equipment costs from the ALEC network schematics into a cost model and produce cost data for these network designs.

17. In the direct testimony of Howard Lee Jones, page 4, beginning at line 13, he states that there are a number of ways the Commission could recognize differences between ISP traffic and voice traffic. Only one way is mentioned. Please list the other ways to which he is referring.

Response:

Among other alternatives, the Commission could review the ALECs' network structures to determine a separate cost model for ALEC ISP-bound network minutes. The Commission could also recognize that ALECs which provide

service to ISPs employing SS7 Signaling Gateways, rather than load bearing circuit switching equipment, are not due any reciprocal compensation because the service they provide is not a switching function. The Commission should compel ALECs to prove that their costs are the same as the ILECs, as they claim. If they are not—and Verizon does not believe they are—then the Commission should recognize these cost differences in any reciprocal compensation scheme it may devise.

18. Does Verizon believe CLECs should pay higher termination charges to ILECs than what the CLECs receive? If the response is affirmative, please explain what factual evidence you have to support this conclusion.

Response:

No. Verizon's position in this docket is that if the Commission establishes any reciprocal compensation mechanism, it should be bill and keep, given the Commission's inability to rebalance local retail rates under current Florida Statutes.

In addition, the Telecommunications Act calls for bilateral negotiation between carriers to reach an agreement. Verizon does not believe that it is at all likely that such an agreement could ever be reached if it were to insist upon non-symmetric payments for traffic, even if such charges were appropriate based on the costs likely to be incurred.

19. In the direct testimony of Howard Lee Jones, page 5, beginning at line 24, he states that "after an end user originates a call on a line switched basis, most carriers switch Internet-destined calls in trunk-to-trunk, or tandem-like, configurations simply because it is more efficient with the call volume and holding time involved."

a) Does Verizon use such a configuration for Internet-destined calls?

Response:

Yes. When a customer makes an Internet-bound call on a dialup basis, Verizon routes the traffic onto an interoffice trunk as soon as possible.

b) If the response to (a) is affirmative, how does Verizon determine which calls are Internet-destined?

Response:

For traffic switching and routing purposes, Verizon does not have to make this determination, as an ISP customer's order for trunk-based ISDN PRI

automatically makes the traffic trunk-to-trunk by default.

c) Please state what evidence you have that shows other carriers use such a configuration.

Response:

The evidence would include data on traffic ratios and holding times (as discussed in Dr. Beauvais' direct testimony), as well as trade show and web site information. Again, ALECs have been unwilling to reveal their network configurations in detail (including equipment, vendor, and costs). The Commission should seek such information.

20. In the direct testimony of Howard Lee Jones, page 7, line 21, he uses the term "subtending receiver."

a) Please define "subtending receiver."

Response:

Verizon assumes the question refers to the following clause on p. 7 of Mr. Jones' direct testimony: "If a carrier is a subtending carrier of another—in other words, a receiving entity...." In the context of Mr. Jones' discussion as to whether reciprocal compensation should be limited to circuit-switched technologies, a subtending carrier—or receiver—of ISP traffic would be a carrier who received as a majority of its traffic ISP-bound calls from another carrier. This type of carrier could utilize non-circuit switched modem termination equipment and bypass the receiving carrier's circuit switch altogether. The terminology of "subtending" is adopted from the typical use of the word for end offices that are served from ("subtend") another carrier's local tandem circuit switch.

b) Is Verizon a subtending receiver?

Response:

No, not in the manner described in 20(a) above.

c) What evidence do you have that other carriers are subtending receivers?

Response:

ALECs will typically connect to an ILEC tandem and the traffic flow will on balance be received by the ALEC rather than originated by the ALEC to the

ILEC tandem.

d) If carriers perform such a function, is the traffic handled in that matter separated from circuit-switched traffic in a manner that makes it readily identifiable?

Response:

Yes. ISP traffic that is directly connected to modem equipment is either separable by the straightforward use of NPA/NXX combinations for ISP-bound only traffic or SS7 Signaling Gateway devices used by the ALECs to signal the ILEC Tandem as to what trunks to place certain calls upon. All the ALEC must know to accomplish the traffic separation is the numbers of their ISP customers.

e) Can such functions be used to carry forms of traffic other than ISP traffic?

Response:

No. In this configuration, no voice or other commonplace type of traffic will function properly. Voice-over-IP traffic, for instance, requires codec (that is, coder/decoder) modem devices, which are enhanced versions of the ISP modem architecture.

f) If the response to (e) is affirmative, please explain what forms of traffic would be handled in such a manner.

Response:

See response to 20(e).

g) Would the traffic described in (f), if it is not ISP traffic, be subject to reciprocal compensation arrangements? Why or why not?

Response:

See response to 20(e).

21. In the rebuttal testimony of Howard Lee Jones, page 2, line 8, he states that "many ALECs have direct interfaces from the ILEC switch into the RAS (Remote Access Server) devices at their interconnection facility."

a) What evidence does Verizon have to show the amount of traffic that is handled in such a manner?

Response:

Two presentations of NaviNet indicate that at least one Dial-up provider is promoting the network configuration of direct interfaces from ILEC switches to RAS devices. The March 1, 2000 presentation indicates that NaviNet has had this "Switch Bypass" goal since July 1997. "NaviNet Bypass Deployment A" meets the goals contained in the remainder of the document, whereas Deployments "B and B" and "C" do not meet the goal of "fewer switches in call path" on page 6 of the presentation. A Nortel presentation from the Fall 1999 also shows direct interface configurations. These documents are included in the response to Staff POD request number 8.

Verizon cannot definitively assess the amount of traffic handled in this manner, but believes that substantial volumes of traffic are directly interfaced from ILEC switches to RAS devices. Again, such information could best be obtained by the Commission from the ALECs.

b) How does the handling of traffic in this manner impact the costs of terminating traffic?

Response:

Per the 2/7/01 statement of Global NAPs, handling traffic in this manner reduces cost by 90%. The website link and a summary of the statement are included in the response to Staff POD request number 8.

c) Does Verizon receive traffic from ALECs who use RAS devices?

Response:

No. It is very unlikely for Verizon to receive traffic from ALEC RAS devices because ISP RAS devices do not originate traffic.

d) If the response to (c) is affirmative, what percentage of traffic received from ALECs is received in such a manner?

Response:

Not applicable.

e) By what means could the Commission determine to what extent traffic is handled in such a manner?

Response:

The Commission should obtain network schematics from each ALEC and ILEC with the traffic volumes to assess the volume of this non-switched traffic. Once the carriers who use this configuration are identified, they should be compelled to provide back-up for all reciprocal compensation charges, proving that the billed minutes were circuit-switched.

22. AT&T witness Lee Selwyn states in his direct testimony, page 16, beginning at line 11, that he disagrees that total local usage per residential access line has increased significantly over time because of the growth of ISP-bound calls. So that staff may determine whether usage per access lines for not only residential, but also small business, has increased, please provide the average number of minutes of use per access line, for the years 1996 through 1999. Please provide separate responses for the following categories:

a) total access lines (all local services);

b) residential flat rate;

c) residential measured;

d) single-line business flat rate; and

e) single line business measured services.

f) For each of the above categories, show the calculations used to derive the response, such as MOUs/access lines or other formulae.

g) If your responses show an increase in MOUs per access line over the requested time period, to what do you attribute the increase?

h) If your responses show a decrease in MOUs per access line over the requested time period, to what do you attribute the decrease?

i) For your responses to g) and h) what evidence do you have to support your conclusion?

Response:

As has been pointed out, the vast majority of Verizon customers take local exchange service under a flat-rated arrangement. Accordingly, local usage is not recorded on an ongoing basis for these customers. Likewise, for those customers who select the usage-sensitive service, it would not normally be anticipated that such customers would remain on a usage plan once they

become users of the Internet when a flat-rated option is available. That is, Verizon assumes its customers will behave rationally in their own interest in selecting optional service arrangements, given the prevailing prices and their expectations about their usage characteristics.

While witness Selwyn disagrees that usage has increased, he does point out in his own example that Internet usage is estimated to be in the range of 1500 minutes of use per month – a number which is much larger than previously generated by the average residential consumer.

Finally, Verizon does not record usage on flat-rated service – it only records usage that is billable. Further, Verizon's financial systems record only generic primary class-of-service categories (e.g., Business, Residence, Company official, etc.). Exact line type statistics require customer specific analyses that are not available for the test periods requested.

With this as background:

a) total access lines (all local services);

Response:

Verizon does not measure and record the usage data requested.

b) residential flat rate;

Response:

Verizon does not measure and record the usage data requested.

c) residential measured;

Response:

Verizon does not measure and record the usage data requested.

d) single-line business flat rate; and

Response:

Verizon does not measure and record the usage data requested.

e) single line business measured services.

Response:

Verizon does not measure and record the usage data requested.

f) For each of the above categories, show the calculations used to derive the response, such as MOUs/access lines or other formulae.

Response:

Verizon does not measure and record the usage data requested.

g) If your responses show an increase in MOUs per access line over the requested time period, to what do you attribute the increase?

Response:

Verizon does not measure and record the usage data requested.

h) If your responses show a decrease in MOUs per access line over the requested time period, to what do you attribute the decrease?

Response:

Verizon does not measure and record the usage data requested.

i) For your responses to g) and h) what evidence do you have to support your conclusion?

Response:

Verizon does not measure and record the usage data requested.

23. If the FCC issues an order that is permissive with regard to any mechanism it prescribes for ISP traffic compensation, that is, an order which allows states to determine how termination of ISP traffic should be compensated, what action do you believe this Commission should take?

Response:

Beginning on page 28 of his direct testimony, witness Beauvais offers Verizon's view as to how the Florida Commission should proceed, assuming that the FCC leaves the matter up to the states and further assuming that this Commission considers such ISP traffic to be "local":

"Assuming (contrary to Verizon's view) that the Commission finds it has the authority to adopt an inter-carrier compensation mechanism for ISP-bound calls, then in the short run, I recommend that the Commission adopt an approach to intercompany compensation that follows the price structure in place for end users for that type of call. That is, if the Commission is to treat the call to the ISP as a local, then so long as the end users are billed on a flat-rate basis for their local service, then the inter-company exchange of traffic should also be billed on a non-traffic sensitive basis. A bill-and-keep approach meets this criterion, and will avoid the potentially serious economic distortions in the price of local service that would result from end user prices being set below the level of incremental costs, including compensation costs." (Beauvais Direct, p. 28)

Continuing on in his summary, witness Beauvais states:

"The briefest summary I can provide to the Commission in terms of public policy guidance is quite simple: if the Commission is determined to establish an inter-company compensation structure, then that structure should match the rate structure faced by the end user customers. The optimal long run solution would be an originating responsibility plan; a sound short-run plan, given circumstances in Florida, is a bill and keep plan." (Beauvais Direct, pp. 28-29)

If the Commission decides that under a permissive guideline from the FCC that the Internet-bound traffic is interstate in nature, then such traffic can be separated out from the other traffic as best as can be practically done and no reciprocal compensation paid on such traffic would be required.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996	)))))	Docket No. 000075-TP

VERIZON FLORIDA INC.'S RESPONSES TO
STAFF'S FIRST REQUEST FOR PRODUCTION OF DOCUMENTS (NOS. 1 – 8)

DOCUMENTS REQUESTED

1. Please provide any and all documents in your possession or under your control that you identified in response to staff interrogatory 4.

   Response:

   Provided are the following:

   "GTE Internet Service Provider Characterization: Internet Service Provider Switch Utilization Study in Southern California," Bob D'Eletto, Hewlett-Packard, October 18, 1997. (Bates Stamped Document Nos. 3 –61)

   Discovery response containing summary of data from the "California ISP CyberPoP Utilization Study," first quarter, 2000. (Bates Stamped Document Nos. 62-63)

   A graphical summary of the results of the Harris poll, USA Today, June 1, 1999. (Bates Stamped Document No. 64)

   Website reference to the GVU 10th WWW User Survey:
   http://www.cc.gatech.edu/gvu/user_surveys/

2. Please provide any and all documents in your possession or under your control that you identified in response to staff interrogatory 15(b).

   Response:

   Dr. Lee Selwyn, Direct Testimony, pp. 60 and 68
   (Bates Stamped Document Nos. 65-66)

3. Please provide any and all documents in your possession or under your control that you identified in response to staff interrogatory 19(c).

   Response:

   The documents identified in response to interrogatory 19(c) were referenced in Dr. Beauvais' direct testimony. These documents have been produced in response to other requests in this set.

4. Please provide any and all documents in your possession or under your control that you identified in response to staff interrogatory 20(c).

Response: No responsive documents

5. Please provide any and all documents in your possession or under your control that you identified in response to staff interrogatory 22(i).

Response: No responsive documents

6. Please refer to the direct testimony of Edward Beauvais, page 14, line 1. Provide any and all calculations, worksheets, or other documents used to derive the figures shown.

Response:

The underlying data consists of approximately 38,700 individual call records provided by Coast-to-Coast, a CLEC operating in Michigan, from GTE customers, at that time, to ISPs served by Coast-to-Coast for the month of July, 1999. These records contain the calling number and the called number, the date of the call, and the duration of the call. Due to the size and proprietary nature of some of the information on the file, a summary of the information is provided below:

Total Calls	38,700
Total Minutes of Use	1,638,914.8
Mean Holding Time	42.349

Distribution of Calls:	
Less than 5 Minutes	16504
Between 5 and 30 Minutes	11574
Between 30 and 60 Minutes	4785
Between 60 and 120 Minutes	3044
Between 120 and 180 Minutes	1005
Between 180 Minutes and 600 Minutes	1593
Between 600 Minutes and 1440 Minutes	147
Greater Than 1440 Minutes	48

Based on the 38,700 individual observations, the standard deviation = 83.332. Standard error of the mean = 183.332 / 196.723 = 0.932 where the numerator = the standard deviation; the denominator = square root of the sample size.

For a 99% confidence interval with essentially unlimited degrees of freedom, the area in the rejection region is given by the critical value of 2.576. To form the 99% confidence interval, multiply the critical value by the standard error of the mean to obtain:

42.349 +/- (0.932)*(2.576)
42.349 +/- 2.401, yielding the approximate confidence interval provided on page 14, line 1, which will be corrected to $39.95 \leq \bar{x} \leq 44.75$

This correction does not change any of the conclusions or subsequent statements in Dr. Beauvais' testimony.

7. Please refer to the direct testimony of Edward Beauvais, page 14, lines 20 and 21. Provide any and all calculations, worksheets, or other documents used to derive the figures shown.

Response:

The calculations are quite straightforward for the coefficient of variation for both the voice and ISP-bound samples. The coefficient of variation is given by the standard deviation of the sample divided by the sample mean.

For the voice sample, the average is approximately 4.9 MOU; the standard deviation based on the grouped data is 11.8, yielding a coefficient of variation of approximately 2.4, as reported on line 20.

As described above in response to (6), the mean value of the ISP-bound traffic is approximately 42 MOU; the standard deviation of the sample is approximately 183.33, yielding a coefficient of variation of approximately 4.37, as reported on line 21.

8. Please provide any and all reports and studies referred to in the testimony of all Verizon witnesses, to the extent they have not been provided with the testimony or exhibits.

Response:

Provided are the following:

Hewlett-Packard AcceSS7 Study, Apr. 1997.
(Bates Stamped Document Nos. 67-82)

GTE Presentation to the FCC in CC Docket No. 96-263.
(Bates Stamped Document Nos. 83-95)

Comments of GTE in CC Docket No. 96-263.
(Bates Stamped Document Nos. 96-139)

Reply Comments of GTE in CC Docket No. 96-263 and Supporting Affidavit of H. Lee Jones.
(Bates Stamped Document Nos. 140-171)

Summary Pages of the MI Coast-to-Coast Study
(Bates Stamped Document Nos. 172-177)

Website link to 2/7/01 Global NAPS Press Release:
http://www.gnaps.com

Global NAPS Goes All Packet, Posted 2/8/01
(Bates Stamped Document No. 178)

NORTEL Presentation, Fall 1999
(Bates Stamped Document Nos. 179-180)

NaviNet Presentation, March 1, 2000
(Bates Stamped Document Nos. 181-190)

NaviNet Presentation, Sept. 14, 1999
(Bates Stamped Document Nos. 191-204)

HEWLETT PACKARD

GTE Internet Service Provider Characterization

Internet Service Provider Switch Utilization Study in Southern California

Written by: Bob D'Eletto
Hewlett Packard Company
October 18, 1997

1 Executive Summary

The activity of Internet Service Providers[1] (ISPs) providing dial-up access to the Internet has caused concern over the required resource demands on the local telephone network. These ISPs typically provide service at a flat monthly rate for unlimited access.

The recent growth of several of the large ISPs prompted GTE to study in more detail the calling patterns of these service companies and how they may differ from the normal patterns for which the network was engineered. The Public Switched Telephone Network (PSTN) was built to achieve a low blocking rate (i.e., less than 1 percent) based on some very basic assumptions. These assumptions are that call holding times are exponentially distributed, calls last an average of about three minutes, and calls arrive at in an uncorrelated manner.

The purpose of this study was to measure the call volume, average call holding time and resource usage by these ISPs. Raw, per call measurements were made using the Hewlett-Packard SS7 monitoring system, AcceSS7, to measure all calls terminating to GTE offices in part of Long Beach, California, where a number of ISPs offer service. AcceSS7 collected data for a one-week period, including one weekend and weekday traffic. Using the data from each call, further data analysis was performed to create daily and hourly trend reports.

Of particular interest were not only the number of call attempts but also the percentage of line usage of ISPs over all other calls. As well, daily and hourly trending information of these values was calculated.

The report shows that the number a calls to the ISP numbers studied made up a large percentage of the total number of calls terminating on each central office. A more engaging statistic, however, is the significant percentage of the time in which a switch is consumed by ISP traffic. For example, in a particular office under study, 15% of the calls over a week were terminated to an ISP, yet that same office was used for ISP traffic 56% of the time. This provides a classic example of the long call durations typically exhibited by ISP callers, and serves as evidence that ISP traffic does consume an inordinately high amount of switch resources.

2 Introduction

There is no question that Internet use has grown tremendously over the past three to five years. What is less apparent is how this is affecting the service we have come to expect from our Public Switched Telephone Network (PSTN).

[1] Throughout this document the term Internet Service Provider is used to mean Data Service Provider. The term is used to describe a class of Public Switched Telephone Network (PSTN) users that provide access to data services such as the Internet. This may also include other, more traditional, data service providers such as college computer centers that exhibit the same calling patterns and, therefore, produce the same effects on PSTN.

It should come as no surprise that most Internet customers rely on the PSTN for convenient access to their Internet Service Provider. The PSTN provides the same reliable, low cost service for Internet customers as it does for ordinary voice customers. The real issue is that the PSTN is precisely engineered to provide great service provided the original assumptions used in designing it are still valid. These assumptions include 3 key elements:

- Call holding times are exponentially distributed
- Calls last an average of about three minutes
- Calls arrive at random, that is call arrivals are not correlated

Since Internet customers are data customers and the PSTN was designed for voice traffic there is serious doubt that these key assumptions are still valid. In fact, areas with large Internet communities have already experienced service problems that may require massive equipment upgrades and eventually total re-engineering.

The purpose of this report is to provide GTE with some information on the calling characteristics of customers of ISPs. In particular, are ISP customers behaving similar to voice customers?

The results are divided into three basic parts. First we divided the numbers on each switch into ISPs and non-ISPs and gathered data on the two user communities. This data answers the following questions:

- How many calls are being received by ISPs and non-ISPs, that is, what percent of all answered calls are destined for ISPs?
- How much of the total circuit connect time on the switch is being used by the ISP community?
- What are the busiest times for ISP usage vs. non-ISP usage?

The second part characterizes three very large internet providers. It examines calling patterns for calls they receive throughout the study period. It shows the following:

- How many calls are received each hour of the day? How many does the ISP fail to answer?
- What is the average call holding time for these ISP customers? Is there a different call holding time depending on when the customer calls the ISP?
- When is the busy time for each ISP? Are the traffic patterns different on weekends?
- How much CCS is this ISP responsible for each hour of the day?

The third part calculated the same statistics for some non-ISP customers. In particular 3 Pizza Hut restaurants were examined because some believe that a Pizza Hut restaurant may be a close approximation to an ISP.

3 Data Collection

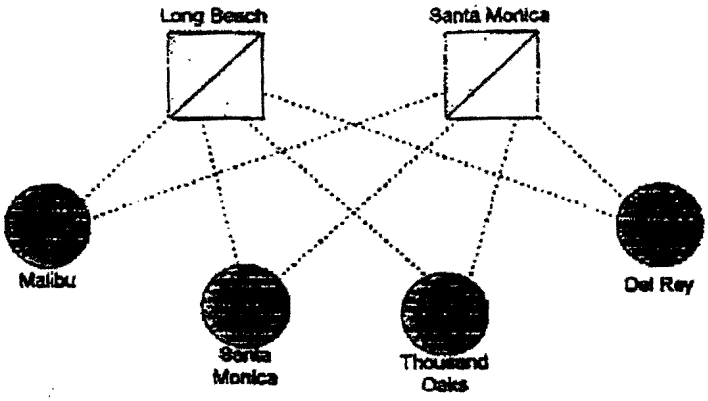
AcceSS7 equipment monitored and recorded all terminating calls to four specified end offices in the Long Beach, California LATA:

Malibu	240-015-022
Santa Monica	240-015-127
Del Rey	240-015-015
Thousand Oaks	240-015-128

3.1 Network Topology for Study

In Long Beach, California a number of ISPs were selected that had service from one of four Central Office locations.

These offices were connected to the GTE SS7 network by the Long Beach and Santa Monica pair of Signaling Transfer Points (STP's) as shown below. Calls into these offices have call setup data on these SS7 links which contains all needed information including call origin, destination, and duration.



• Figure 1 – SS7 Network for Long Beach Study

For the study period all calls terminating into the four offices were recorded[2]. These included calls destined for Internet Service Providers as well as traditional voice customers. Terminating calls are calls where another customer dials a number assigned to one of the switches under study. Calls originating from customers assigned to these switches and destined for subscribers on other switches were not recorded.

A record was made for each call attempt. This means that a record was made for calls that could not complete, e.g. user busy as well as answered calls. No elapsed time was recorded for calls that were not answered.

4 Scope of Study

This study was performed during a seven-day period from 02:54 on August 20 through 10:23 on August 26, 1997. Since the first and last days (i.e., August 20th and August 26th) were not complete, they are not included in the summary data presented in this report. That is, only days where complete 24 hour data is available are summarized in this report. This included 3 weekdays, a Saturday and a Sunday.

GTE provided a list of 34 suspected ISP terminating numbers, as well as 3 Pizza Hut store terminating numbers. The ISP numbers were determined by GTE using various public resources such as Internet Web sites and Yellow Pages. After initial

[2] Internet Service Providers generally receive calls, it is rare that an ISP will call a customer although some use call forwarding for overflow traffic.

testing of the recorded data, many of the numbers showed no call activity. Follow on testing (i.e., calling these numbers) showed that most had been disconnected. Many of these numbers had at one time been Internet Service Providers that had either gone out of business or moved their numbers. This is fairly common among small ISPs and therefore tracking "real" ISP numbers is an ongoing process.

To alleviate this problem it became necessary for HP to identify other Internet Service Providers, in fact, in order to obtain meaningful results, HP had to identify most[3] of the ISPs on each switch. This was done by examining the patterns of calls to *all* numbers on the switches under study. The numbers showing similar calling patterns to known and verified Internet Service Providers were recorded and verified. Verification was to dial the number and detect a modem tone indicating that users dialed in for some form of data service. The following table indicates the numbers used in the study:

Malibu	Santa Monica	Del Rey	Thousand Oaks
310 3178300	310 4511209	310 3014501	805 4491500
310 3179832	310 2608513	310 3063450	805 4976500
310 3174538	310 4515264	310 5740287	805 2302600
310 4566171	310 6563105	310 3028500	805 4971070
310 3173262	310 2609452	310 3064922	805 4949801
310 3173969	310 8994770	310 5789165	805 7771600
310 4568832		310 8233820	805 2301046
310 4560037		310 4481650	805 4970861
310 4564073		310 8220018	805 4949608
		310 4481222	805 2302300
		310 5778980	805 2302555
		310 5778974	

Appendix A contains a complete list of these numbers along with their recorded Minutes Of Use (MOU) for each day in the study period and their average call holding time for each day.

All other calls were considered to be Non-ISP. Of particular interest were three Pizza Hut numbers identified by GTE. Each of these numbers was called and verified to be a Pizza Hut store. Identical statistics were gathered for each Pizza Hut store for comparison with selected ISPs.

5 Monitoring Equipment Installation

With the cooperation and assistance of the Long Beach and Santa Monica GTE personnel, Hewlett-Packard installed the AcceSS7 monitoring system at the two STP locations in California.

This allowed for complete, yet non-intrusive, access to the SS7 links to the specified central offices.

A collection of hardware and software was deployed including:

- Measurement Card Cages

[3] Most by total elapsed time, not number of calls.

- Remote Site Processors
- Central Server
- Analysis Workstation
- Web Server

The data for each call was maintained on disk and used by analysis routines executed on the workstation. The results were then gathered remotely for this report as well as transmitted to GTE for daily reports via a web browser.

All call records for the study period were archived and are available for examination.

6 Internet Service Provider Characteristics

The most obvious question to ask about ISPs is whether they behave the same as traditional voice subscribers. In particular, do ISP customers tend to stay on the line longer than voice callers? One measure of this is to determine the percent of all calls destined to the ISPs then determine the percent of all Minutes of Use destined to the ISPs. If ISP customers behave similar to voice customers the percent of calls should about equal the percent of MOU.

This is also a good measure of switch resources used by the ISP. Again, if the ISP were using about the same proportion of switch resources as all other customers the ratio of calls and MOU should be about equal.

6.1 Call Volume

The table below shows the percent values of answered ISP calls for the study period. The percent values reflect the total number of answered ISP calls divided by the total number calls answered in each office. This measures the ratio of calls to all Internet Service Providers compared to calls to all other voice users.

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	10.8	10.0	11.7	14.5	11.4
Santa Monica	3.9	3.9	5.9	6.7	4.1
Del Rey	10.0	9.7	12.0	14.6	10.5
Thousand Oaks	15.6	15.4	21.3	26.1	16.4

6.2 Call Duration

The following table shows the Minutes of Use (MOU) for all ISP traffic which terminates on each switch. The percent values were calculated by dividing the total MOU of answered ISP calls by the MOU of all answered calls in each office.

	8/21	8/22	8/23	8/24	8/25
Malibu	48.2	47.3	55.1	53.1	46.7
Santa Monica	30.0	32.1	44.0	44.5	29.9
Del Rey	41.1	41.55	48.0	48.9	39.0
Thousand Oaks	65.4	65.2	76.2	77.3	63.5

6.3 Comparison: % Calls Vs. % MOU

Examining the two tables above shows the ratio of percent of ISP calls to percent of ISP MOU for each switch ranges from a low of about 3 to a high of almost 10. This means that ISPs use between 3 and 10 times the switch resources used by all other subscribers on the switch.

7 ISP vs. Non-ISP Hourly Usage

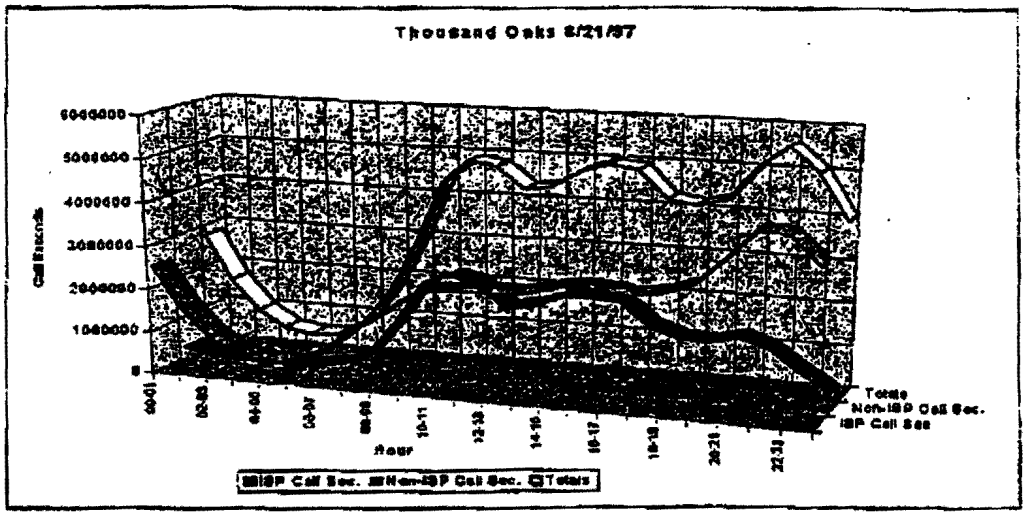
Exploding ISP traffic patterns also involves determining when traffic to the Internet Service Provider is heaviest. Here the call volume must be measured for each hour. This means that long calls will show usage in more than one hour period. For example, if a call begins at 2:30 in the afternoon and ends at 4:30 it will contribute 1800 call seconds to the 2:00-3:00 period, 3600 seconds to the 3:00-4:00 period and 1800 seconds to the 4:00-5:00 period.

This measurement was taken by examining each terminating phone call, determining whether it is to an ISP, and dividing its elapsed time into 24, hourly second counts. Two sets of counts are kept, one for ISPs and another for Non-ISPs. This summary was produced for each day of the study as well as each switch. The complete results for each day and switch are contained in appendix B.

By plotting Internet CCS along with Non-Internet CCS on the same graph vs. time it is possible to compare their peak usage times. One example is shown below. It plots the ISP and Non-ISP call seconds for the Thousand Oaks Central office on 8/21. For this switch it is obvious that Internet usage peaks late in the evening while non-Internet traffic is declining. In fact, because of the Internet peak in the evening, that period becomes the switch busy hour and the switch and trunks must be engineered to handle that load.

It is also apparent that internet traffic is also a significant portion of the total switch traffic during traditional busy periods (i.e., mid-morning and mid-afternoon). It also extends well into the early morning hours.

As stated above, appendix B contains the Detailed ISP and Non-ISP results for each day.



8 Typical ISP Call Behavior

This section describes the typical large ISP calling patterns as measured in the study. The following table shows the daily calling pattern for subscribers of 310-578-9185 (America On Line) on 8/24/97. This ISP received a total of 324,937 minutes of use for the entire day, more than *5,000 hours* of use. This customer was by far the highest use customer on the Del Rey switch. Another interesting fact is that the average call holding time for the day was more than 23 minutes. In fact all of the ISPs had average call holding times above 10 minutes, all the large ones had call holding times between 20 and 30 minutes for each day.

Complete results for these ISP POPs and one other are contained in appendix C.

805-230-2600	AOL	8/24/97		
# Average Call holding time is 23.120647 for 508885.433333 MOU				
——Hourly Totals——				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	626	0	34.244941	15894.7
01-02	378	0	34.571164	11851.52
02-03	207	1	29.644283	7224.23
03-04	171	0	21.6	3913.27
04-05	104	0	31.864904	2395.21
05-06	90	0	19.971111	1734.78
06-07	198	0	25.108165	2324.54
07-08	438	0	22.315639	4685.24
08-09	669	0	21.022197	6993.35
09-10	1017	2	19.629023	10220.52
10-11	1145	0	18.628763	12235.42
11-12	1209	0	18.771905	13329.84
12-13	1165	1	19.558827	13781.58
13-14	1231	0	22.065177	14492.82
14-15	1154	3	21.961915	14740.58
15-16	1164	1	21.54894	15164.91
16-17	1217	0	23.174254	15754.71
17-18	1305	11	20.356718	16847.05
18-19	1274	12	21.593053	16015.44
19-20	1318	12	23.761267	17457.89
20-21	1738	27	23.959599	20440.51
21-22	1740	56	24.342672	24817.69
22-23	1447	34	27.43179	23511.43
23-24	1005	16	28.83471	19913.87

9 Typical Non-ISP Call Behavior

The table shown below represents a typical phone-in service business, that is a Pizza Hut Store. Pizza Hut calls were recorded to compare their customers calling patterns to those of an Internet Service Provider.

The first observation is that retail stores, such as restaurants, don't handle nearly the same volume of traffic as a large Internet Service Provider. The ISPs in the previous section handled as much as half a million MOU daily while the busiest Pizza Hut in the study handled only 286 MOU. In fact, the largest non-ISP users of the switches under study were voice messaging systems, these systems recorded MOU in the 3000 to 5000 range. Next were some hospitals and large hotels with MOU in the range of 1000 to 3000.

310-577-9697	Pizza Hut	8/24/97		
# Average Call holding time is 2.107598 for 286.633333 MOU				
——Hourly Totals——				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	7	0	1.683333	7.07
01-02	3	0	2.977778	5.36
02-03	0	0	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	0	0	0	0
09-10	0	0	0	0
10-11	4	0	2.125	5.05
11-12	0	0	0	0.05
12-13	3	0	2.555556	4.6
13-14	1	0	0.266667	0.16
14-15	9	0	1.864815	10
15-16	9	0	2.494444	11.09
16-17	18	0	1.821875	19.94
17-18	11	0	2.043939	13.49
18-19	12	0	2.156944	15.53
19-20	14	0	1.92619	14.26
20-21	13	0	1.839744	16.27
21-22	15	0	2.197778	19.78
22-23	12	0	2.356944	16.35
23-24	7	0	2.942857	7.13

The next observation is that the average call to a Pizza Hut restaurant is only 2.1 minutes. As stated previously, ISPs regularly record average call holding times of 20 minutes or more, *10 times as long as the Pizza Hut.* Voice messaging systems show very short average call holing times, usually less than one minute but very high call rates. Hospitals and hotels exhibit average call holding times in the 3 to 5 minute range.

10 Conclusion

This study has shown ISP and non-ISP calling patterns. It has presented a small amount of this data in the body of the document and included the bulk of the data in appendices. All call records have been archived if the need arises to further examine any aspect of the study.

Some rather strong conclusions may be drawn from the resulting data.

First, callers to internet service providers stay on the line at least ten times longer than traditional voice users. Voice traffic exhibits average call holding times between one and four minutes. ISP call holding times are between 15 and 30 minutes.

The number of users of the ISPs with calls greater than 10 (or even 24) hours suggests a very heavy tail if call holding times are plotted. It is doubtful that the call holding time distribution is still exponential. Determining the distribution of call holding times requires detailed statistical analysis and is outside the scope of this study.

Finally, the enormous number of unanswered calls during some ISPs busy hours suggest something other than random calling. I suspect that repetitive auto-dialers may be responsible for this phenomenon. Certainly if repetitive auto-dialers are the reason, then call attempts are not random.

These three conclusions suggest that many of the assumptions used in designing the PSTN are not valid in this new environment. Changed calling patterns will require re-engineering and upgrades to the network to provide the same level of service we have become accustom to.

Appendix A

Appendix A contains tables showing daily MOU and average daily call holding times for all of the ISPs under study.

Each table shows the switch, the ISP number, the total minutes of use or the day, and finaly the average call holding time for that ISP for that day.

Switch	ISP Number	8/21/97		8/22/97		8/23/97	
		Total MOU	Ave Hold Time	Total MOU	Ave Hold Time	Total MOU	Ave Hold Time
Malibu	310 3178300	68450	20.05	73640	19.19	50430	26.04
Malibu	310 3179832	49731	21.7	54091	23.92	44924	27.04
Malibu	310 3174538	17673	19.1	16948	16.44	14549	21.33
Malibu	310 4566171	7679	24.5	9285	25.72	5449	37.54
Malibu	310 3173282	945	9.36	1067	8.89	1191	18.9
Malibu	310 3173969	1645	10.67	1714	8.42	1332	10.25
Malibu	310 4568832	1098	10.36	2067	6.5	790	14.9
Malibu	310 4560037	633	33.3	489	25.75	277	23.09
Malibu	310 4564073	704	9.65	844	10.17	390	10.28
SantaMonica	310 4511209	231457	24.9	243927	25.07	186692	28.76
SantaMonica	310 2608513	203004	23.15	187154	20.73	196213	23.33
SantaMonica	310 4515264	6469	9.2	5888	8.33	5472	9.5
SantaMonica	310 6563105	6772	23.5	7861	23.39	5261	23.39
SantaMonica	310 2609452	5361	29.5	6921	26.42	6387	36.29
SantaMonica	310 8994770	6498	19.57	5974	18.33	4593	35.61
DelRey	310 3014501	12637	15.5	13446	15.91	13418	16.96
DelRey	310 3063450	202301	15.35	239627	15.61	161116	17.36
DelRey	310 5740287	9390	14.55	10559	11.31	4442	16.7
DelRey	310 3028500	41315	36.5	40981	37.56	35213	37.06
DelRey	310 3064922	8443	8.97	6947	8.84	4404	11.59
DelRey	310 5769165	377128	20.2	382574	19.75	310053	23.01
DelRey	310 8233820	13736	23.6	15126	26.26	9060	18.26
DelRey	310 4481650	4628	19.36	5426	17.62	4457	26.37
DelRey	310 8220018	3054	61	2751	57.31	2785	63.31
DelRey	310 4481222	1494	11.77	2306	21.36	1192	18.33
DelRey	310 5778980	3686	30.2	2869	20.69	803	10.85
DelRey	310 5778974	2202	16.3	2630	15.94	1764	25.2
ThouOaks	805 4491500	90401	18.57	102169	19.51	84608	20.54
ThouOaks	805 4976500	74260	20.67	94621	33	68591	24.28
ThouOaks	805 2302600	512809	21.9	540586	21.99	492740	23.93
ThouOaks	805 4971070	54661	29.7	66984	33.44	53041	33.59
ThouOaks	805 4949801	26078	24.5	26895	22.63	24510	26.99
ThouOaks	805 7771600	24053	25.7	27119	23.44	26946	29.29
ThouOaks	805 2301048	18921	20.9	19357	20.65	16882	27.14
ThouOaks	805 4970881	9917	35.3	12826	35.05	9113	31.99
ThouOaks	805 4949808	1276	38	9025	24.79	6699	23.42
ThouOaks	805 2302300	6131	13.5	8806	12.67	5860	20.49
ThouOaks	805 2302555	811	13.2	1669	37.1	449	15.5

11 Appendix B ISP vs. Non-ISP Statistics

Each table in this section shows the per ISP statistics. That is, the total ISP call seconds by hour, the total non-ISP call seconds, the number of ISP calls completed and not completed that hour, the number of non-ISP calls completed and not completed that hour.

SantaMonica		21-Aug						
Office	Hour	ISP Call Sec.	Non-ISP Call Sec.	Total	ISP Calls	Non-ISP Calls	Unanswered ISP Calls	Unanswered Non-ISP Calls
SantaMonica	00-01	1215093	592178	1807271	631	3327	313	324
SantaMonica	01-02	968406	282139	1250545	426	2082	6	231
SantaMonica	02-03	640556	163035	803591	286	1425	2	190
SantaMonica	03-04	388416	111544	499960	140	831	3	144
SantaMonica	04-05	279065	97447	376512	126	867	0	186
SantaMonica	05-06	314526	152977	467503	196	1527	1	329
SantaMonica	06-07	542575	389686	932261	572	3719	3	872
SantaMonica	07-08	908033	1072214	1980247	902	9415	355	1275
SantaMonica	08-09	1112355	2438392	3550747	1108	21868	1034	3067
SantaMonica	09-10	1282047	4547944	5829991	1197	38103	2197	5610
SantaMonica	10-11	1329856	5668232	6998088	1037	44322	2585	6810
SantaMonica	11-12	1358163	5600103	6958266	1011	44559	2530	5895
SantaMonica	12-13	1310175	4568653	5878828	1033	38310	1658	4846
SantaMonica	13-14	1286056	4309217	5595273	1013	37810	1370	5276
SantaMonica	14-15	1324020	4881488	6205508	1024	40137	2139	5176
SantaMonica	15-16	1428716	5161581	6590297	1144	40462	1277	5685
SantaMonica	16-17	1427877	4945138	6373015	1218	39097	1374	5392
SantaMonica	17-18	1435430	3895912	5331342	1280	32216	1795	4568
SantaMonica	18-19	1467411	3216798	4684209	1203	26737	1413	4205
SantaMonica	19-20	1374737	2945762	4320499	1183	24085	913	4178
SantaMonica	20-21	1489282	3024113	4513395	1092	20725	2103	3213
SantaMonica	21-22	1515687	2759035	4274722	993	15097	4575	2020
SantaMonica	22-23	1510424	2151891	3662315	807	11007	5713	1307
SantaMonica	23-24	1427406	1237516	2664922	762	6385	2905	721

SantaMonica		8/22/97						
Office	Hour	ISP Call Sec.	Non-ISP Call Sec.	Total	ISP Calls	Non-ISP Calls	Unanswered ISP Calls	Unanswered Non-ISP Calls
SantaMonica	00-01	1296249	607787	1904036	595	3649	560	374
SantaMonica	01-02	975217	296992	1272209	411	2234	18	366
SantaMonica	02-03	617039	196708	813747	261	1373	3	198
SantaMonica	03-04	435932	115084	551016	188	864	0	174
SantaMonica	04-05	325492	93581	419073	127	868	1	220
SantaMonica	05-06	299156	160209	459365	212	1439	1	322
SantaMonica	06-07	480585	414879	895444	486	3966	3	1294
SantaMonica	07-08	926667	1110555	2037222	908	9459	7	1373
SantaMonica	08-09	1259384	2514484	3773868	1323	21866	316	3225
SantaMonica	09-10	1429298	4582611	6011909	1196	37312	1029	5704
SantaMonica	10-11	1482945	5463045	6945990	1116	43829	1646	5965
SantaMonica	11-12	1503641	5384733	6888374	1136	44033	1544	6125
SantaMonica	12-13	1486393	4391492	5877885	1152	37659	943	4711
SantaMonica	13-14	1466872	4148911	5615783	1207	37042	843	5010
SantaMonica	14-15	1414413	4557584	5971997	1148	39819	801	5199
SantaMonica	15-16	1481893	4587536	6069429	1144	38889	1221	5583
SantaMonica	16-17	1455227	4436494	5891721	1259	37811	1547	5083
SantaMonica	17-18	1417939	3521261	4939200	1125	30992	1297	4271
SantaMonica	18-19	1365627	2904571	4270198	1061	24988	1014	3611
SantaMonica	19-20	1280652	2467487	3748139	884	21413	818	3283
SantaMonica	20-21	1258486	2264304	3522790	856	17369	545	2827
SantaMonica	21-22	1276373	1921229	3197602	753	12810	706	2089
SantaMonica	22-23	1305185	1389393	2694578	726	9185	1243	1056
SantaMonica	23-24	1298799	879316	2178115	711	6235	906	583

SantaMonica		8/23/97						
Office	Hour	ISP Call Sec.	Non-ISP Call Sec.	Total	ISP Calls	Non-ISP Calls	Unanswered ISP Calls	Unanswered Non-ISP Calls
SantaMonica	00-01	1144523	525456	1669979	590	4001	404	436
SantaMonica	01-02	1057534	318204	1375738	451	2550	35	275
SantaMonica	02-03	818431	205469	1023900	338	1650	2	216
SantaMonica	03-04	494695	121352	615947	205	1143	2	164
SantaMonica	04-05	310572	87738	398308	125	814	1	147
SantaMonica	05-06	287646	82208	369854	119	814	0	121
SantaMonica	06-07	366750	165002	531752	289	1607	3	226
SantaMonica	07-08	562924	482610	1045534	485	4003	6	514
SantaMonica	08-09	870158	1279501	2149659	758	9593	4	1546
SantaMonica	09-10	1147508	2299813	3447321	953	16443	190	2640
SantaMonica	10-11	1241232	2722923	3964155	952	20651	117	3302
SantaMonica	11-12	1296436	2561940	3857376	906	20619	354	2977
SantaMonica	12-13	1221654	2283099	3504753	863	19406	206	2869
SantaMonica	13-14	1226482	1936485	3161967	972	17844	74	2609
SantaMonica	14-15	1182337	1819585	3001922	886	17015	61	2323
SantaMonica	15-16	1242986	1833936	3076922	951	16376	277	2239
SantaMonica	16-17	1218685	1922202	3140887	859	17074	517	2314
SantaMonica	17-18	1206301	1979836	3186137	876	16458	386	2642
SantaMonica	18-19	1197248	1919926	3117174	857	15708	382	2599
SantaMonica	19-20	1232339	1724454	2956793	881	14546	24	2379
SantaMonica	20-21	1185198	1688850	2874048	804	13076	193	2108
SantaMonica	21-22	1202185	1386658	2589023	659	10395	693	1528
SantaMonica	22-23	1252847	1004738	2257585	673	7878	827	962
SantaMonica	23-24	1240180	706428	1946608	638	5220	462	621

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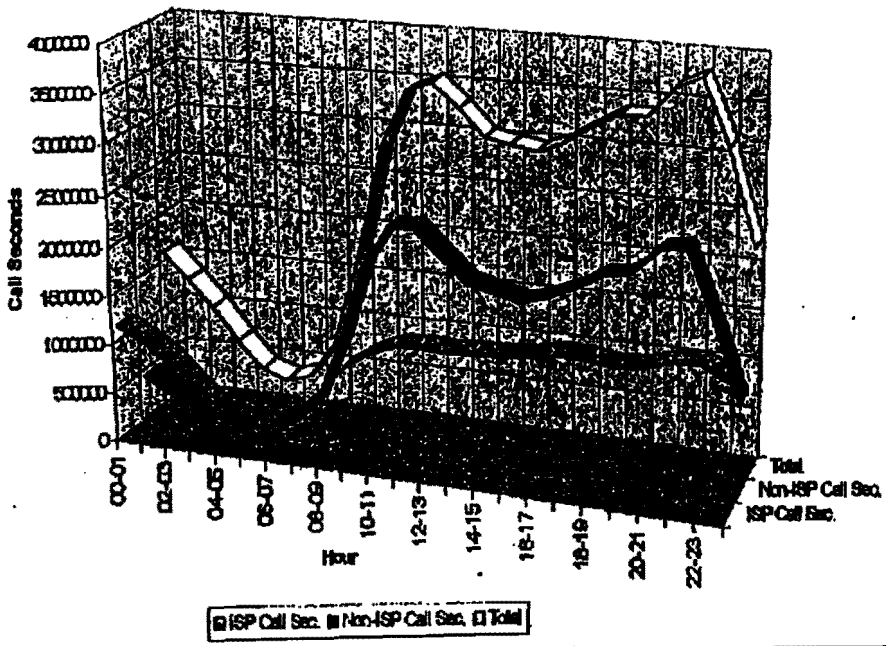
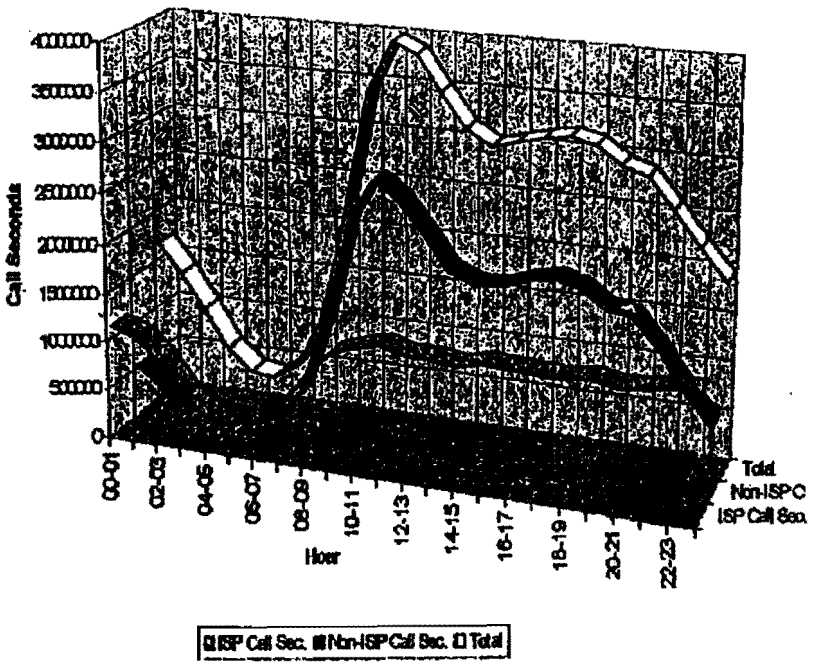
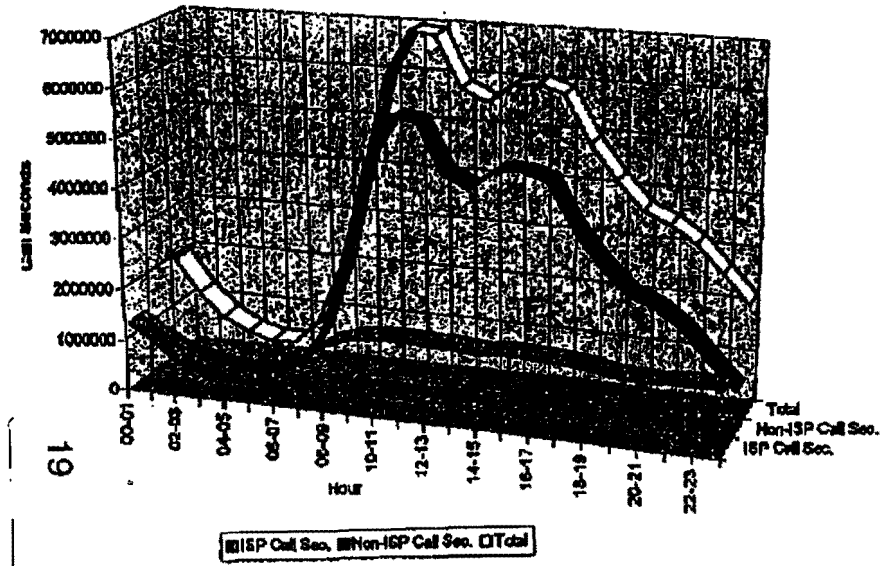
Santa Monica 8/24/97



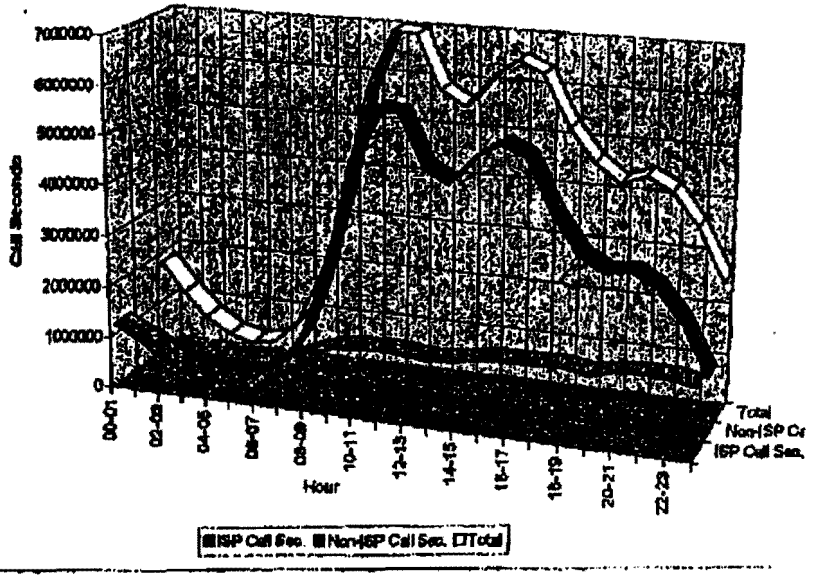
Santa Monica 8/23/97



Santa Monica 8/22/97



Santa Monica 8/21/97



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DelRey		8/21/97						
Office	Hour	ISP Call Sec.	Non-ISP Call Sec.	Totals	ISP Calls	Non-ISP Calls	Unanswered ISP Calls	Unanswered Non-ISP Calls
DelRey	00-01	1925154	755622	2680776	1020	1739	1	422
DelRey	01-02	1256868	395574	1652442	517	990	0	385
DelRey	02-03	753775	236831	990606	320	683	0	239
DelRey	03-04	456784	143553	600337	218	536	3	181
DelRey	04-05	320901	101790	422691	177	533	0	239
DelRey	05-06	334973	185520	520493	285	1121	0	422
DelRey	06-07	537627	438447	976074	699	3026	2	884
DelRey	07-08	1083146	1161608	2244754	1511	7264	2	1588
DelRey	08-09	1761755	2508617	4270372	2286	16815	1	2984
DelRey	09-10	2130391	4314755	6445146	2610	28257	443	5254
DelRey	10-11	2256774	4773886	7030660	2514	30925	1017	5627
DelRey	11-12	2326394	4758835	7085229	2454	30755	809	5398
DelRey	12-13	2242660	3869750	6112410	2287	26394	470	4536
DelRey	13-14	2242266	3701602	6033868	2312	26786	266	4746
DelRey	14-15	2242068	4086059	6328127	2477	27976	997	4968
DelRey	15-16	2260712	4192317	6453029	2278	27950	474	4964
DelRey	16-17	2313160	4237594	6550774	2400	27730	957	4969
DelRey	17-18	2347921	3694234	6042155	2411	23336	1260	4420
DelRey	18-19	2279987	3473910	5753897	2183	21446	792	4478
DelRey	19-20	2331509	3508944	5840453	1975	20025	336	4279
DelRey	20-21	2369431	3854129	6223560	1927	17780	1603	3995
DelRey	21-22	2620695	3701891	6322586	2043	11947	4045	2339
DelRey	22-23	2740240	2840822	5580962	1923	7269	4797	1517
DelRey	23-24	2518108	1564118	4082226	1659	3583	2584	811

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DelRey		8/22/97						
Office	Hour	ISP Call Sec.	Non-ISP Call Sec.	Total	ISP Calls	Non-ISP Calls	Unanswered ISP Calls	Unanswered Non-ISP Calls
DelRey	00-01	2044118	769033	2813151	1034	1826	94	406
DelRey	01-02	1280131	376950	1657081	691	969	0	236
DelRey	02-03	781551	235082	1016633	317	717	1	205
DelRey	03-04	501303	131901	633204	215	571	0	150
DelRey	04-05	321299	107071	428370	206	579	0	189
DelRey	05-06	308903	193264	502167	278	1143	0	380
DelRey	06-07	530192	416279	946471	664	2821	0	735
DelRey	07-08	1033115	1174586	2207701	1471	7147	2	1496
DelRey	08-09	1543347	2492193	4035540	1998	16314	6	2989
DelRey	09-10	1996807	4157167	6153974	2440	26907	37	4796
DelRey	10-11	2155301	4778022	6933323	2398	30061	221	5292
DelRey	11-12	2226790	4565483	6792273	2388	30642	296	5305
DelRey	12-13	2139569	3844651	5984220	2048	26920	15	4858
DelRey	13-14	2134153	3636808	5770961	2160	26069	46	4287
DelRey	14-15	2176963	3935197	6112160	2186	26878	293	4429
DelRey	15-16	2281485	3957130	6238615	2237	26577	741	4739
DelRey	16-17	2301222	3840973	6142195	2363	26918	1252	4754
DelRey	17-18	2314148	3376389	5690537	2324	21641	500	4520
DelRey	18-19	2169233	3236420	5405653	2021	20172	296	4211
DelRey	19-20	1957955	3036958	4994913	1574	17580	6	4015
DelRey	20-21	2004526	2849353	4853879	1626	14162	3	3228
DelRey	21-22	2082137	2498427	4580564	1526	9451	73	1907
DelRey	22-23	2266158	1851033	4119191	1692	6259	672	1219
DelRey	23-24	2215930	1156165	3372095	1359	3488	143	737

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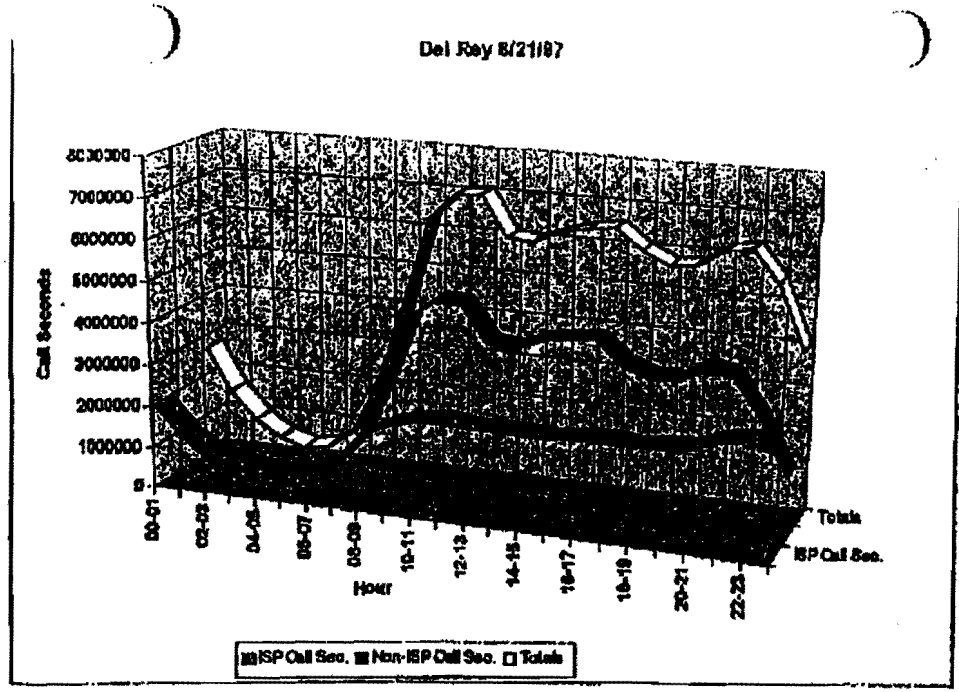
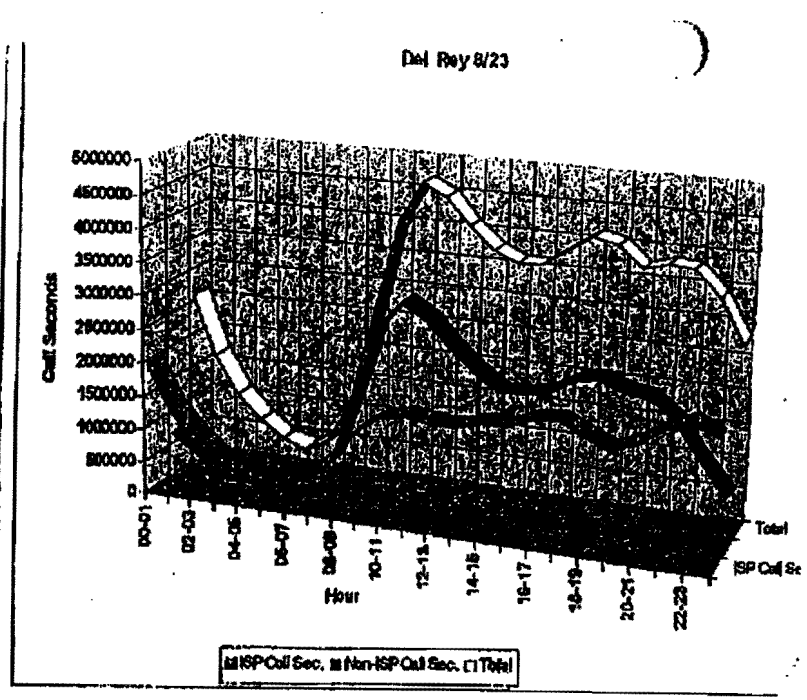
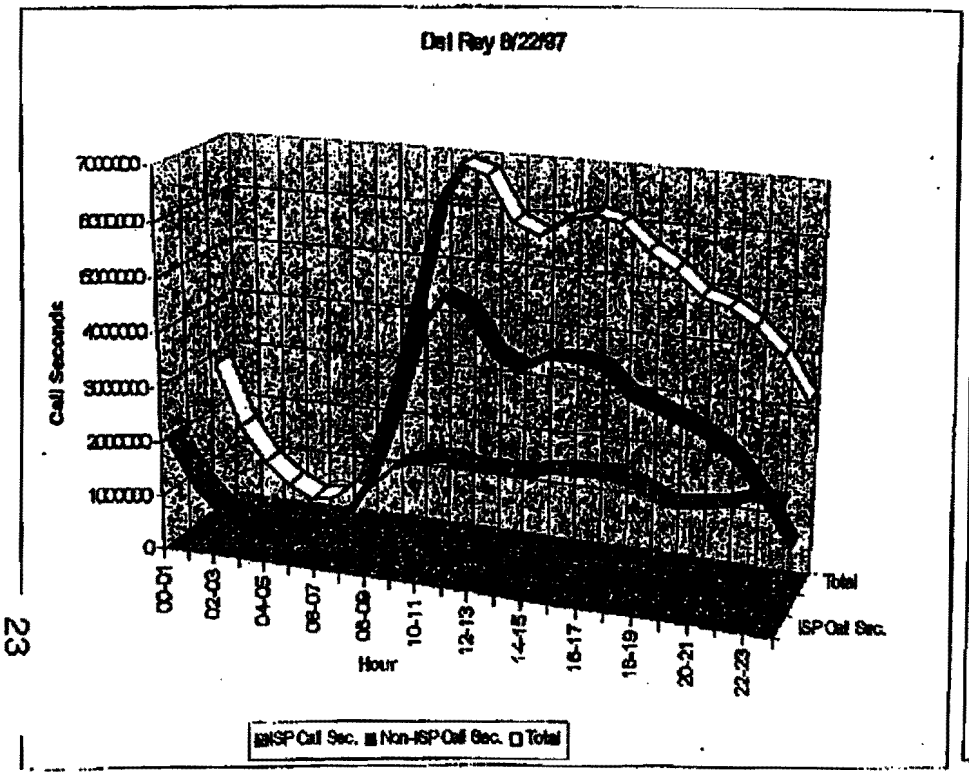
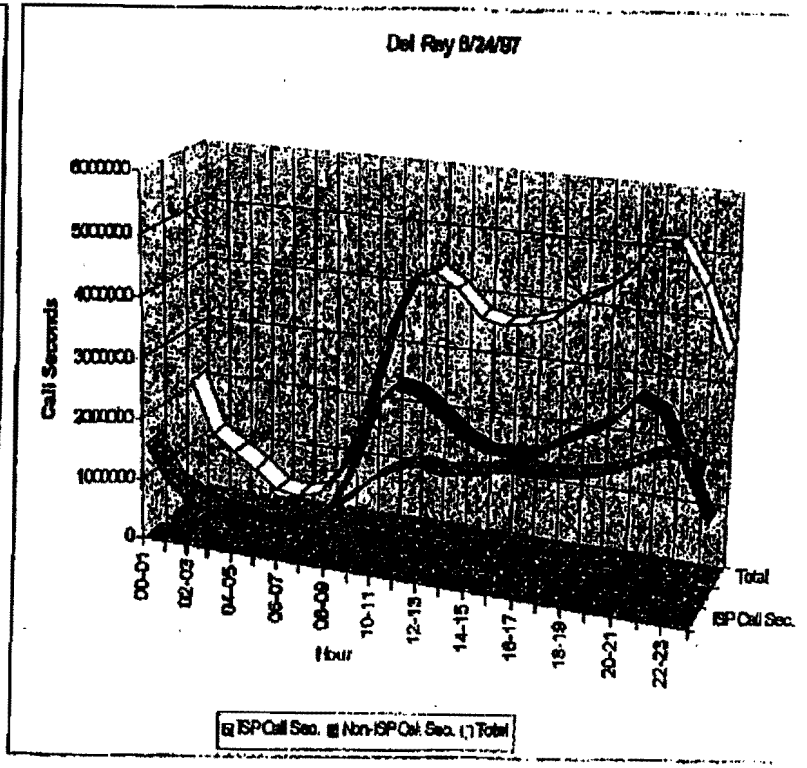
DelRey		8/23/97						
Office	Hour	ISP Call Sec.	Non-ISP Call Sec.	Total	ISP Calls	Non-ISP Calls	Unanswered ISP Calls	Unanswered Non-ISP Calls
DelRey	00-01	1934451	662143	2596594	986	1990	86	439
DelRey	01-02	1296730	395217	1691947	572	1309	2	290
DelRey	02-03	881550	252186	1133736	367	917	0	226
DelRey	03-04	602971	162007	764978	230	568	0	146
DelRey	04-05	409030	101572	510602	169	413	0	106
DelRey	05-06	283054	103549	386603	204	513	0	123
DelRey	06-07	369727	204548	574275	342	1169	0	223
DelRey	07-08	667304	576542	1243846	701	3024	0	591
DelRey	08-09	1004911	1571656	2576567	1087	7929	1	1525
DelRey	09-10	1382649	2664045	4046694	1388	14414	2	3122
DelRey	10-11	1598580	3068796	4667376	1541	16829	0	3528
DelRey	11-12	1656213	2846377	4502590	1499	16681	2	3781
DelRey	12-13	1608974	2497796	4106770	1391	15162	2	3458
DelRey	13-14	1596719	2186236	3782954	1327	13381	4	2743
DelRey	14-15	1713911	1924637	3638548	1419	12386	6	2519
DelRey	15-16	1703351	1944861	3648212	1508	12228	89	2562
DelRey	16-17	1870879	2025656	3896535	1627	12418	81	2411
DelRey	17-18	1909559	2231580	4141139	1566	12325	63	2541
DelRey	18-19	1737149	2308833	4045982	1490	12107	65	2649
DelRey	19-20	1581759	2162609	3744368	1255	10871	69	2518
DelRey	20-21	1719762	2122934	3842696	1355	9887	59	1856
DelRey	21-22	1976634	1837283	3813917	1467	7355	75	1473
DelRey	22-23	2129575	1310322	3439897	1437	4872	243	990
DelRey	23-24	1959021	850052	2809073	1253	2916	81	683


Del Rey 8/21/87
Call Seconds
Hour
Totals
ISP Call Sec.
ISP Call Sec. Non-ISP Call Sec. Totals


Del Rey 8/23
Call Seconds
Hour
Total
ISP Call Sec. Non-ISP Call Sec. Total


Del Rey 8/22/87
Call Seconds
Hour
Total
ISP Call Sec.
ISP Call Sec. Non-ISP Call Sec. Total


Del Rey 8/24/87
Call Seconds
Hour
Total
ISP Call Sec.
ISP Call Sec. Non-ISP Call Sec. Total

ThouOaks		8/21/97						
Office	Hour	ISP Call Sec.	Non-ISP Call Sec.	Totals	ISP Calls	Non-ISP Calls	Unanswered ISP Calls	Unanswered Non-ISP Calls
ThouOaks	00-01	2503591	250351	2753942	1015	2082	3	504
ThouOaks	01-02	1580675	123890	1704565	464	1098	1	436
ThouOaks	02-03	931318	70363	1001681	314	855	0	419
ThouOaks	03-04	559110	63180	622290	150	395	0	392
ThouOaks	04-05	465692	47595	513287	212	320	0	399
ThouOaks	05-06	475939	74216	550155	301	547	0	457
ThouOaks	06-07	701484	188930	890414	785	1519	1	555
ThouOaks	07-08	1254082	500773	1754855	1356	4107	3	936
ThouOaks	08-09	1639846	1312432	2952278	1780	9952	3	1820
ThouOaks	09-10	2133153	2251297	4384450	1921	16204	4	2972
ThouOaks	10-11	2416540	2489928	4906468	2035	18194	41	4013
ThouOaks	11-12	2460808	2342645	4803453	1961	17322	35	3155
ThouOaks	12-13	2489379	1839133	4328606	1897	15096	6	3144
ThouOaks	13-14	2483224	1939573	4422797	1882	15922	4	3023
ThouOaks	14-15	2616003	2169719	4785722	2034	16331	15	2635
ThouOaks	15-16	2781141	2209660	4970801	2160	16780	19	3090
ThouOaks	16-17	2714412	2179834	4894246	2218	16280	7	2947
ThouOaks	17-18	2630236	1646821	4276557	2299	13045	11	2597
ThouOaks	18-19	2747064	1422786	4169870	2380	11072	9	2411
ThouOaks	19-20	2971300	1386066	4357366	2400	10304	19	2305
ThouOaks	20-21	3565604	1562156	5127760	2758	9715	55	2228
ThouOaks	21-22	4239081	1353255	5592316	2869	8918	510	1461
ThouOaks	22-23	4181413	878151	5059564	2389	4841	689	925
ThouOaks	23-24	3574123	469705	4043828	1704	3248	5	801

ThouOaks		8/22/97						
Office	Hour	ISP Call Sec.	Non-ISP Call Sec.	Total	ISP Calls	Non-ISP Calls	Unanswered ISP Calls	Unanswered Non-ISP Calls
ThouOaks	00-01	2566553	270120	2836673	994	2074	2	525
ThouOaks	01-02	1627934	133350	1761284	545	1231	1	436
ThouOaks	02-03	939449	79441	1018890	312	541	0	412
ThouOaks	03-04	567867	68004	635871	199	444	0	401
ThouOaks	04-05	444085	48284	492369	201	320	0	410
ThouOaks	05-06	421326	69667	490993	343	603	0	453
ThouOaks	06-07	702541	184287	886828	762	1590	1	548
ThouOaks	07-08	1195049	525094	1720143	1414	4166	2	1025
ThouOaks	08-09	1678309	1290845	2969154	1720	9800	1	1811
ThouOaks	09-10	2081595	2163654	4245249	1954	16125	6	3212
ThouOaks	10-11	2309327	2486637	4794964	2039	17631	14	3214
ThouOaks	11-12	2444299	2338508	4782807	1937	17712	29	3668
ThouOaks	12-13	2359180	1837845	4197025	1864	14735	2	3044
ThouOaks	13-14	2310140	1853793	4163933	1855	15415	5	2881
ThouOaks	14-15	2489372	2010658	4500030	2068	16172	25	2907
ThouOaks	15-16	2617114	1972074	4589188	2083	16200	7	2919
ThouOaks	16-17	2703137	1993309	4696446	2390	15941	8	2953
ThouOaks	17-18	2716550	1595711	4312261	2428	12953	11	2500
ThouOaks	18-19	2645594	1343632	3989226	2172	11015	8	2301
ThouOaks	19-20	2503585	1220260	3723845	2131	9578	1	2047
ThouOaks	20-21	2874928	1129566	4004494	2189	8316	3	1599
ThouOaks	21-22	3303594	992568	4296162	2251	6127	9	1149
ThouOaks	22-23	3483815	682024	4165839	2250	4376	15	869
ThouOaks	23-24	3278648	376584	3655232	1615	3477	16	668

ThouOaks		8/23/97						
Office	Hour	ISP Call Sec.	Non-ISP Call Sec.	Total	ISP Calls	Non-ISP Calls	Unanswered ISP Calls	Unanswered Non-ISP Calls
ThouOaks	00-01	2563982	224078	2788060	1119	2710	3	554
ThouOaks	01-02	1769695	138457	1928152	855	1572	0	492
ThouOaks	02-03	1105429	86634	1192063	367	930	1	432
ThouOaks	03-04	661855	58287	720142	195	544	1	421
ThouOaks	04-05	446287	50445	496702	174	421	0	410
ThouOaks	05-06	429858	32507	462365	189	336	0	399
ThouOaks	06-07	548750	77312	626062	457	583	0	462
ThouOaks	07-08	915186	240783	1155949	891	1595	1	608
ThouOaks	08-09	1446090	621684	2069774	1368	4277	1	1073
ThouOaks	09-10	1863143	1159793	3022936	1688	7798	43	1873
ThouOaks	10-11	2160659	1308260	3468919	1793	9807	8	2536
ThouOaks	11-12	2161826	1148084	3329710	1808	9611	2	2278
ThouOaks	12-13	2265295	1046980	3312275	1803	8675	7	2355
ThouOaks	13-14	2257214	912211	3169425	1732	7949	18	1822
ThouOaks	14-15	2347440	864959	3212399	1728	7416	6	1478
ThouOaks	15-16	2559250	880549	3439799	1824	7570	5	1489
ThouOaks	16-17	2522224	940160	3462384	1792	7609	11	1565
ThouOaks	17-18	2355841	925900	3281741	1767	7836	18	1589
ThouOaks	18-19	2475479	859415	3334888	1864	7344	6	1454
ThouOaks	19-20	2311588	846616	3158204	1761	7003	13	1483
ThouOaks	20-21	2765346	856596	3621942	1978	6450	16	1361
ThouOaks	21-22	3116090	759354	3875444	1906	4983	5	967
ThouOaks	22-23	3336958	489016	3825974	2011	4043	7	798
ThouOaks	23-24	3069476	300714	3370190	1564	3202	0	593

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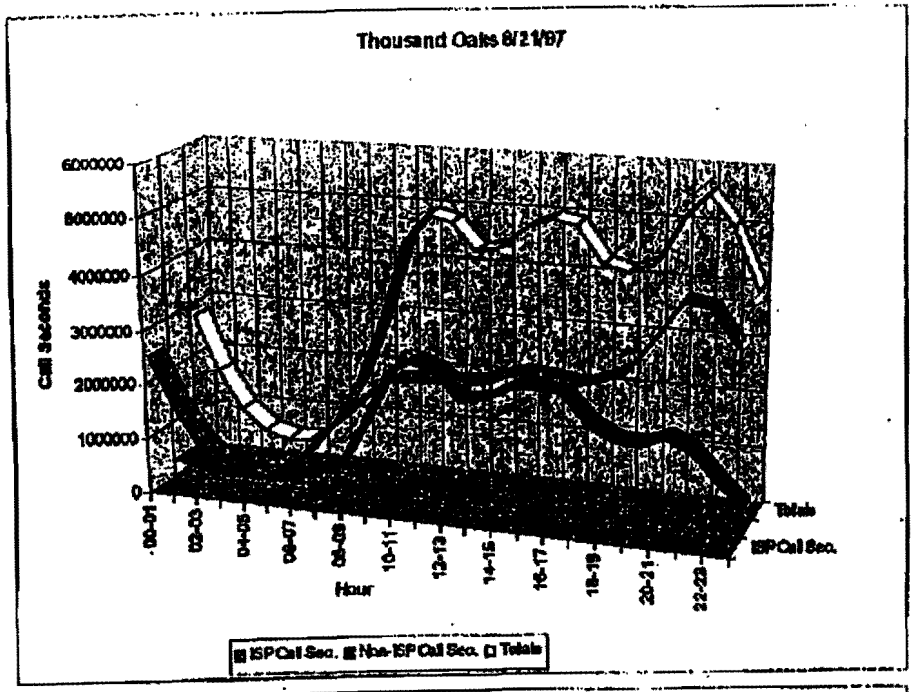
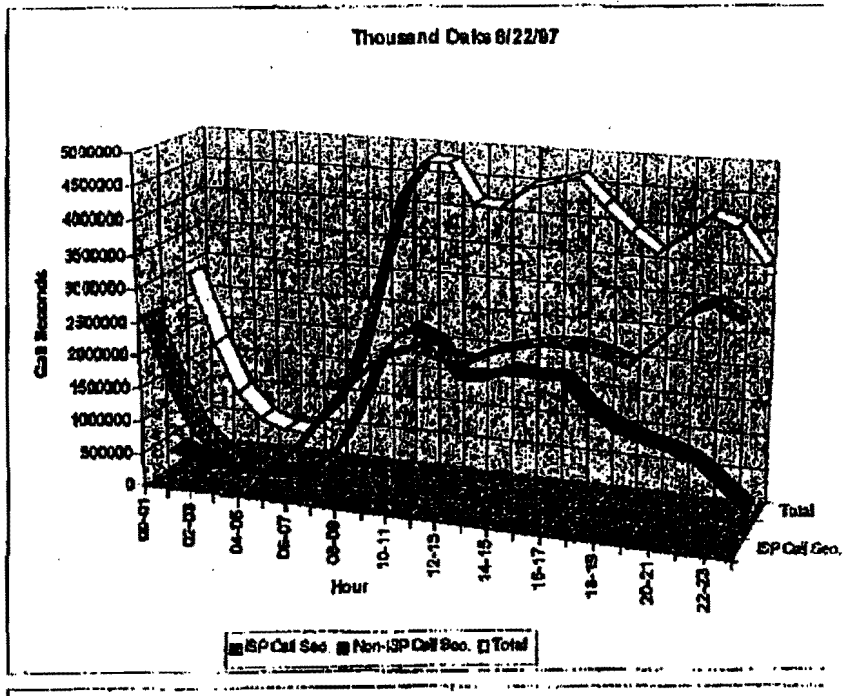
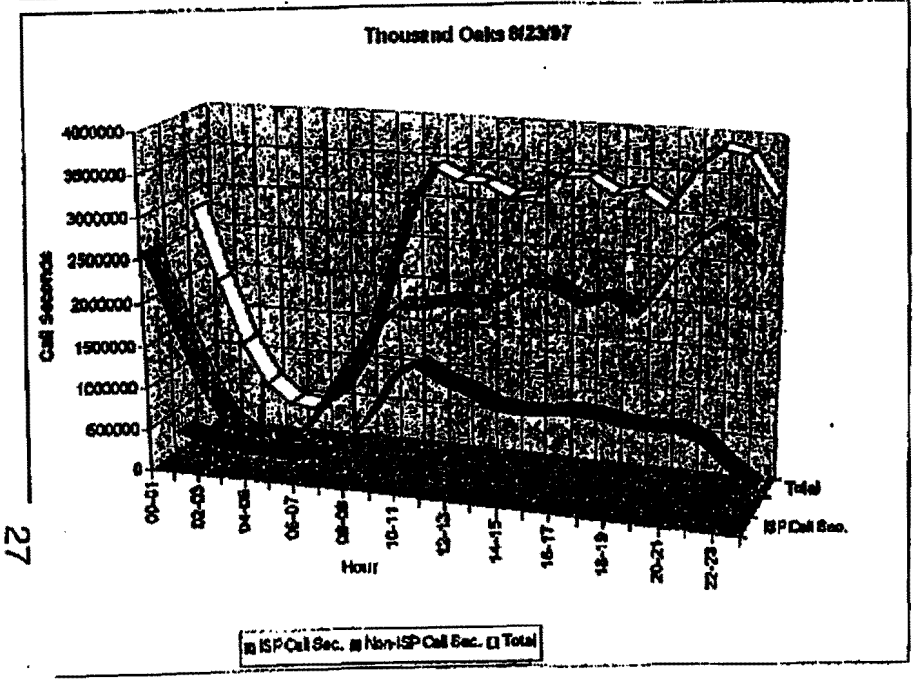
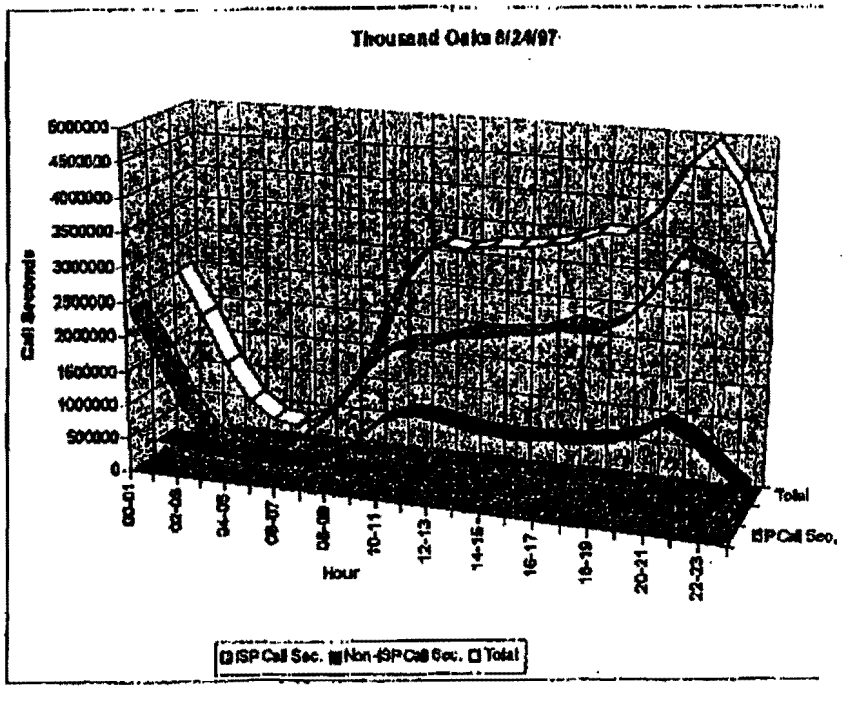

Thousand Oaks 8/21/97
Call Seconds
Hour
Totals
ISP Call Sec.
ISP Call Sec. Non-ISP Call Sec. Totals


Thousand Oaks 8/22/97
Call Seconds
Hour
Total
ISP Call Sec.
ISP Call Sec. Non-ISP Call Sec. Total


Thousand Oaks 8/23/97
Call Seconds
Hour
Total
ISP Call Sec.
ISP Call Sec. Non-ISP Call Sec. Total


Thousand Oaks 8/24/97
Call Seconds
Hour
Total
ISP Call Sec.
ISP Call Sec. Non-ISP Call Sec. Total

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Malibu		8/21/97						
Office	Hour	ISP Call Sec.	Non-ISP Call Sec.	Total	ISP Calls	Non-ISP Calls	Unanswered ISP Calls	Unanswered Non-ISP Calls
Malibu	00-01	388921	114540	503461	177	304	3	76
Malibu	01-02	275968	64203	340171	103	147	0	71
Malibu	02-03	186849	35567	222416	61	98	0	43
Malibu	03-04	147742	18862	166604	79	83	1	28
Malibu	04-05	106526	18748	125274	28	74	1	55
Malibu	05-06	86153	19169	105322	54	135	0	77
Malibu	06-07	139028	50454	189482	135	416	0	142
Malibu	07-08	286560	200039	486599	250	1424	2	295
Malibu	08-09	397744	449659	847403	382	3498	4	655
Malibu	09-10	483834	761869	1245703	495	5483	9	1264
Malibu	10-11	593293	878991	1472284	611	6066	44	1335
Malibu	11-12	605798	879007	1484805	561	6136	17	1251
Malibu	12-13	513366	687586	1200952	412	5314	9	1122
Malibu	13-14	498021	708963	1206984	490	5267	11	1016
Malibu	14-15	462253	735672	1197925	417	5282	7	1106
Malibu	15-16	500136	778134	1278270	470	5316	4	1024
Malibu	16-17	518913	727197	1246110	557	5259	6	1078
Malibu	17-18	513714	615162	1128876	538	4276	19	813
Malibu	18-19	490777	525250	1016027	386	3645	8	821
Malibu	19-20	460896	471680	932576	397	3161	3	888
Malibu	20-21	462398	501047	963445	380	2710	6	762
Malibu	21-22	502308	502031	1004339	428	1952	3	445
Malibu	22-23	576069	343823	919892	486	1209	3	292
Malibu	23-24	531476	236141	767617	337	827	2	159

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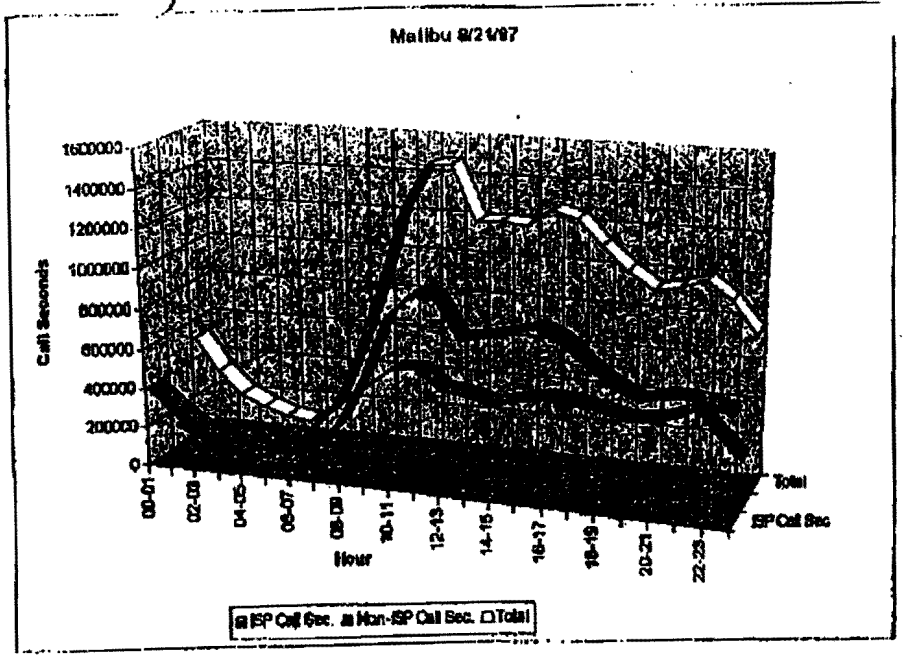
Malibu		8/22/97						
Office	Hour	ISP Call Sec.	Non-ISP Call Sec.	Total	ISP Calls	Non-ISP Calls	Unanswered ISP Calls	Unanswered Non-ISP Calls
Malibu	00-01	425940	141365	567305	195	301	2	100
Malibu	01-02	246700	50813	297513	109	153	1	42
Malibu	02-03	174646	20039	194685	43	132	0	37
Malibu	03-04	124079	13466	137545	33	109	0	41
Malibu	04-05	80198	10186	90384	34	74	2	30
Malibu	05-06	63154	18908	82060	46	141	0	57
Malibu	06-07	128553	66297	194850	148	520	0	120
Malibu	07-08	262226	197280	459506	249	1389	2	265
Malibu	08-09	391381	463104	854485	429	3393	6	644
Malibu	09-10	548334	759515	1307849	525	5436	3	1050
Malibu	10-11	550488	903359	1453847	521	6057	9	1138
Malibu	11-12	537211	884203	1421414	460	5998	13	1029
Malibu	12-13	442701	726158	1168859	351	5256	2	883
Malibu	13-14	454788	669392	1124180	414	5122	4	988
Malibu	14-15	487531	748570	1236101	388	5186	6	967
Malibu	15-16	495189	698048	1193237	506	5023	1	1087
Malibu	16-17	513098	716784	1229882	461	5185	1	1062
Malibu	17-18	448958	621373	1070331	410	4214	15	923
Malibu	18-19	404938	520292	925228	359	3438	8	814
Malibu	19-20	425249	412622	837871	371	2728	8	768
Malibu	20-21	416295	422988	839283	303	2199	1	580
Malibu	21-22	455245	343517	798762	333	1683	1	348
Malibu	22-23	446534	234880	681414	331	1009	2	248
Malibu	23-24	428671	164194	592865	308	604	1	142

Malibu		8/23/97						
Office	Hour	ISP Call Sec.	Non-ISP Call Sec.	Total	ISP Calls	Non-ISP Calls	Unanswered ISP Calls	Unanswered Non-ISP Calls
Malibu	00-01	415852	129050	544702	228	288	0	85
Malibu	01-02	324667	75884	400551	125	182	0	88
Malibu	02-03	231633	33642	265275	72	127	0	62
Malibu	03-04	166743	22833	188576	66	88	0	29
Malibu	04-05	107951	11601	119552	41	72	0	33
Malibu	05-06	77108	12393	89501	37	69	0	38
Malibu	06-07	106321	24436	130757	79	181	0	50
Malibu	07-08	188758	101918	290676	138	549	0	141
Malibu	08-09	231182	266462	497644	185	1429	1	297
Malibu	09-10	303529	439202	742731	252	2644	0	640
Malibu	10-11	352397	483957	836354	284	3065	2	707
Malibu	11-12	372776	495407	868183	225	3209	0	740
Malibu	12-13	398058	443016	841074	290	2870	1	634
Malibu	13-14	434950	376284	811234	260	2587	1	605
Malibu	14-15	439336	335828	775164	291	2453	0	641
Malibu	15-16	400307	311948	712255	276	2251	3	485
Malibu	16-17	386102	353844	739946	280	2522	0	530
Malibu	17-18	352425	367132	719557	248	2378	2	545
Malibu	18-19	360964	374887	735851	280	2224	2	553
Malibu	19-20	289501	315817	605318	208	1987	0	474
Malibu	20-21	279404	283461	562865	232	1631	1	497
Malibu	21-22	304328	234885	539206	212	1290	1	357
Malibu	22-23	322549	199723	522272	221	960	1	262
Malibu	23-24	357989	139793	497782	211	509	0	151


Malibu 9/24/97
Call Seconds
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1200000
1000000
800000
600000
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200000
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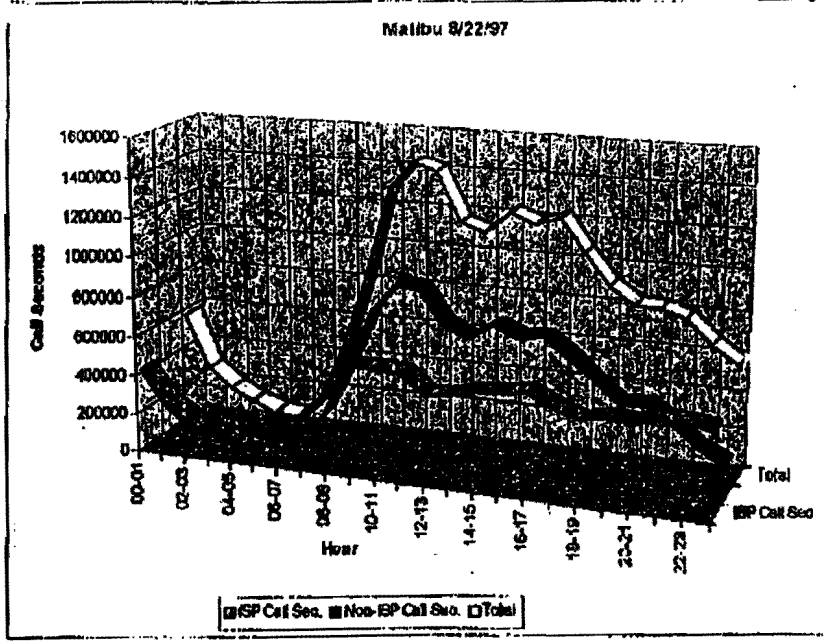
00-01
02-03
04-05
06-07
08-09
10-11
12-13
14-15
16-17
18-19
20-21
22-23
Hour
Total
ISP Call Sec
ISP Call Sec. Non-ISP Call Sec. Total


Malibu 9/22/97
Call Seconds
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1400000
1200000
1000000
800000
600000
400000
200000
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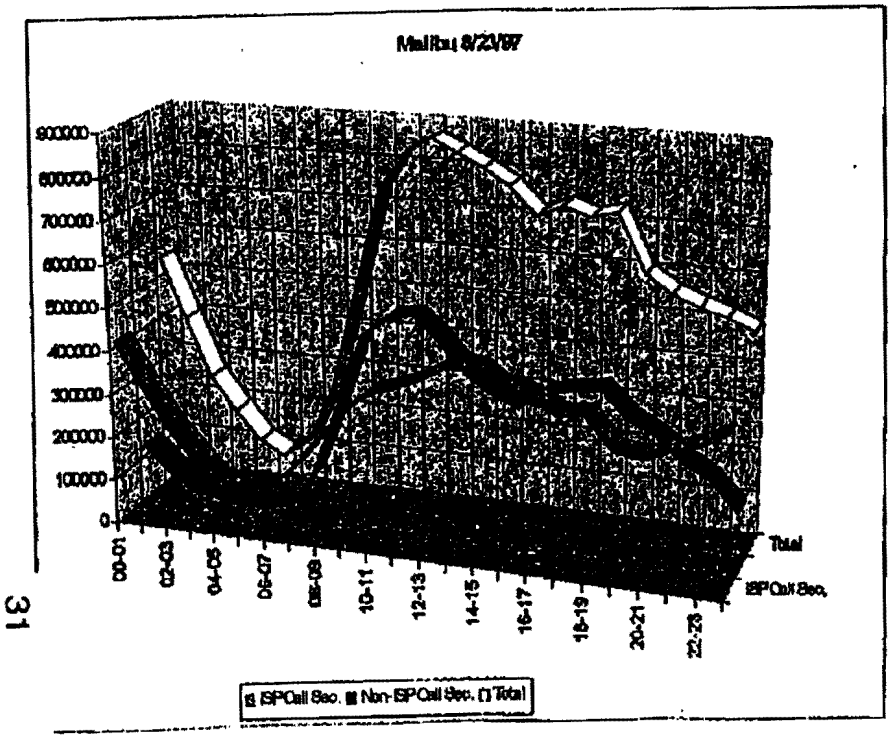
00-01
02-03
04-05
06-07
08-09
10-11
12-13
14-15
16-17
18-19
20-21
22-23
Hour
Total
ISP Call Sec
ISP Call Sec. Non-ISP Call Sec. Total


Malibu 9/23/97
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200000
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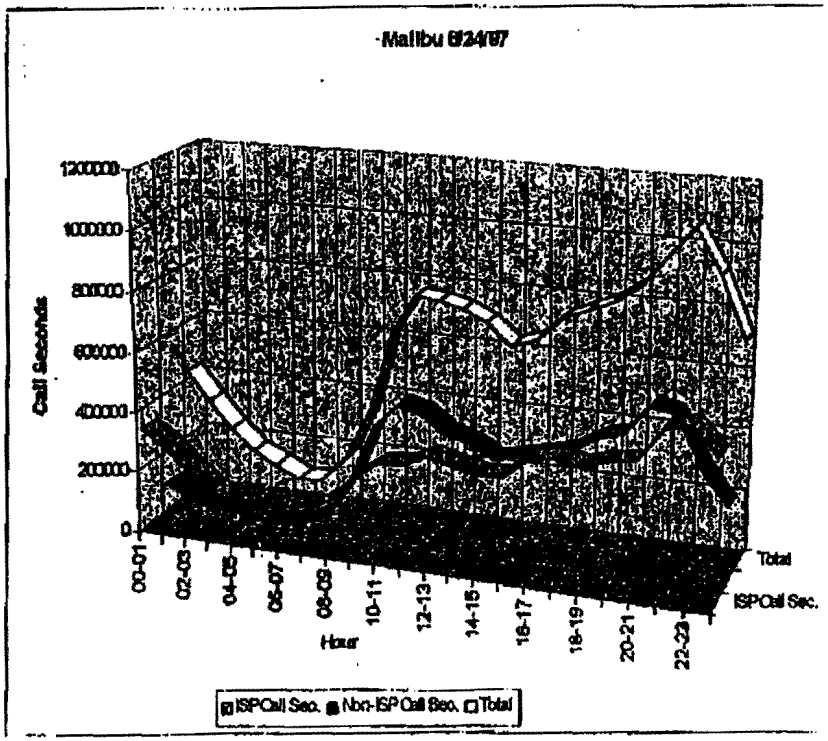
02-03
04-05
06-07
08-09
10-11
12-13
14-15
16-17
18-19
20-21
22-23
Total
ISP Call Sec.
ISP Call Sec. Non-ISP Call Sec. Total


Malibu 9/24/97
Call Seconds
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1000000
800000
600000
400000
200000
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00-01
02-03
04-05
06-07
08-09
10-11
12-13
14-15
16-17
18-19
20-21
22-23
Hour
Total
ISP Call Sec.
ISP Call Sec. Non-ISP Call Sec. Total

310-451-1209		8/21/97		
# Average Call holding time is 25.079901 for 243927.116667 MOU				
-----Hourly Totals-----				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	248	0	27.46129	5546.95
01-02	151	0	28.072627	3706.03
02-03	132	0	26.840025	2603.69
03-04	49	0	29.346259	1842.8
04-05	50	0	41.337333	1392.79
05-06	80	0	38.702083	1648.96
06-07	180	1	23.262685	2292.66
07-08	373	0	31.67319	4166.4
08-09	562	5	22.869365	5989.61
09-10	697	115	25.832018	7515.48
10-11	564	277	25.442908	7872.61
11-12	550	333	24.123333	8147.46
12-13	524	26	24.65299	7869.32
13-14	523	2	20.547036	7654.11
14-15	492	14	21.758943	7797.56
15-16	514	2	22.359987	7531.66
16-17	564	24	22.699941	7646.59
17-18	606	57	23.519709	7695.63
18-19	581	6	21.366895	7753.37
19-20	497	5	26.254896	7189.29
20-21	512	76	25.779199	7997.54
21-22	491	457	29.946812	6056.12
22-23	401	542	30.291604	6015.6
23-24	383	1	24.641819	7442.98

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310-451-1209		8/22/97		
# Average Call holding time is 24.900513 for 231475.166667 MOU				
-------Hourly Totals-------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	252	1	36.326916	6135.57
01-02	153	0	20.801307	3932.51
02-03	100	1	29.051167	2558.29
03-04	68	0	31.741176	1997.79
04-05	45	0	45.242963	1720.33
05-06	79	0	34.216034	1671.1
06-07	190	0	38.244649	2436.41
07-08	325	0	34.339077	4390.92
08-09	572	3	25.727826	6126.29
09-10	567	28	24.897531	7564.84
10-11	551	579	26.05977	8263.15
11-12	538	350	25.24052	8037.54
12-13	588	9	20.386791	7839.77
13-14	627	2	18.516401	7961.45
14-15	610	1	21.416175	7486.55
15-16	590	1	17.601441	7904.98
16-17	648	27	21.201235	7860.87
17-18	509	2	22.54201	7447.97
18-19	512	3	20.571745	7039.06
19-20	381	0	25.181671	6200.17
20-21	364	2	27.496429	5828.32
21-22	348	4	32.623946	6116.86
22-23	342	2	31.820468	6281.51
23-24	337	1	28.213155	6385.73

310-451-1209		8/23/97		
# Average Call holding time is 28.761728 for 186892.366667 MOU				
-------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	202	2	35.526485	4993.31
01-02	161	0	36.357764	4585.68
02-03	118	0	26.466983	3539.96
03-04	81	1	25.65679	2039.83
04-05	44	0	47.579924	1496.08
05-06	40	0	57.975833	1455.08
06-07	93	1	32.739068	1759.83
07-08	184	1	27.298732	2411.26
08-09	280	1	25.247679	3848.77
09-10	389	1	27.475407	5069.32
10-11	416	2	26.692748	5817.15
11-12	367	2	29.653678	6129.02
12-13	330	0	33.561313	5546.63
13-14	438	0	23.3207	5584.78
14-15	324	0	30.583128	5289
15-16	407	1	23.681695	5782.15
16-17	357	1	25.609384	5689.9
17-18	361	1	20.927976	5525.25
18-19	380	0	23.023772	5507.72
19-20	360	2	32.911435	6018.04
20-21	331	0	34.345972	5595.56
21-22	279	1	27.442294	5858.6
22-23	307	0	30.463735	5878.9
23-24	242	1	40.185262	5714.92

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310-451-1209		8/24/97		
# Average Call holding time is 28.911630 for 197756.916667 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	192	0	45.583507	5016.24
01-02	154	0	31.38842	4166.57
02-03	86	1	31.236364	3403.07
03-04	63	0	27.12672	2611.75
04-05	39	0	35.321795	1846.31
05-06	48	0	26.937847	1494.13
06-07	82	0	27.937602	1666.08
07-08	131	0	33.58672	2205.63
08-09	245	1	28.044218	3576.57
09-10	308	0	30.990963	4498.08
10-11	362	0	31.529561	5236.67
11-12	409	1	28.436064	6285.54
12-13	339	1	30.700492	6375.35
13-14	341	1	28.855963	6125.07
14-15	335	1	31.16597	5908.37
15-16	381	2	29.175459	6120.67
16-17	455	6	27.088462	6462.76
17-18	416	3	26.50833	6897.71
18-19	392	3	30.845196	7013.11
19-20	402	1	22.263226	6606.28
20-21	427	4	26.602498	6643.73
21-22	418	2	27.368099	7254.29
22-23	432	3	27.32554	7444.05
23-24	359	2	26.186115	6570.32

310-451-1209		8/25/97		
# Average Call holding time is 24.599894 for 253499.850000 MOU				
-------Hourly Totals-------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	199	1	27.197571	4956.62
01-02	129	0	28.168475	3532.31
02-03	102	0	25.45768	2577.92
03-04	57	0	12.980526	1465.95
04-05	47	0	30.90461	1201.86
05-06	64	0	34.696094	1271.12
06-07	222	2	27.592117	2429.78
07-08	377	0	28.611981	4469.43
08-09	587	3	22.568048	6216.08
09-10	672	163	24.312277	6343.91
10-11	606	113	24.180281	8265.07
11-12	668	6	23.79716	8014.86
12-13	559	192	23.424061	8281.69
13-14	610	35	25.361086	8197.54
14-15	579	10	19.882266	8020.97
15-16	627	130	20.313158	8276
16-17	565	438	27.765929	8568.36
17-18	576	1001	24.418981	8498.43
18-19	583	437	23.002872	8395.18
19-20	553	175	26.438728	8009.63
20-21	555	369	28.012763	8428.55
21-22	499	1408	29.475752	8519.46
22-23	454	1085	25.374229	8562.66
23-24	460	97	19.934348	7464.49

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805-230-2600		8/21/97		
# Average Call holding time is 21.995611 for 540568.133333 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	650	1	31.079641	16138.5
01-02	298	1	28.398986	10299.14
02-03	194	0	27.380584	5762.06
03-04	86	0	48.068217	3187.05
04-05	126	0	19.573545	2547.41
05-06	192	0	23.271094	2612.64
06-07	528	1	16.356775	3967.09
07-08	838	0	15.936742	6754.45
08-09	1081	1	17.580346	9305.73
09-10	1181	0	17.584999	11344.57
10-11	1217	3	19.584119	13348.75
11-12	1211	0	18.416846	13871.03
12-13	1213	1	19.911212	14370.93
13-14	1197	0	20.693804	14282.69
14-15	1241	3	21.809079	15174.72
15-16	1293	3	20.042434	16401.38
16-17	1404	0	17.692023	16210.81
17-18	1509	1	18.349194	16298.87
18-19	1533	1	19.559111	16806.6
19-20	1501	2	25.07767	16443.07
20-21	1731	5	24.510466	21933.08
21-22	1777	489	26.845864	26296.65
22-23	1501	613	27.907251	25972.99
23-24	1079	1	31.264473	22534.96

805-230-2600		8/22/97		
# Average Call holding time is 21.928047 for 512809.300000 MOU				
-------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	611	1	30.833361	16791.18
01-02	326	0	31.136861	10213.74
02-03	191	0	29.833682	5892.17
03-04	137	0	27.476642	3630.93
04-05	115	0	20.43029	2518.38
05-06	188	0	21.48617	2265.07
06-07	461	0	16.884563	3997.23
07-08	834	0	15.678357	6315.25
08-09	1027	0	17.693135	9062.89
09-10	1207	1	18.475545	11775.78
10-11	1221	0	19.742588	12809.94
11-12	1220	3	20.823443	14522.65
12-13	1188	0	18.243659	14407.15
13-14	1157	2	19.534587	14144.38
14-15	1276	1	20.290204	14869.02
15-16	1259	0	20.488152	15469.63
16-17	1467	2	19.496501	16227.04
17-18	1454	2	19.389386	16593.77
18-19	1391	5	20.064678	16468.16
19-20	1332	0	20.966141	15896.72
20-21	1434	1	25.662831	18203.68
21-22	1429	2	27.010019	21133.76
22-23	1421	3	28.002569	22453.31
23-24	1040	1	32.06508	21546.16

805-230-2600		8/23/97		
# Average Call holding time is 23.925245 for 492740.416667 MOU				
-----Hourly Totals-----				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	711	1	32.240624	17127.04
01-02	384	0	30.663542	12103.15
02-03	234	0	27.711823	7269.82
03-04	127	0	37.818766	4247.44
04-05	84	0	28.994643	2554.8
05-06	112	0	33.148512	2321.91
06-07	265	0	23.404969	3112.14
07-08	535	0	20.098411	5258.72
08-09	838	1	20.143136	8527.52
09-10	1084	1	21.005243	11309.71
10-11	1122	1	18.856714	12871.85
11-12	1160	0	20.163994	13169.47
12-13	1174	2	20.486783	13992.68
13-14	1056	0	21.06523	13699.48
14-15	1111	1	22.662316	14600.93
15-16	1189	2	22.252705	15823.04
16-17	1157	1	21.860429	15532.3
17-18	1129	0	21.39628	14766.15
18-19	1209	1	22.313992	15963.66
19-20	1138	1	24.757777	14502.93
20-21	1246	1	26.988764	17425.99
21-22	1243	0	30.306463	19698.97
22-23	1251	1	28.707008	21454.13
23-24	1036	0	28.655003	19754.73

805-230-2600		8/24/97		
# Average Call holding time is 23.120647 for 508865.433333 MOU				
----Hourly Totals----				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	626	0	34.244941	15894.7
01-02	378	0	34.571164	11861.52
02-03	207	1	29.844283	7224.23
03-04	171	0	21.6	3913.27
04-05	104	0	31.864904	2395.21
05-06	90	0	19.971111	1734.78
06-07	196	0	25.108165	2324.54
07-08	438	0	22.315639	4685.24
08-09	669	0	21.022197	6993.35
09-10	1017	2	19.629023	10220.52
10-11	1145	0	18.628763	12235.42
11-12	1209	0	18.771905	13329.84
12-13	1165	1	19.558827	13781.58
13-14	1231	0	22.065177	14492.82
14-15	1154	3	21.961915	14740.58
15-16	1164	1	21.54894	15164.91
16-17	1217	0	23.174254	15754.71
17-18	1305	11	20.356718	16647.06
18-19	1274	12	21.593053	16015.44
19-20	1318	12	23.761267	17457.89
20-21	1738	27	23.959599	20440.51
21-22	1740	56	24.342672	24617.69
22-23	1447	34	27.43179	23511.43
23-24	1005	18	28.83471	19913.87

805-230-2600		8/25/97		
# Average Call holding time is 19.528939 for 534233.666667 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	524	5	30.372100	14592.59
01-02	261	0	30.933142	8467.7
02-03	117	0	33.275641	5144.39
03-04	79	0	22.66962	2623.04
04-05	102	4	22.069118	1716.43
05-06	190	1	24.027016	2144.92
06-07	427	2	16.57377	3554.18
07-08	785	2	16.24913	6415.63
08-09	1056	1	18.641272	9686.97
09-10	1082	2	19.431608	11504.12
10-11	1197	2	17.835575	13018.08
11-12	1224	1	19.197072	13693.98
12-13	1162	4	20.083333	13603.42
13-14	1266	4	21.634663	15224.16
14-15	2252	9	7.989639	14543.07
15-16	2742	9	9.884209	13642.07
16-17	1565	6	18.548637	16762.18
17-18	1609	11	19.276984	18053.62
18-19	1571	6	19.432867	18111.61
19-20	1679	6	21.706577	19089.78
20-21	1921	18	23.993586	23433.48
21-22	1837	773	24.77867	26769.8
22-23	1615	83	28.715614	26070.38
23-24	1093	6	28.642406	22253.22

310-578-9165		8/21/97		
# Average Call holding time is 19.757634 for 382547.316667 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	537	0	27.456083	10802.45
01-02	235	0	31.57078	7346.48
02-03	175	0	24.944095	4243.51
03-04	99	0	24.906397	2529.58
04-05	78	0	31.429915	1737
05-06	131	0	24.011959	1732.92
06-07	384	0	16.53924	2871.39
07-08	775	1	15.649075	5934.32
08-09	1148	0	15.706025	9563.5
09-10	1286	424	16.83809	11630.57
10-11	1160	993	18.070115	12181.66
11-12	1238	772	17.27982	12265.51
12-13	1103	448	16.175008	11980.67
13-14	1166	245	17.317095	12188.1
14-15	1213	972	16.412036	12002.15
15-16	1078	444	18.264916	11728.93
16-17	1110	934	18.826396	12073.47
17-18	1187	1222	17.956838	12451.57
18-19	1106	751	19.875527	12218.86
19-20	951	300	21.368577	12095.44
20-21	870	1554	25.84772	12075.42
21-22	842	3994	27.509402	12505.64
22-23	753	4745	24.749557	12457.26
23-24	759	2543	28.262143	12300.23

310-578-9165		8/22/97		
# Average Call holding time is 20.199701 for 377128.416667 MOU				
-------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	536	91	27.121984	11547.12
01-02	290	0	29.819263	7170.12
02-03	141	0	30.821277	4378.42
03-04	101	0	27.25462	2997.28
04-05	98	0	21.87602	1867.91
05-06	139	0	20.179137	1694.32
06-07	345	0	18.126763	2754.53
07-08	725	0	15.921287	5745.89
08-09	994	0	17.461905	8348.31
09-10	1219	22	16.000424	10907.49
10-11	1202	209	17.025097	11759.45
11-12	1234	276	17.618463	12256.52
12-13	1064	8	18.637923	11860.19
13-14	1149	42	16.007572	12014.62
14-15	1078	278	18.974822	11730.96
15-16	1071	715	19.534672	12460.75
16-17	1080	1221	18.487346	12142.33
17-18	1160	480	17.332359	12179.1
18-19	1057	269	20.396768	11991.84
19-20	836	5	22.556493	10971.37
20-21	850	2	24.998608	11445.89
21-22	776	52	24.439025	11858
22-23	809	626	27.444726	12515.35
23-24	699	127	31.811755	12471.96

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310-578-9165		8/23/97		
# Average Call holding time is 23.012921 for 310053.083333 MOU				
-------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	541	85	31.145194	11885.84
01-02	323	0	28.044324	6209.72
02-03	182	0	29.812637	5569.67
03-04	103	0	26.9	3501.8
04-05	93	0	26.275269	2306.63
05-06	100	0	23.327	1471.68
06-07	176	0	22.798485	2049.07
07-08	377	0	20.234262	3881.97
08-09	526	0	17.588435	5282.84
09-10	704	0	21.742681	7197.26
10-11	781	0	20.348506	8553.24
11-12	770	1	21.209048	9206.66
12-13	716	0	21.232891	8875.75
13-14	708	0	20.673941	9048.5
14-15	733	0	20.752979	9120.06
15-16	767	0	20.53342	9151.62
16-17	830	0	21.76012	10175.63
17-18	770	5	21.309113	10424.4
18-19	791	1	19.63839	9796.87
19-20	672	4	23.629216	8585.35
20-21	703	1	27.561095	9723.5
21-22	719	1	25.901275	11211.2
22-23	759	166	28.6574	12121.71
23-24	629	26	25.956723	11616.27

310-678-9165		8/24/97		
# Average Call holding time is 23.020699 for 324937.166667 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	439	12	30.212035	9297.64
01-02	231	12	22.531169	5468.55
02-03	182	0	26.985348	4439
03-04	114	0	34.428316	3257.53
04-05	82	0	30.273984	1997.76
05-06	67	0	27.069652	1595.12
06-07	132	0	24.026515	1548.58
07-08	301	0	20.473311	2884.43
08-09	458	0	21.051055	4971.34
09-10	584	0	19.477854	6105.85
10-11	727	0	18.82006	7854.01
11-12	787	3	22.727319	9097.7
12-13	805	3	21.593085	10242.97
13-14	794	0	21.124475	10034.31
14-15	819	0	24.384392	10359.06
15-16	804	0	23.196994	10842.72
16-17	869	8	23.084687	11404.41
17-18	885	40	20.496668	11537.17
18-19	878	5	22.086219	11385.96
19-20	876	161	23.903198	11914.96
20-21	940	1001	20.316135	12166.16
21-22	811	2760	24.924681	11910.03
22-23	822	2675	25.021756	11936.53
23-24	728	526	27.854006	11913.31

310-578-9165		8/25/97		
# Average Call holding time is 17.147270 for 372438.700000 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	441	1	30.460431	10005.82
01-02	293	0	25.794767	6861.78
02-03	162	0	36.990132	4929.43
03-04	124	0	25.715457	2618.24
04-05	71	0	26.343662	1633.74
05-06	117	0	23.616239	1503.01
06-07	328	0	20.831809	2973.35
07-08	727	1	16.627235	5785.76
08-09	1070	1	15.843832	9210
09-10	1222	153	15.678682	11358.17
10-11	1254	1120	16.415776	12167.46
11-12	1210	1155	16.258678	11935.91
12-13	1142	464	18.143914	12087.87
13-14	1106	507	17.996368	12085.27
14-15	2003	887	7.60882	11613.23
15-16	2663	495	6.825397	10867.65
16-17	1150	2553	16.679014	12254.37
17-18	1132	2229	17.426767	11930.17
18-19	1100	1428	19.206939	11641.33
19-20	1060	1487	20.450912	11972.31
20-21	892	3957	23.852821	12227.24
21-22	801	6764	24.177632	12274.98
22-23	862	4604	24.649633	12025.16
23-24	800	2097	24.865271	12284.59

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Appendix D Pizza Hut Statistics

310-577-9897		8/21/97		
# Average Call holding time is 2.052104 for 211.366667 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	2	0	1.141667	1.37
01-02	0	0	0	0
02-03	0	0	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	0	0	0	0
09-10	3	0	1.638889	1.56
10-11	3	0	1.483333	4.4
11-12	2	0	1.225	1.47
12-13	6	0	2.3	6.51
13-14	7	0	1.816667	9.4
14-15	4	0	1.266667	2.49
15-16	6	0	1.244444	5.03
16-17	5	0	0.75	2.25
17-18	6	0	2.327778	7.85
18-19	12	0	2.461111	18.25
19-20	18	0	2.500926	23.89
20-21	12	0	2.443056	20.71
21-22	7	0	1.592857	6.69
22-23	6	0	2.758333	9.93
23-24	4	0	2.083333	5

310-577-9697		8/22/97		
# Average Call holding time is 1.837703 for 301.383333 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	1	0	0.066667	0.04
01-02	1	0	0.1	0.06
02-03	1	0	0.166667	0.1
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	0	0	0	0
09-10	0	0	0	0
10-11	1	0	1.083333	0.65
11-12	13	0	1.980769	15.34
12-13	4	0	2.370833	5.8
13-14	9	0	2.025926	10.94
14-15	8	0	1.079167	5.18
15-16	6	0	1.688889	6.08
16-17	11	0	2.174242	14.35
17-18	13	0	2.367949	18.36
18-19	16	0	1.8375	17.43
19-20	24	0	1.716667	25.05
20-21	26	0	1.889744	26.35
21-22	16	0	1.757292	16.88
22-23	8	0	2.010417	9.65
23-24	6	0	2.383333	8.58

310-677-9697		8/23/97		
# Average Call holding time is 2.080673 for 328.650000 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	4	0	2.6125	6.27
01-02	2	0	2.091667	2.51
02-03	1	0	0.05	0.03
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	0	0	0	0
09-10	1	0	0.866667	0.52
10-11	2	0	2.316667	2.78
11-12	4	0	3.991667	9.58
12-13	3	0	1.133333	2.04
13-14	14	0	3.52381	29.6
14-15	8	0	1.9125	9.18
15-16	3	0	1.083333	1.95
16-17	11	0	1.637879	10.8
17-18	19	0	1.330702	15.2
18-19	12	0	1.438889	10.4
19-20	20	0	1.966333	22.7
20-21	17	0	2.252941	24.1
21-22	26	1	2.235256	34.9
22-23	5	0	2.323333	6.97
23-24	5	0	2.17	6.51

310-577-9697		8/24/97		
# Average Call holding time is 2.107598 for 286.633333 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	7	0	1.683333	7.07
01-02	3	0	2.977778	5.36
02-03	0	0	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	0	0	0	0
09-10	0	0	0	0
10-11	4	0	2.125	5.05
11-12	0	0	0	0.05
12-13	3	0	2.555556	4.6
13-14	1	0	0.266667	0.16
14-15	9	0	1.864815	10
15-16	9	0	2.494444	11.09
16-17	16	0	1.821875	19.94
17-18	11	0	2.043939	13.49
18-19	12	0	2.156944	15.53
19-20	14	0	1.92619	14.26
20-21	13	0	1.839744	16.27
21-22	15	0	2.197778	19.78
22-23	12	0	2.356944	16.35
23-24	7	0	2.942857	7.13

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310-577-9697		8/25/97		
# Average Call holding time is 2.421978 for 220.400000 MOU				
-------Hourly Totals-------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	1	0	0.45	6.12
01-02	0	0	0	0
02-03	0	0	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	0	0	0	0
09-10	1	0	0.433333	0.26
10-11	2	0	15.066667	18.08
11-12	1	0	4.183333	2.51
12-13	6	0	3.122222	7.96
13-14	3	0	2.694444	8.13
14-15	9	0	2.125926	11.48
15-16	4	0	1.6125	3.87
16-17	8	0	2.7125	13.02
17-18	8	0	1.345833	6.19
18-19	12	0	1.816667	13.35
19-20	11	0	2.60303	16.91
20-21	7	0	1.866667	8.11
21-22	11	0	2.313636	15.27
22-23	3	0	1.355556	2.44
23-24	4	0	1.829167	4.39

310-456-3304		8/21/97		
# Average Call holding time is 2.036395 for 99.783333 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	1	0	2.683333	1.61
01-02	0	1	0	0
02-03	0	0	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	0	1	0	0
09-10	3	0	0.305556	0.55
10-11	3	0	0.538889	0.97
11-12	3	0	3.533333	6.06
12-13	3	0	1.383333	2.79
13-14	2	0	0.733333	0.88
14-15	3	0	3.244444	5.84
15-16	2	0	3.725	4.47
16-17	3	1	3.566667	6.42
17-18	4	0	1.141667	2.74
18-19	8	0	1.839583	8.83
19-20	2	0	1.491667	1.79
20-21	4	0	0.916667	2.2
21-22	4	0	1.783333	4.28
22-23	1	0	8.633333	5.18
23-24	3	0	2.922222	5.26

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310-456-3304		8/22/97		
# Average Call holding time is 1.343411 for 57.766667 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	1	0	0.333333	0.2
01-02	0	0	0	0
02-03	0	0	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	1	2	0.2	0.12
09-10	1	0	0.966667	0.58
10-11	2	0	1.35	1.62
11-12	2	0	0.883333	1.06
12-13	4	0	1.383333	3.32
13-14	2	0	1.616667	1.94
14-15	4	0	1.320833	3.17
15-16	1	0	3.06	1.65
16-17	4	0	1.295833	3.29
17-18	2	0	1.466667	1.76
18-19	4	0	1.783333	4.28
19-20	2	0	1.066667	1.28
20-21	7	1	1.480952	6.22
21-22	2	1	1.308333	1.57
22-23	2	0	1.55	1.86
23-24	2	0	0.616667	0.74

310-456-3304		8/23/97		
# Average Call holding time is 2.500000 for 70.000000 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	1	0	1.95	1.17
01-02	0	0	0	0
02-03	0	0	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	0	0	0	0
09-10	0	1	0	0
10-11	0	0	0	0
11-12	1	0	7.583333	3.16
12-13	2	0	2.216667	4.03
13-14	1	0	1.616667	0.97
14-15	1	0	4.05	2.43
15-16	0	0	0	0
16-17	2	0	1.883333	2.26
17-18	1	0	0.616667	0.37
18-19	8	0	1.660417	7.97
19-20	4	0	1.85	4.44
20-21	4	0	3.275	7.86
21-22	2	0	3.758333	4.51
22-23	0	0	0	0
23-24	1	0	4.683333	2.81

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310-456-3304		6/24/97		
# Average Call holding time is 1.747222 for 52.416667 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	0	0	0	0
01-02	0	0	0	0
02-03	0	0	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	0	0	0	0
09-10	0	0	0	0
10-11	1	0	0.133333	0.08
11-12	0	0	0	0
12-13	8	0	1.83125	8.79
13-14	1	0	6.666667	4
14-15	1	0	0.15	0.09
15-16	3	0	1.55	2.79
16-17	1	0	1.033333	0.62
17-18	0	0	0	0
18-19	3	0	1.655556	2.98
19-20	1	11	3.533333	1.72
20-21	10	41	1.618333	10.11
21-22	0	0	0	0
22-23	0	0	0	0
23-24	1	0	0.45	0.27

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310-456-3304		8/25/97		
# Average Call holding time is 2.263836 for 119.983333 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	0	0	0	0
01-02	0	0	0	0
02-03	0	0	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	0	0	0	0
09-10	0	0	0	0
10-11	3	0	2.811111	5.06
11-12	4	2	0.845833	2.03
12-13	5	0	3.746667	11.24
13-14	5	0	2.96	8.88
14-15	4	0	1.7875	4.29
15-16	2	0	1.341667	1.61
16-17	3	0	1.944444	3.5
17-18	6	0	2.327778	8.38
18-19	6	0	3.102778	11.17
19-20	7	0	1.47619	6.2
20-21	3	0	1.494444	2.69
21-22	4	0	2.791667	6.7
22-23	0	0	0	0
23-24	1	0	0.4	0.24

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310-823-0080		8/21/97		
# Average Call holding time is 1.722333 for 66.116667 MOU				
-------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	0	0	0	18.83
01-02	0	0	0	0
02-03	0	1	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	1	0	1.766667	1.06
08-09	0	0	0	0
09-10	4	1	2.445833	3.39
10-11	4	0	1.5	6.08
11-12	3	0	2.433333	4.38
12-13	2	0	0.7	0.84
13-14	1	0	2.466667	1.48
14-15	3	0	1.25	2.25
15-16	1	0	2.483333	1.49
16-17	1	0	0.616667	0.37
17-18	5	0	0.596667	1.79
18-19	3	0	2.438889	4.39
19-20	2	2	2.45	2.94
20-21	12	0	1.1125	8.01
21-22	2	0	1.291667	1.86
22-23	4	4	4.583333	11.17
23-24	2	0	0.541667	0.65

310-823-0080		8/22/97		
# Average Call holding time is 1.235345 for 71.650000 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	1	0	0.15	0.09
01-02	0	0	0	0
02-03	0	0	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	1	0	0.35	0.21
08-09	2	0	0.125	0.15
09-10	1	0	0.383333	0.23
10-11	2	0	0.125	0.15
11-12	1	0	2.116667	1.27
12-13	2	0	0.75	0.9
13-14	1	0	1.766667	0.32
14-15	3	0	1.85	4.07
15-16	5	0	1.793333	5.34
16-17	1	0	3.733333	2.28
17-18	0	0	0	0
18-19	5	0	0.826667	2.48
19-20	11	4	1.237879	8.17
20-21	10	1	1.048333	6.29
21-22	3	1	0.855556	1.54
22-23	3	1	1.661111	2.99
23-24	6	0	1.808333	6.51

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310-823-0060		8/23/97		
# Average Call holding time is 1.381250 for 66.300000 MOU				
-------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	5	0	1.283333	3.85
01-02	0	0	0	0
02-03	0	1	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	1	0	4.233333	2.54
09-10	1	0	0.666667	0.4
10-11	4	1	0.8875	2.13
11-12	0	0	0	0
12-13	5	0	0.623333	1.87
13-14	2	0	0.8	0.96
14-15	6	0	0.988889	3.56
15-16	0	0	0	0
16-17	1	0	2.433333	1.46
17-18	2	0	1.633333	1.96
18-19	8	0	1.379167	6.62
19-20	5	0	0.646667	1.94
20-21	3	0	2.727778	4.91
21-22	3	0	3.172222	5.71
22-23	1	0	1.866667	1.12
23-24	1	0	1.25	0.75

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310-823-0080		8/24/97		
# Average Call holding time is 1.713000 for 85.650000 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	0	0	0	0
01-02	0	0	0	0
02-03	0	0	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	0	0	0	0
08-09	0	0	0	0
09-10	0	0	0	0
10-11	1	0	0.25	0.15
11-12	0	0	0	0
12-13	2	0	0.316667	0.38
13-14	1	0	0.4	0.24
14-15	2	0	1.441667	1.73
15-16	1	0	1.083333	0.65
16-17	6	0	0.630556	2.27
17-18	3	0	2.75	3.06
18-19	8	1	2.00625	11.53
19-20	7	3	2.007143	8.43
20-21	11	14	2.406061	14.43
21-22	3	1	2.038889	5.12
22-23	5	1	1.136667	3.41
23-24	0	0	0	0

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310-823-0080		8/25/97		
# Average Call holding time is 1.611364 for 70.900000 MOU				
------Hourly Totals------				
Hour	Number of Calls	No. Calls Not Ans.	Ave. Call hold time (Min.)	CCS
00-01	0	0	0	0
01-02	1	0	0.1	0.06
02-03	0	0	0	0
03-04	0	0	0	0
04-05	0	0	0	0
05-06	0	0	0	0
06-07	0	0	0	0
07-08	1	0	0.466667	0.28
08-09	0	0	0	0
09-10	1	0	1.266667	0.76
10-11	0	0	0	0
11-12	1	0	0.05	0.03
12-13	2	0	2.816667	3.38
13-14	1	0	3.533333	2.12
14-15	0	0	0	0
15-16	2	0	0.758333	0.91
16-17	7	1	0.928571	3.9
17-18	0	0	0	0
18-19	2	0	1.858333	2.23
19-20	7	0	2.809524	11.8
20-21	5	0	2.186667	6.56
21-22	7	4	0.485714	2.04
22-23	3	0	2.122222	3.82
23-24	4	0	1.9375	4.65

Request No. 20:

Identify (by month and by year) the average duration (in minutes) and the total number of all local calls delivered to your ISP customers (including any ISP affiliate) for the most recent 18 month period available, and produce documents sufficient to support this calculation.

Response to Request No. 20:

GTE does not routinely track usage associated with dial-up calls to ISPs served by GTE . However, GTE does have traffic study information available that reflects dial-up usage to ISP customers served via PRI trunk groups and can determine the duration of calls (i.e., average holding times) to individual PRI trunk groups with this information. GTE further states that it does not track the total number of calls delivered to ISPs and, other than the sample data available, is unable to produce such data. The following provides a summary of sample information available in three of GTE's central offices with PRI service to ISP customers:

Average Holding Time

1/11/2000	2/8/2000	3/8/2000

Laguna Beach	24 Minutes	26 Minutes	25 Minutes
Ridgecrest	35 Minutes	27 Minutes	25 Minutes
Thousand Oaks	22 Minutes	24 Minutes	25 Minutes

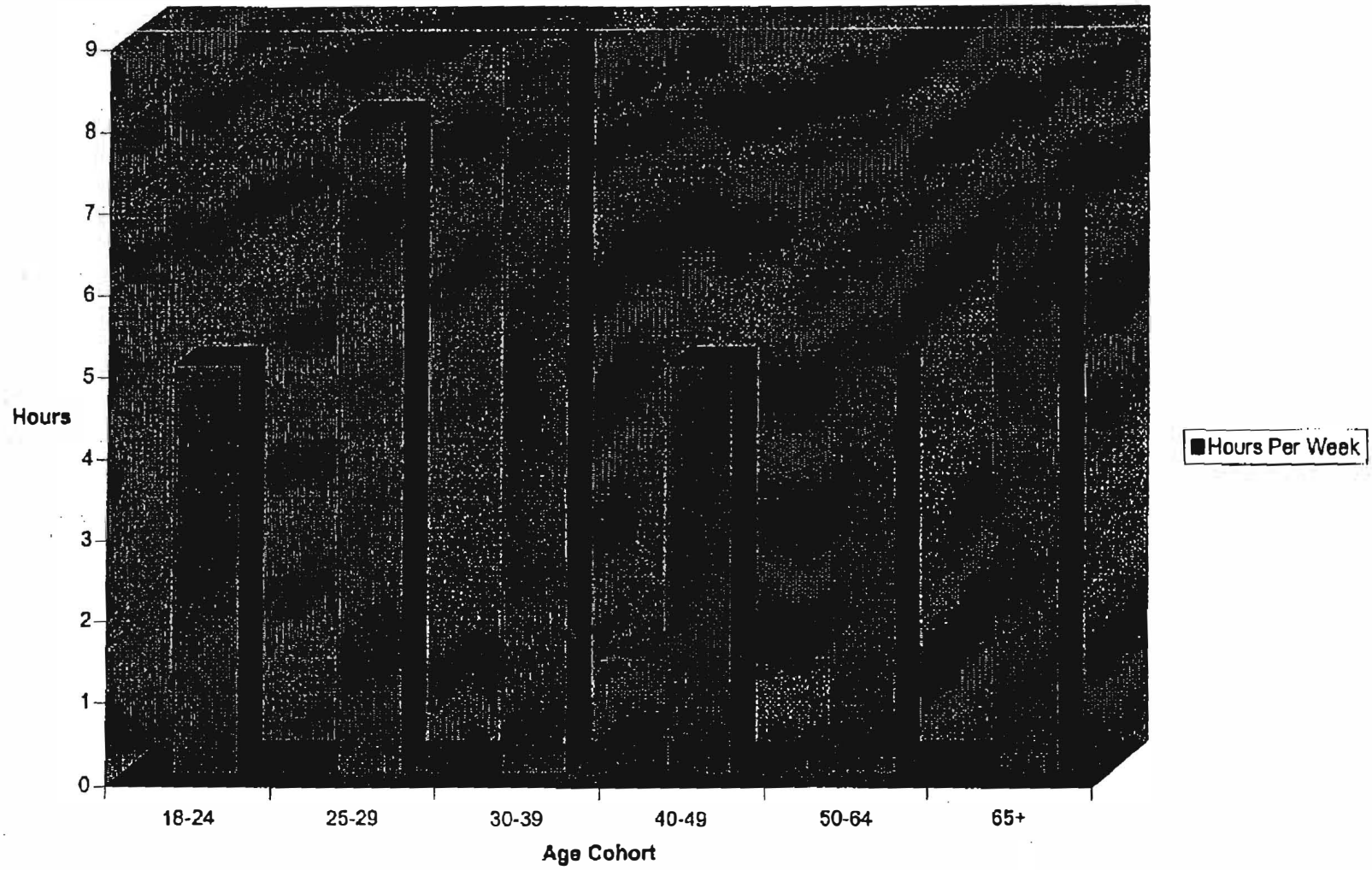
Prepared by: Greg Windmiller

Request No. 21:

Identify (by month and by year) the average duration (in minutes) and the total number of all local calls that you delivered to each of your ISP affiliate for the most recent 18 month period available, and produce documents sufficient to support this calculation.

Harris Poll
USA Today
June 1, 1999

Internet Hours Per Week



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service and, in particular, the costs of transporting and terminating local calls: *scale* and *facilities mix.*

Scale. The overall cost of constructing and operating a telecommunications network are heavily impacted by the overall volume of traffic and number of individual subscribers that the network is designed to serve; that is, telecom networks are characterized by substantial *economics of scale and scope.* As I have previously noted, CLECs serve a far smaller customer population and carry far less traffic than do ILECs. Because they are necessarily forced to operate at a far smaller scale, CLEC networks may exhibit higher average costs than ILEC networks. These higher average costs may be combated in some cases if a CLEC is able to achieve *economies of specialization*, i.e., focusing upon a narrow range of customers and services, but serving those customers extremely efficiently. From this perspective, CLECs that have concentrated their marketing efforts thus far on customers that receive calls may be attempting to achieve economies of specialization, precisely to offset the cost disadvantages associated with relatively small scale and limited scope.

Q. Are there other ways in which a CLEC's relatively small scale of operations may affect the level of its costs?

Thus, the FCC correctly viewed the possibility of CLECs lowering their own termination costs below the symmetric rate (and thereby receiving payments higher than their forward-looking economic costs) as a positive development and a consequence of competition and innovation.

Q. Some ILECs have contended that CLECs' costs of terminating ISP-bound calls are substantially less than those confronting ILECs because CLECs have been able to acquire specialized switches that are designed specifically to handle high inward calling volumes. Under those circumstances, would it be reasonable for CLEC termination charges to be set below those being imposed by ILECs?

A. No, it would not. As I have just explained, the FCC established the requirement for symmetric termination rates for reciprocal compensation fully recognizing that some CLECs may achieve a lower cost level than the ILEC's, and thus be rewarded with higher profits. To the extent that certain CLECs are deploying advanced switching technologies designed to efficiently provide high-volume inward calling services, they simply are responding to the economic incentives created by the FCC's symmetry rule, and by succeeding in this market, they are showing that the rule is in fact promoting competition.

HEWLETT PACKARD

AcceSS7 Network Study

Internet Service Provider

Prepared for: GTE Telops
April 30, 1997

Prepared by: Jim Baker
Hewlett-Packard Co

Study Period: **April 13 - 19, 1997**

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EXECUTIVE SUMMARY

The activity of Internet Service Providers (ISP's) providing dial-up access to the Internet has caused concern over the required resource demands on the local telephone network. These ISP's typically provide service at a flat monthly rate for unlimited access.

The recent growth of several of the large ISP's prompted GTE to study in more detail the calling patterns of these service companies and how they may differ from the normal patterns for which the network was engineered. In the some cases, ISP's have advertised a mass event, such a "chat with a celebrity", creating a mass calling for the local telephone network with 10,000+ calls to a single ISP within several hours.

The purpose of this study was to determine an estimate of the call volume and resource usage by these ISP's. The estimate was made using the Hewlett-Packard SS7 monitoring system, AcceSS7, to measure all calls terminating to GTE offices in part of Tampa, Florida where a number of ISP's have service. Using the data from each call, further data analysis was performed to create hourly and daily trend reports.

Data was collected for an exact one-week period, including weekend and weekday traffic.

Of particular interest were not only the number of call attempts but also the percentage of line usage of ISP's over all other calls. As well, daily and hourly trending information of these values was desired.

The report found a substantial amount of ISP traffic compared to other traffic. On weekend days, ISP line usage exceeded that for all other calls combined. For weekdays, the ISP line usage only exceeded other calls during late night and early morning hours.

In particular, the line resources consumed by the ISP's indicate significantly longer call durations. As well, the daily and hourly trend shows that the ISP's promote different usage patterns than that of normal calls.

Data Collection

The installed AcceSS7 equipment monitored and recorded all terminating calls to three specified end offices in the Tampa, Florida LATA:

Ybor City	YBCTFLXA24H	240-149-21
Tampa East	TAMPFLXEDS0	240-149-85
Tampa Main	TAMPFLXX27H	240-149-23

Network Topology for Study

In Tampa, Florida, a number of ISP's were selected that had service from one of three Central Office locations.

These offices were connected to the GTE SS7 network by the Tampa and Clearwater pair of Signaling Transfer Points (STP's) as shown below. Nearly[1] all calls into these offices have call setup data on these SS7 links which contains all needed information including call origin, destination, and duration.

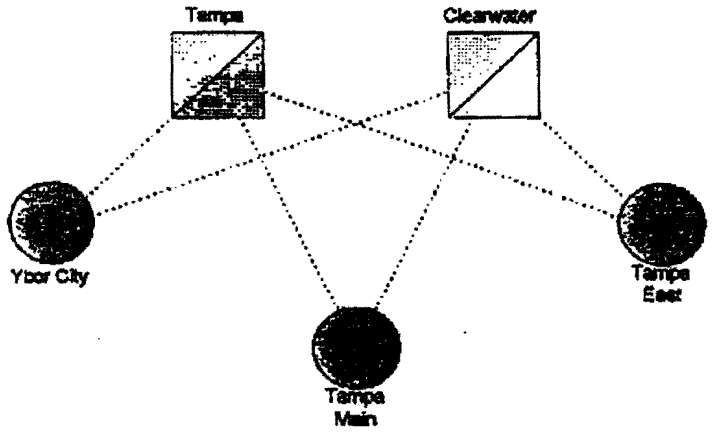


Figure 1 – SS7 Network for Tampa Study

Each of these offices have trunk and line interfaces. The trunk (network side) interfaces connect each office to other offices in the GTE network. The line (subscriber side) interfaces provide dial-tone to customers.

Since the study includes all terminating phone calls, the results could apply to both sides, depending on the resource being engineeed.

[1] This would not include calls that are completed using inbound signaling (MF trunks), such as Operator assisted or Pay Phone.

SCOPE OF STUDY

This study was performed during a complete, seven-day week from April 13 through April 19, 1997.

Data from all terminating calls to three offices were collected.

Location	CLLI	Point Code
Ybor City	YBCTFLXA24H	240-149-21
Tampa East	TAMPFLXEDS0	240-149-85
Tampa Main	TAMPFLXX27H	240-149-23

GTE provided a list of 18 ISP's terminating numbers. All other calls were considered to be "non-ISP", although it is likely that other numbers were providing unrecognized ISP service as well.

ACCESS7 IMPLEMENTATION

With the cooperation and assistance of the Tampa and Clearwater GTE personnel, Hewlett-Packard installed the AcceSS7 monitoring system at the two STP locations in Tampa Florida.

This allowed for complete, yet non-intrusive, access to the SS7 links to the specified central offices.

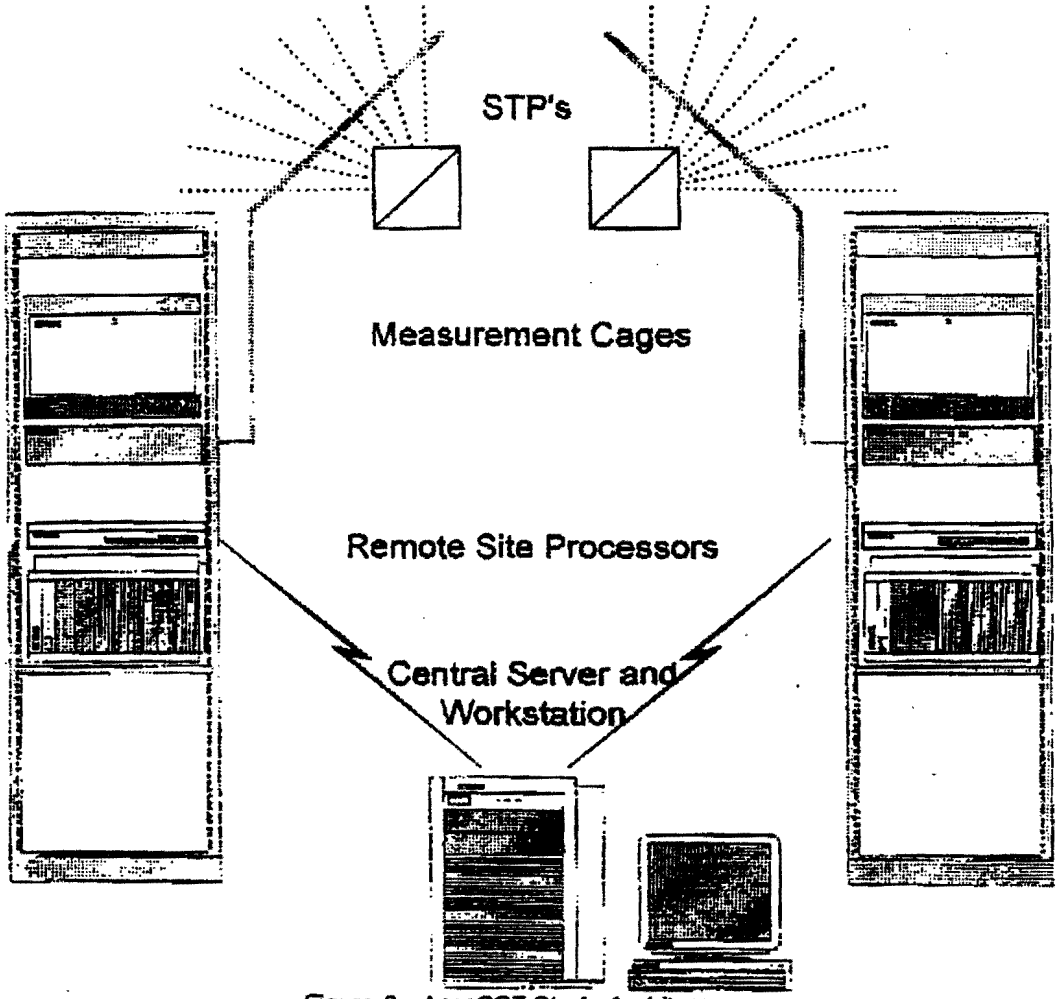


Figure 2 - AcceSS7 Study Architecture

A collection of hardware and software was deployed including:

- Measurement Card Cages
- Remote Site Processors
- Central Server
- Analysis Workstation

The previous diagram shows how the AcceSS7 system components were deployed to monitor the SS7 links and transmit the data back to the central server and workstation for analysis.

The data for each call was maintained on disk and used by analysis routines executed on the workstation. The results were then gathered remotely for this report as well as transmitted to GTE for daily reports.

OFFICE TRAFFIC

WEEKLY CALL VOLUME

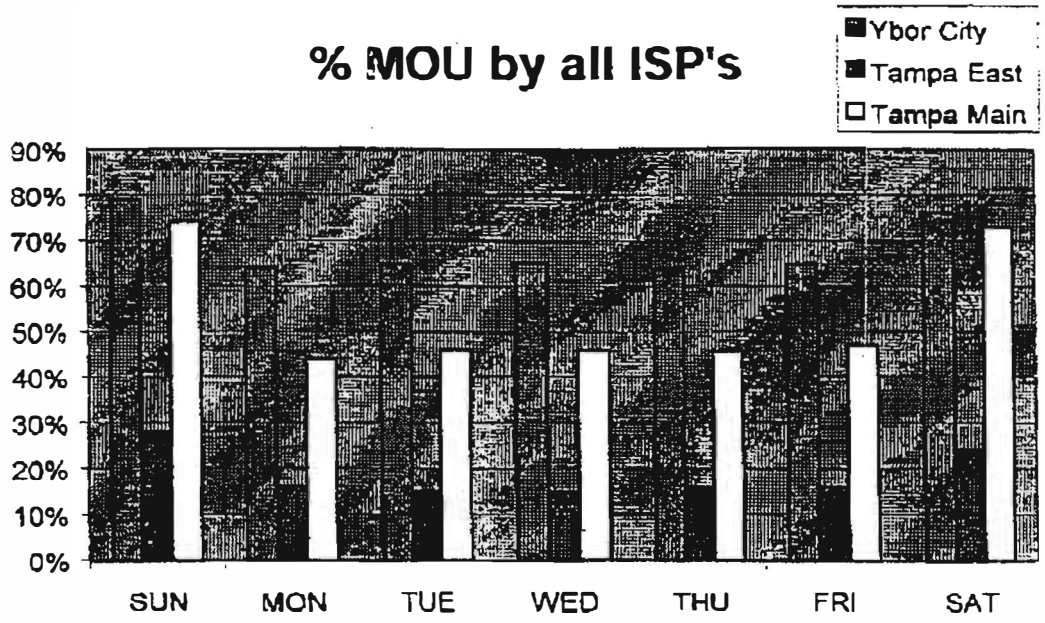
Each day, several statistics were collected for each office showing the number of phone calls and % line usage. The table below shows the total values for the entire week.

Location	Total Calls / Average %Usage
Ybor City	
Non-ISP Calls:	**1,123,389**
ISP Calls:	**353,035**
Non-ISP % Usage:	**32%**
ISP % Usage:	**68%**
Tampa East	
Non-ISP Calls:	**5,597,352**
ISP Calls:	**84,659**
Non-ISP % Usage:	**81%**
ISP % Usage:	**19%**
Tampa Main	
Non-ISP Calls:	**1,353,175**
ISP Calls:	**205,754**
Non-ISP % Usage:	**46%**
ISP % Usage:	**54%**

DAILY % USAGE

Percentage usage values are calculated as a percentage of ISP line usage over total line usage for all calls. Unanswered calls have zero usage.

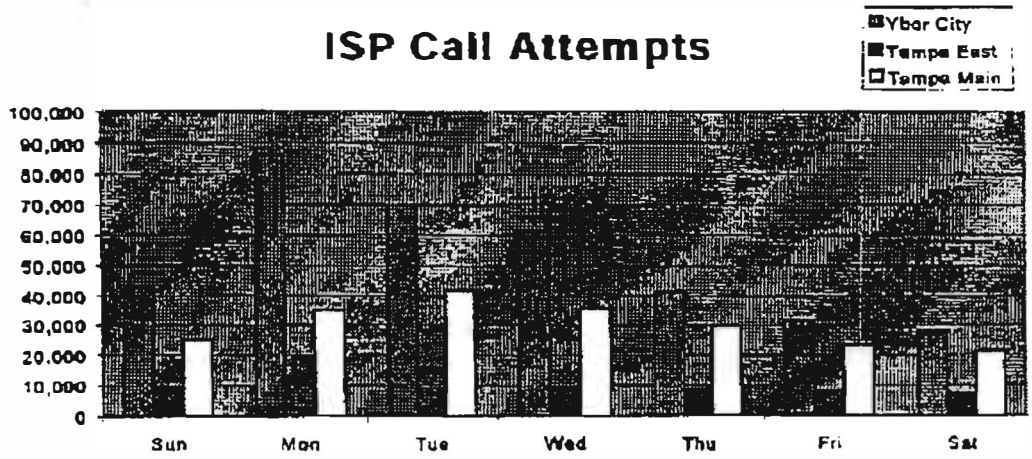
Note that these values do not show the % usage based on switch capacity, but only compared to other switch usage during that day.



DAILY CALLS TO ISP'S

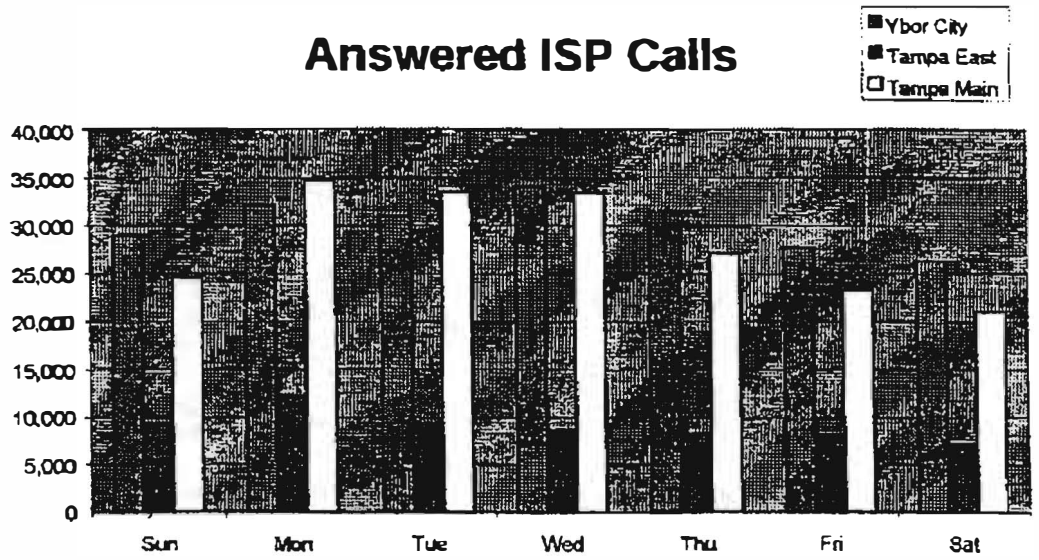
Call attempts are based on the count of ISUP Initial Address Messages (IAM's) to the central office, regardless of whether the calls were answered or busy.

All ISP numbers are included in the values below, grouped by the end-office that serves them.



The following chart shows the number of answered calls each day on each end office.

All ISP numbers are included in the values below, grouped by the end-office that serves them.



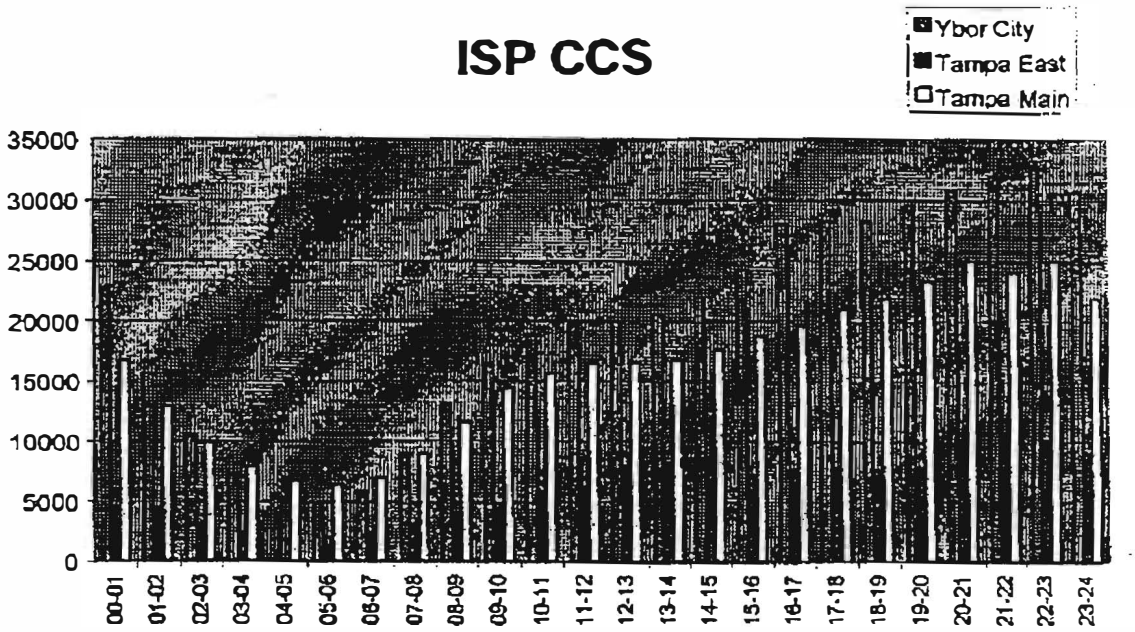
Non-ISP calls were shown to be around 70-75% completed, with the remainder as unanswered or busy. However, the percentage of answered calls to ISP's are significantly lower.

In particular, the Ybor City end office has far more call attempts than that of the other offices - nearly half of the calls to the Ybor City ISP's are not answered. This would indicate the Ybor City ISP's have insufficient resources to answer calls successfully.

HOURLY OFFICE TRENDS

The chart below shows the average total line usage per office in each hour. The average is calculated from each hour period during the seven-day study.

All ISP numbers are included in the values below, grouped by the end-office that serves them.



ISP ACTIVITY

POPULATION

GTE provided a list of 18 ISP's terminating numbers, shown below. Also shown are the total numbers of calls and total usage in CCS[2] for the week.

Location	Number	Calls	Usage
Tampa Main	813-209-4300	4,060	60,610
Tampa Main	813-209-9210	571	10,462
Ybor City	813-247-6514	206	1,981
Ybor City	813-247-7775	285,355	2,235,065
Ybor City	813-247-7863	75,272	1,096,390
Tampa Main	813-273-3755	7,411	59,357
Tampa Main	813-276-2265	3	0
Tampa Main	813-276-9824	11,925	207,795
Tampa Main	813-907-2200	48,355	43,219
Tampa Main	813-307-6000	139,576	2,321,278
Tampa East	813-620-1134	4	0
Tampa East	813-621-1178	70,159	997,028
Tampa East	813-621-2115	273	590
Tampa East	813-621-7547	27	165
Tampa East	813-623-4083	26	134
Tampa East	813-626-1148	140	377
Tampa East	813-626-3904	31	0
Tampa East	813-626-5446	54	464

These numbers show that a few ISP's have relatively lower traffic volumes. For this study, all given ISP numbers were included for data analysis figures, however some charts may omit the ISP's with low traffic to make the graphical results more readable.

[2] Centum Call Seconds, CCS, indicates the amount of line usage in one hour. One hour of 100% usage on a single line is 3600 call-seconds, or 36.00 Centum Call Seconds.

ISP AND NON-ISP COMPARISON

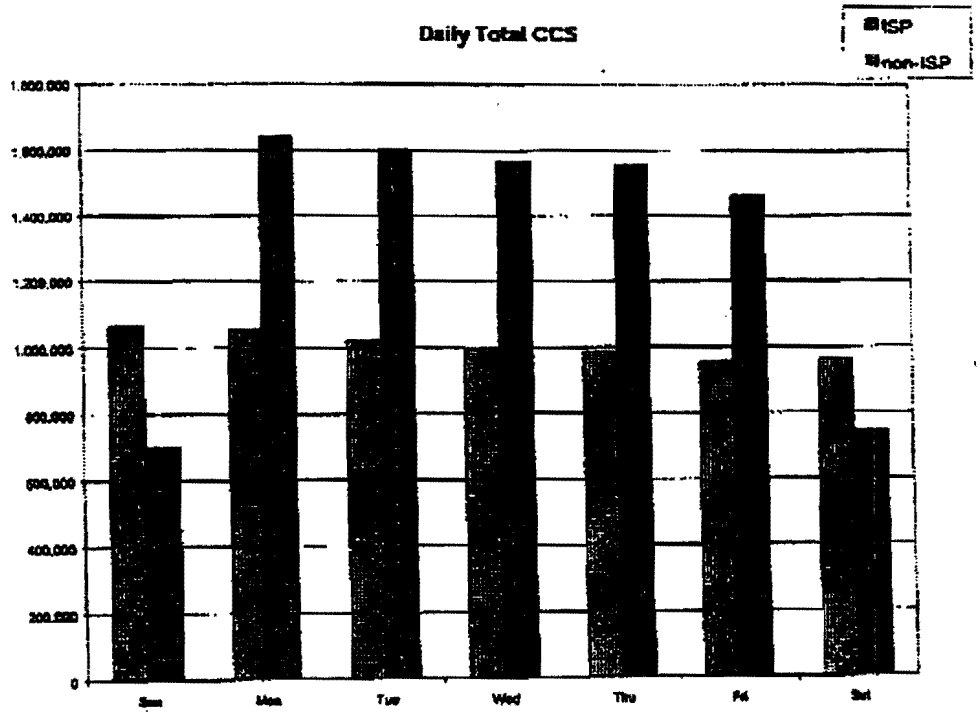
DAILY TRENDS

Call Attempts

Day	non-ISP Calls:	ISP Calls:
SUN	58,0126	76,907
MON	1,408,725	133,974
TUE	1,448,822	127,290
WED	1,415,840	105,687
THU	1,346,651	79,548
FRI	1,219,484	63,453
SAT	654,268	56,589
Total	8,073,916	643,448

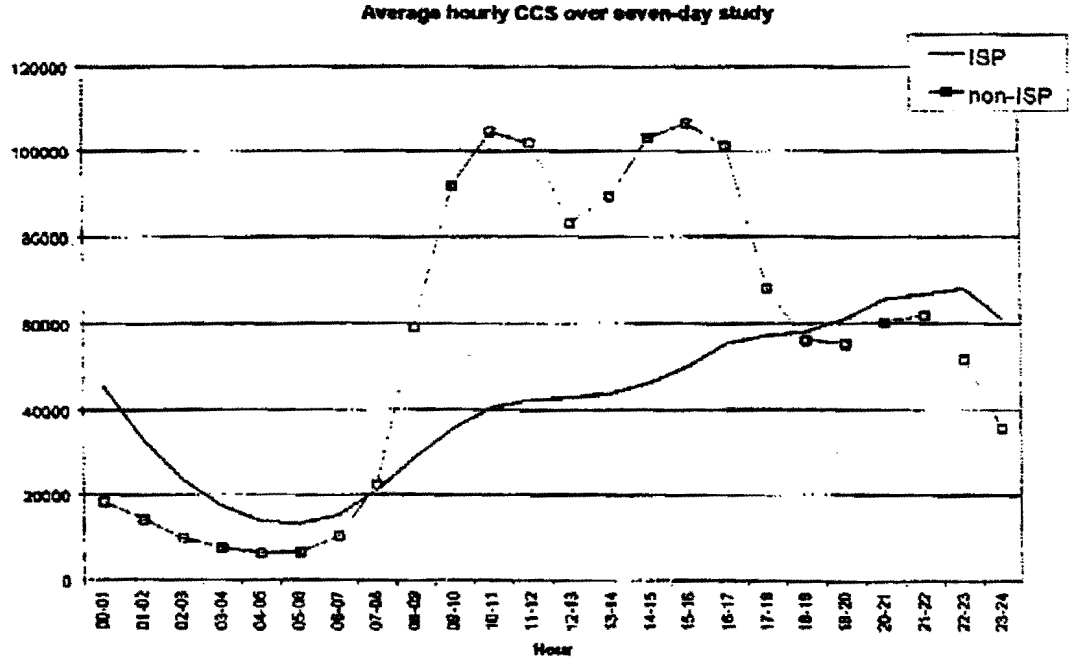
Usage

The following chart shows that ISP CCS actually exceeds non-ISP volume during weekend days.



HOURLY TRENDS

The following chart shows that ISP CCS actually exceeds non-ISP volume during off-peak hours. In addition, there is a steady increase in ISP usage during the day while the non-ISP usage is rapidly increasing as well.



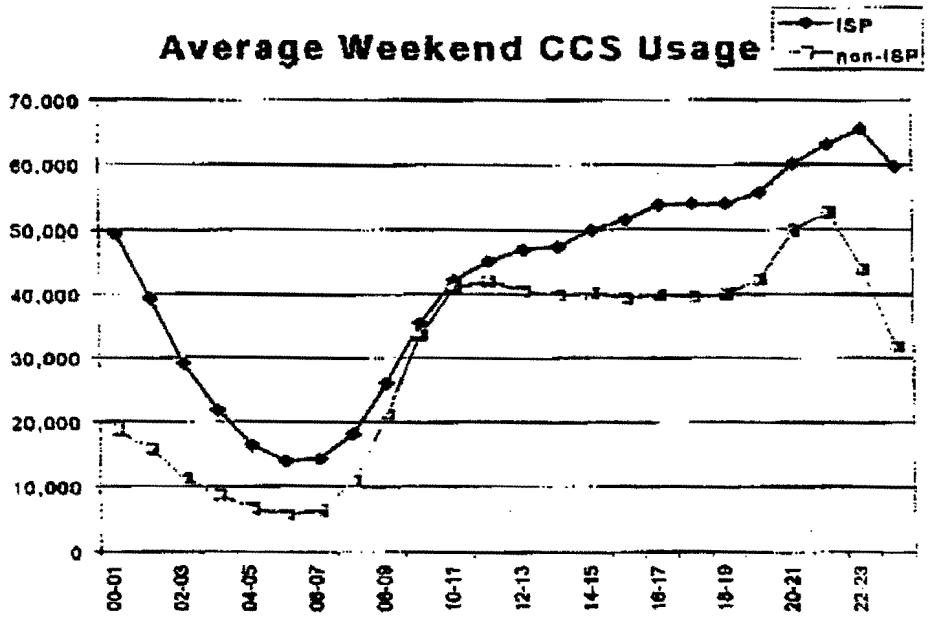
The above chart is an average over all seven days of the study. If weekend and weekdays are separated, the usage is different.

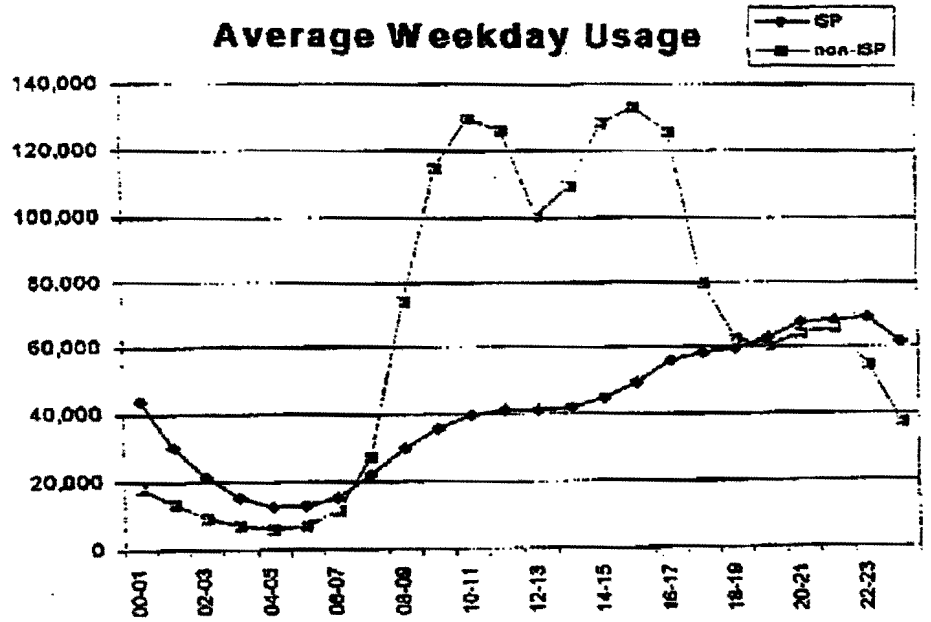
Weekdays show several features:

- High usage during early morning and late evening hours, with a peak in 9:00pm hour.
- Steady increase during working hours, with a slight plateau during the noon (lunch) hour.
- Non-ISP busy hours at 10:00am and 3:00pm.

Weekend days show several features as well:

- High usage during early morning and late evening hours, with a peak in 9:00pm hour.
- Faster increase during morning hours, continuing during day.
- Non-ISP busy hour in evening (reduced calling rates)


Average Weekend CCS Usage
ISP
non-ISP
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
00-01
02-03
04-05
06-07
08-09
10-11
12-13
14-15
16-17
18-19
20-21
22-23


Average Weekday Usage
ISP
non-ISP
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
00-01
02-03
04-05
06-07
08-09
10-11
12-13
14-15
16-17
18-19
20-21
22-23

CALL DURATION

The average call duration for ISP calls is shown below to be greater than that of non-ISP calls.

ISP	Average Duration
2094300	29.71268
2099240	24.83988
2476514	14.42381
2477775	26.67494
2477863	29.90851
2733755	16.81899
2762265	0
2769824	34.86744
3072200	2.008988
3076000	38.61875
6201134	0
6211178	28.84232
6212115	4.067619
6217547	1.467083
6234083	1.181667
6261148	2.51869
6263904	0
6265446	4.238869

	Average Duration
Non-ISP's	2.484762

APPENDIX A: DAILY REPORTS

The data from each day was collected and summarized in several tables available separately.

SUNDAY, APRIL 13, 1997

MONDAY, APRIL 14, 1997

TUESDAY, APRIL 15, 1997

WEDNESDAY, APRIL 16, 1997

THURSDAY, APRIL 17, 1997

FRIDAY, APRIL 18, 1997

SATURDAY, APRIL 19, 1997

Impacts To The PSTN From Traffic To Internet Service Providers

CC Docket No. 96-263

Usage of the Public Switched Network by Information Service and Internet Access Providers

GTE's INTERNET POSITION

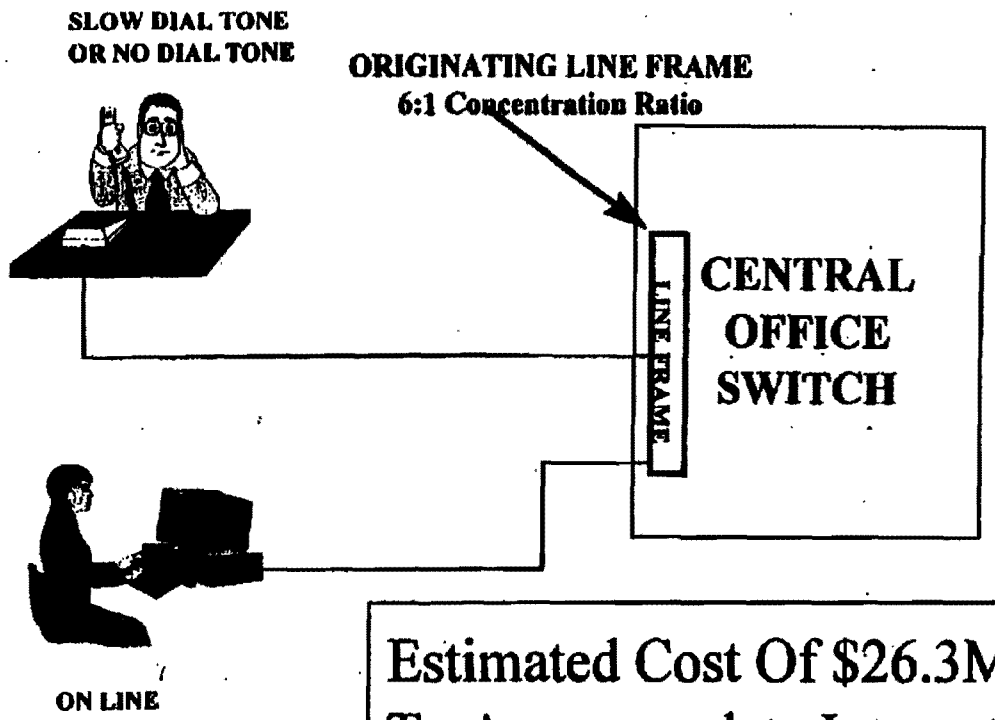
- **GTE Is Committed To The Internet Potential And Future Development**
  - **GTE Has Linked It's Future To The Internet**
  - **GTE Provides Both Wholesale And Retail Internet Services**
- **LECs Are Experiencing Major Congestion Problems That Threaten All End Users Quality Of Service**
- **Current Rules Do Not Allow For Efficient Pricing Nor Adequate Cost Recovery Which Jepordizes Future Investment Decisions**
- **FCC Must Expedite Resolution Of This Issue**

SUMMARY OF GTE's COMMENTS

- **Three Areas Of Congestion Identified**
  - **Originating Line Frames Serving End Users**
  - **Interoffice Trunking From Originating End Offices To The Office Serving Internet Service Providers(ISP)**
  - **Terminating Line Frames Serving ISPs**
- **Significant Traffic To ISPs Is Present In The GTE Network During The Daily Busy Hour**
- **Holding Time On Calls To ISPs Averaged 15-16 Minutes and Is Increasing Versus Voice Holding Time Of 3 To 4 Minutes**

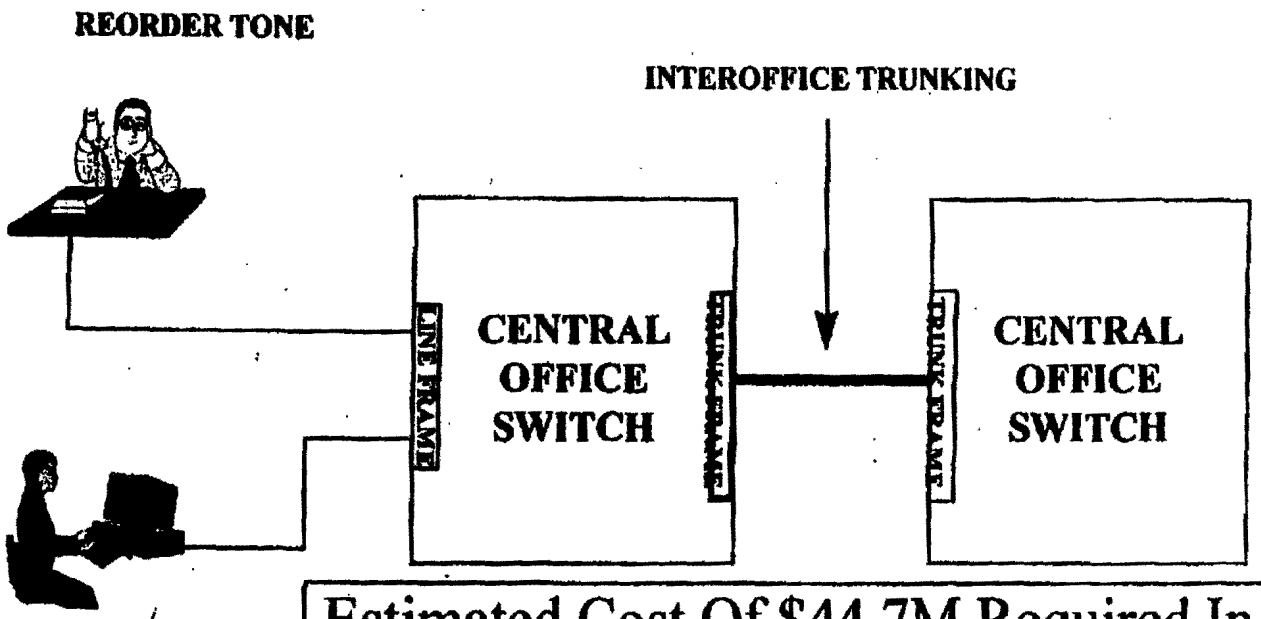
Identified Cost Impact Of $50.3M To $83.6M In 1996. Projected Cost Of $130.3M in 1997 And $181.3M In 1998.

ORIGINATING LINE FRAME CONGESTION



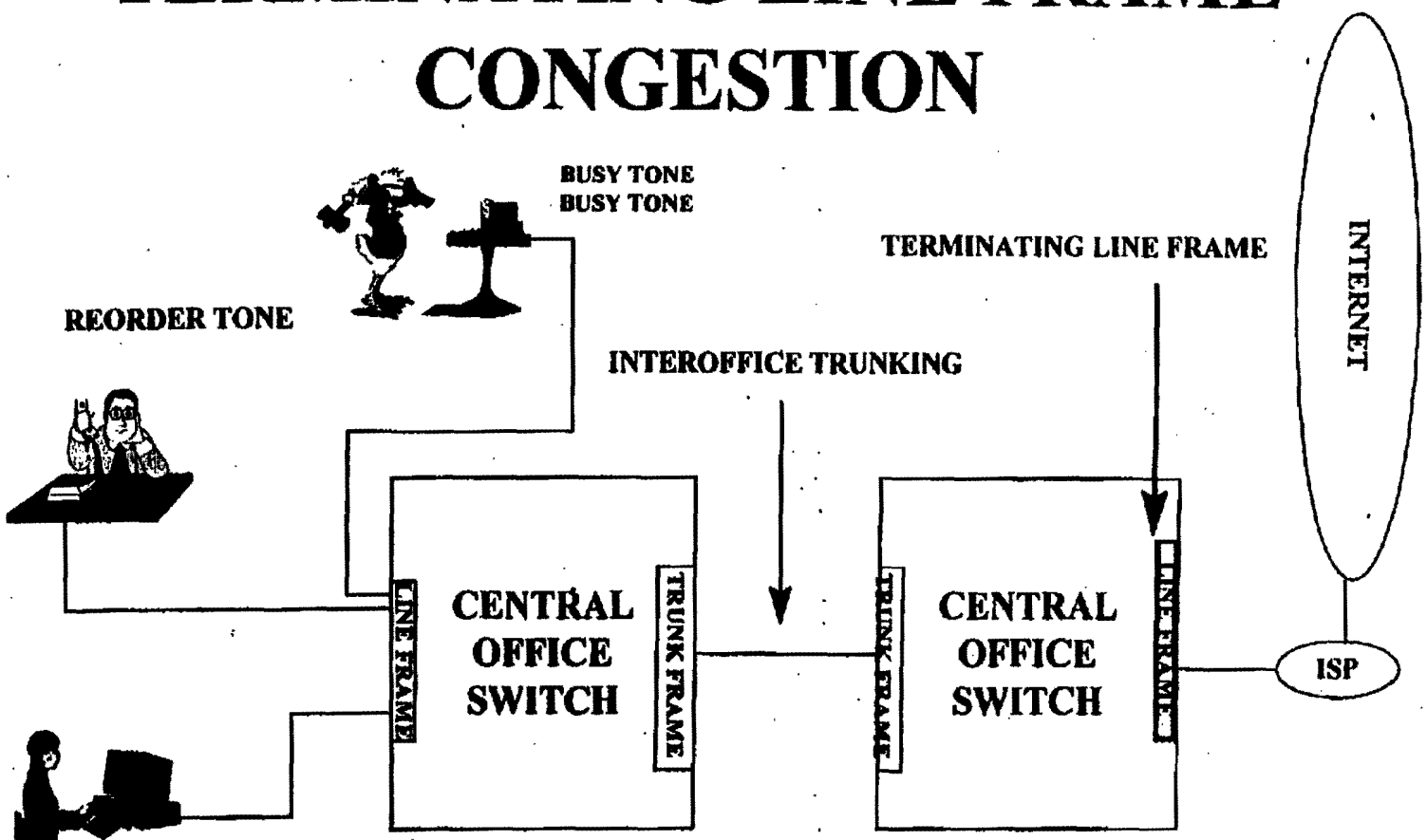
Estimated Cost Of $26.3M Required In 1997
To Accommodate Internet End User Growth

INTEROFFICE TRUNKING CONGESTION



Estimated Cost Of $44.7M Required In 1997
To Accommodate Internet Growth

TERMINATING LINE FRAME CONGESTION

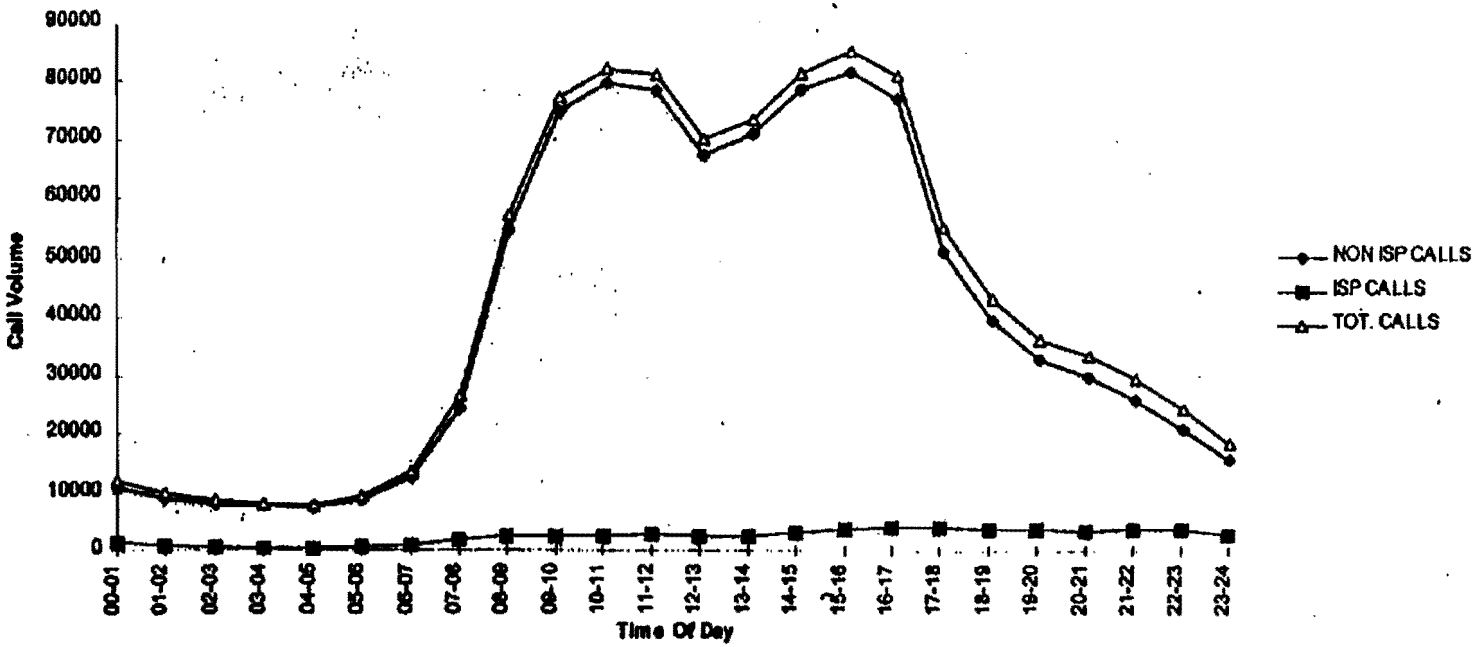


Estimated Cost Of $58.3M Required In 1997
To Accommodate Internet Growth

FLORIDA STUDY

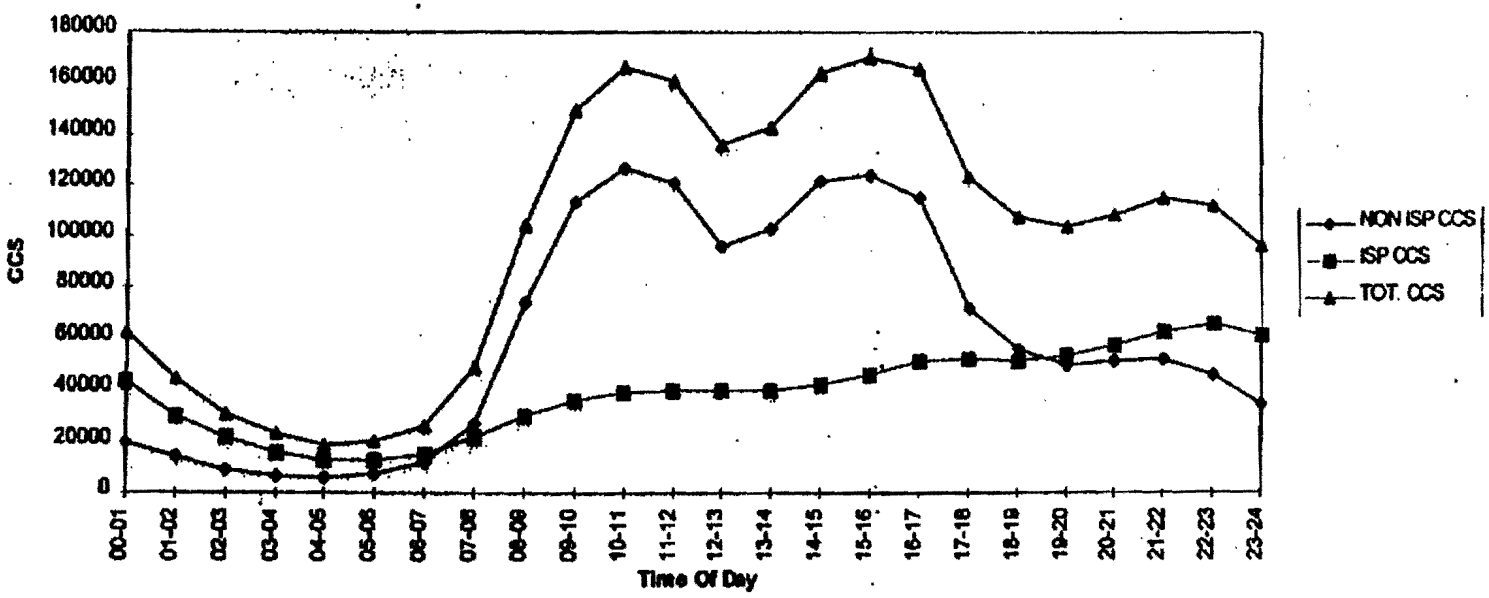
- **Hewlett Packard AccesS7 Link Monitoring System Used To Conduct Study**
  - **Studied Local Calling Network Of 23 Central Offices To 3 Hub Central Offices Serving ISPs**
  - **Study Conducted On The SS7 "A" Links Of The 3 Hub Offices**
  - **Studied Terminating Traffic Only Into The 3 Hub Offices**
  - **Traffic Data On All Terminating Calls To The 3 Offices Collected**
- **Study Conducted Over Seven Day Period (4/13/97 thru 4/19/97)**

COMPLETED CALLS
(5 DAY AVERAGE)



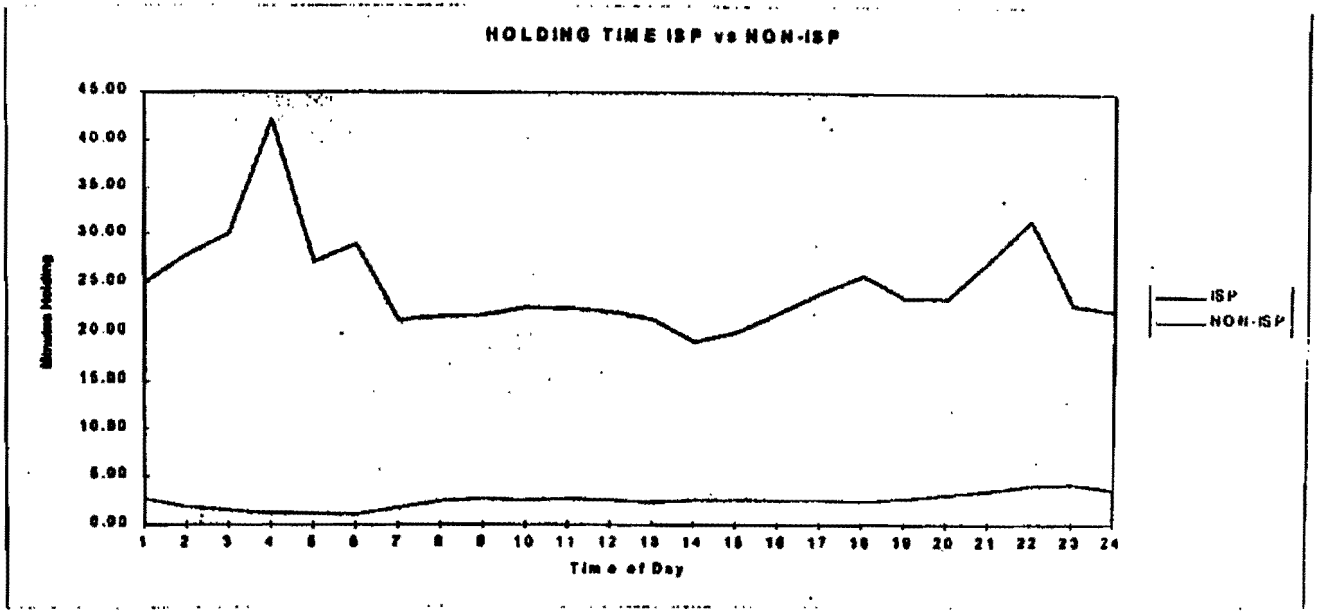
Calls To ISPs Is 6.5% Of The Total Completed Calls And 4.2% Of The Office Busy Hour: But...

UTILIZATION
(5 DAY AVERAGE)



ISP Traffic Is 27% Of The Office Busy Hour Traffic and 38% Of The Total Daily Traffic

HOLDING TIMES
NON-ISP Vs ISP



Average Holding Time Of ISP Call Is 10 Times Longer Than Non-ISP Calls

GTE

STUDY CONCLUSIONS

- **Traffic to ISPs Is Present In The Network All The Time (Peak And Off Peak)**
- **Traffic To ISPs Constitutes Nearly 28% Of the Total Busy Hour Load**
- **Holding Time Of Calls To ISPs Is 10 Times Longer Than Non-ISP Calls On Average**

Network Is Sized Based On Busy Hour Requirements.
Study Is Validated By A Large ISP's Data.

ACTIONS TAKEN TO AVOID QUALITY OF SERVICE PROBLEMS

- **Originating And Terminating Line Frame Congestion**
  - Have Balanced High Usage End Users Over Multiple Frames
  - Have Balanced ISP Lines Over Multiple Line Frames
  - Have Migrated ISPs To Trunk Side Connections
  - Have Added Additional Line Frames to De-Load Existing Frames
- **Interoffice Trunking**
  - Have Added trunks throughout network to maintain quality service

All Of The Above Have Been Done With A Cost Of $195M Thru 1997. Continued Action For 1998 Required Estimated To Be $181.3M

FCC ACTIONS REQUIRED

- **FCC Must Take Jurisdictional Responsibility And Quickly Initiate Formal Rulemaking To Address:**
  - **Traffic To ISPs Is Presumptively Interstate In Nature**
  - **ISPs Being Subsidized By Other Users Of The Network**
  - **LECs Must Be Allowed To Recover Costs From The Cost Causers**
- **Expedite Docket Schedule**
  - **Internet Demand On The PSTNContinues To Grow Steeply With No Cost Recovery**
- **Provide Efficient Pricing Mechanisims To Maximize Efficient Network Utilization Not Incented Under Current Rules**
- **Provide Interim Cost Recovery Until Resolution Of Final Rules**

2/26/97

6

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

Pat/Neal/Dennis

RECEIVED
MAR 24 1997
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of:	)	
	)	
Usage of the Public Switched	)	CC Docket No. 96-263
Network by Information Service	)	
and Internet Access Providers	)	

COMMENTS OF GTE

GTE SERVICE CORPORATION,
on behalf of its affiliated
domestic Strategic Business Units

Ward W. Wueste
Gail L. Polivy
1850 M Street, N.W.
Suite 1200
Washington, DC 20036

R. Michael Senkowski
R. Paul Margie
WILEY, REIN & FIELDING
1776 K St. N.W.
Washington, DC 20006

Its Attorneys

March 24, 1997

96

TABLE OF CONTENTS

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20544

In the Matter of:	)	
	)	
Usage of the Public Switched	)	CC Docket No. 96-263
Network by Information Services	)	
and Internet Access Providers	)	

COMMENTS OF GTE

GTE Service Corporation ("GTE"), on behalf of its affiliated domestic Strategic Business Units ("SBUs"),[1] offers the following comments in the above-captioned proceeding concerning usage of the Public Switched Telephone Network ("PSTN") by information services and Internet access providers.[2] In its *Notice of Inquiry* ("*NOI*"), the Commission seeks the views of interested parties with respect to: (1) local exchange carrier ("LEC") cost recovery; (2) the efficient transport of data traffic; (3) network congestion; (4) barriers to alternative network access arrangements; and (5) distinctions, if any, between different categories of information or enhanced services.[3] As discussed below, GTE submits that the

---

1 GTE is a world leader in the provision of wireline, wireless, Internet and directory services.

2 *Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Transport Rate Structure and Pricing, Usage of the Public Switched Network by Information Service and Internet Access Providers*, Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, 1996 FCC LEXIS 7105, 5 Comm. Reg. (P & F) 604 (rel. Dec. 24, 1996) ("*Access Charge NPRM*").

3 *Id.* ¶¶ 311-318.

network congestion problems in the Local Exchange Carriers' ("LECs'") telephone networks caused by increasing Internet access usage are real, costly to resolve, and likely to continue to grow exponentially. Accordingly, GTE welcomes this inquiry and urges the Commission to develop and implement a rational pricing policy for all interstate services under which all users pay the actual costs of their use of the PSTN, or in the alternative, LECs receive explicit universal service funding in accordance with the Telecommunications Act of 1996 (the "Act")[4] to compensate for any shortfall in cost recovery that may result from limitations on prices as a result of public policy decisions.[5]

I. INTRODUCTION AND SUMMARY

The issues raised in the *NOI* constitute one piece of a major restructuring of the Commission's access rules necessitated by the deregulatory policies embodied in the Act. GTE shares the Commission's goal of promoting the technological evolution of the network and the offering of information services in an economically efficient manner. However, this can only be achieved in a regulatory and a market environment characterized by correct economic signals, incentives for efficiency and, where necessary, explicit support payments. explicit subsidies. Reform of the rate structures applicable to Internet Service Provider ("ISP") use of the PSTN must be accomplished consistent with these critical principles.

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[4] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) (to be codified at 47 U.S.C. §§ 151 *et seq.*).

[5] Comments of GTE, CC Docket No. 96-262, at v.

In these Comments, GTE reaffirms its strong commitment to the use and development of the Internet. As GTE is a LEC, an ISP, and a wholesaler of Internet access service, it understands that the problems associated with ISP use of the PSTN are multi-faceted and of critical importance to many industry participants. Only a resolution of these problems based on fundamental economic principles linking cost causation and cost recovery can properly promote the public interest by encouraging the deployment of the necessary advanced telecommunications infrastructure on which this exciting new medium depends.

GTE has collected data that prove that Internet usage creates a serious problem for the PSTN. Because the PSTN was designed for voice traffic, which exhibits dramatically different calling patterns and usage characteristics than Internet access data traffic, the recent increase in Internet-related calls is creating congestion at critical points in the network. The Internet Access Coalition attempts to deny the existence of any congestion problem through a - funded study entitled "The Effects of Internet Use on the Nation's Telephone Network," authored by Lee Selwyn and Joseph Laszlo (the "Selwyn/Laszlo Study"). Careful examination will show that the Selwyn/Laszlo Study suffers from a number of fatal defects in its engineering, economic, and traffic analyses, and is wholly unable to rebut GTE's well-documented showings.

Moreover, there is every reason to believe that Internet use will continue to rise dramatically, causing an already difficult congestion problem to become worse. In order to maintain network integrity, LECs have had to expend substantial and unplanned sums to increase network capacity, and those expenditures will only increase in the future. Yet, existing regulatory policy precludes appropriate recovery of these costs.

The flat-rated nature of the network services purchased by ISPs and their customers prevent LECs from recovering the actual network costs of these services. As a result, ISPs and their customers have no incentive to act in an economically efficient manner. Instead, the heavy subsidy of their use of the analog telephone service undermines incentives to purchase appropriately priced, more efficient data services. At the same time, the Commission's new competition policies foreclose the LECs from finding other revenue sources from which to recover the huge unplanned infrastructure investments incurred in response to increased Internet usage of the PSTN. ISPs' arguments to preserve this status quo interminably must, therefore, be rejected.

GTE submits that the Commission must adopt a comprehensive and consistent pricing regime for interstate services based on the principle of cost recovery from cost causers with explicit, targeted support payments to providers from the Universal Service Fund where public policy dictates an exception from this cardinal rule. Ubiquitous application of such a pricing policy will send the appropriate economic signals to the industry and ensure the most efficient and productive development of public networks and Internet services.

II. GTE IS COMMITTED TO THE REALIZATION OF THE INTERNET'S POTENTIAL AND TO THE DEVELOPMENT AND IMPLEMENTATION OF NEW TECHNOLOGIES

GTE is not only a LEC, but also a major participant in the Internet community through GTE Intelligent Network Services ("GTE INS"). GTE's LECs are among the country's larger wholesalers of Internet access services and are committed to making access to these and other new technologies available to their customers. This is demonstrated by the growing

sophistication of their service offerings, the level of their investment in new technologies, and the ongoing process of network upgrades to permit all Internet users to make efficient and effective use of GTE's telephone network.

Nearly 2,000,000 GTE telephone customers now use the Internet. GTE LECs also are continuing the aggressive deployment of "data friendly" technologies including Integrated Services Digital Network ("ISDN") and Asymmetrical Digital Subscriber Line ("ADSL") technologies. To date ADSL, while still an experimental technology, has been well received by the trial participants. GTE Laboratories and switch vendors are pursuing various ADSL and fiber-to-the-curb voice/data combination services in addition to ISDN and ADSL technologies. GTE is a leader in the deployment of these technologies and will continue its commitment to the latest technologies for data transmission as a top priority.

While the deployment of ISDN creates network efficiencies at the two ends of a telephony Internet access connection, ISDN does not improve the efficiency of the interoffice transmission segment of a call. Interoffice transmission capacity requirements are the same for standard voice transmission as for ISDN. The CyberPop℠ a service offered by GTE is analogous to ISDN for interoffice capacity utilization, but the additional network efficiency it provides affects the portion of the call path between the wire center and the ISP's network. ADSL and like services are nascent technologies that very likely will provide improved speeds and coincident reductions in required network capacity. But, the question of timing for the deployment of such Digital Subscriber Line ("DSL") technologies in a quantity sufficient to affect the usage of telephony capacity, given increasing subscription to overall Internet access, concerns GTE because it is not likely that near term deployment will sufficiently relieve

telephony network capacity additions. As will be detailed later, the economic attractiveness of subsidized residential dial tone services impedes customer selection of "data friendly" technologies, because the customer benefit must now exceed the cost difference between the services plus the subsidy.

Additionally, GTE INS is a major Internet provider, serving over 100,000 customers.[6] In a recent press release, GTE INS announced a substantial Internet network expansion for 1997. GTE INS will provide additional dial-up numbers and will begin offering Internet access in 120 new markets. These efforts will at least double, and in many cases quadruple, GTE INS customers' ability to access the Internet in the more than 500 markets that it will serve.

GTE is not alone in offering Internet access and other online services. AT&T, MCI, Microsoft and other companies have embarked on major marketing campaigns for their Internet access offerings in the last year. Smaller Internet access providers, such as Erol's in the Washington D.C. area, are proliferating. All the major online services are promoting the Internet and other information products. As a result, Internet traffic volume is exploding.

GTE's own actions demonstrate that it supports bringing the benefits of the Internet and the Information Age to the public. The Commission can best support this goal by creating a sound economic and regulatory environment within which the Internet and related technologies can thrive. Conversely, it should exercise caution when establishing a regulatory regime that could impede technological progress or result in the denial of these services to the public.

---

[6] GTE INS was the first LEC Internet affiliate to reach the 100,000 customer mark.

The FCC also needs to consider the impact of its ISP policies in the larger context of the telecommunications industry as a whole. Absent the establishment of appropriate pricing arrangements that permit recovery of the costs of serving ISPs and their customers, LECs will lack the resources to address the increasing demands placed on their networks. In that event, not only the LECs, but all users of their networks will suffer from a deterioration in performance and the unavailability of sophisticated technological capabilities. This cannot be the result sought by the Commission.[7]

As discussed in greater detail below, GTE and other LECs – whose networks remain critical to realization of the FCC's universal access policies for the Internet – will find it difficult, if not impossible, to maintain their commitments to those policies if the existing uneconomic regulatory regime is maintained. The Commission must find a solution that accommodates cost recovery for the LECs while ensuring that ISPs continue to prosper. This will best ensure that the American public, regardless of whether they reside in metropolitan or rural areas, has affordable access to new, innovative services.[8]

---

[7] *Cf. NOI*, ¶ 311.

[8] GTE is currently involved in negotiations with various state government officials in order to provide rural communities with local dial Internet access service in a manner that is beneficial to individual subscribers and is not detrimental to GTE.

III. INTERNET USAGE CREATES A DEMONSTRABLE PROBLEM FOR THE LECS' NETWORKS

A. The Congestion Caused by Internet Calling, Holding Times, and Traffic Patterns Is an Increasing Problem

An internal GTE study of Internet access usage of the PSTN reveals the same conditions that several other LECs have experienced: heavy Internet traffic is causing a congestion problem for LEC networks.[9] The LECs' networks were designed primarily to accommodate voice traffic patterns. The data traffic associated with access to the Internet has different attributes than that of voice traffic. Because the LEC networks were not designed to handle the volume of data traffic and long holding times generated by Internet usage, LECs are struggling to maintain consistently high quality network service under an ever-increasing burden of Internet-related communications.[10]

To understand the congestion problem, it helps to break down a switched access call to an ISP into three links. (See Figure 1).[11] The first link is the end user's loop to end office switch serving that end user. The loop and switch line port dedicated to the end user are non-traffic sensitive and do not contribute to the congestion. However, congestion can occur in the connection between the line port and the rest of the end office switch (the traffic sensitive portion). The second link is the interoffice trunk (or facility) connecting the end office switch

---

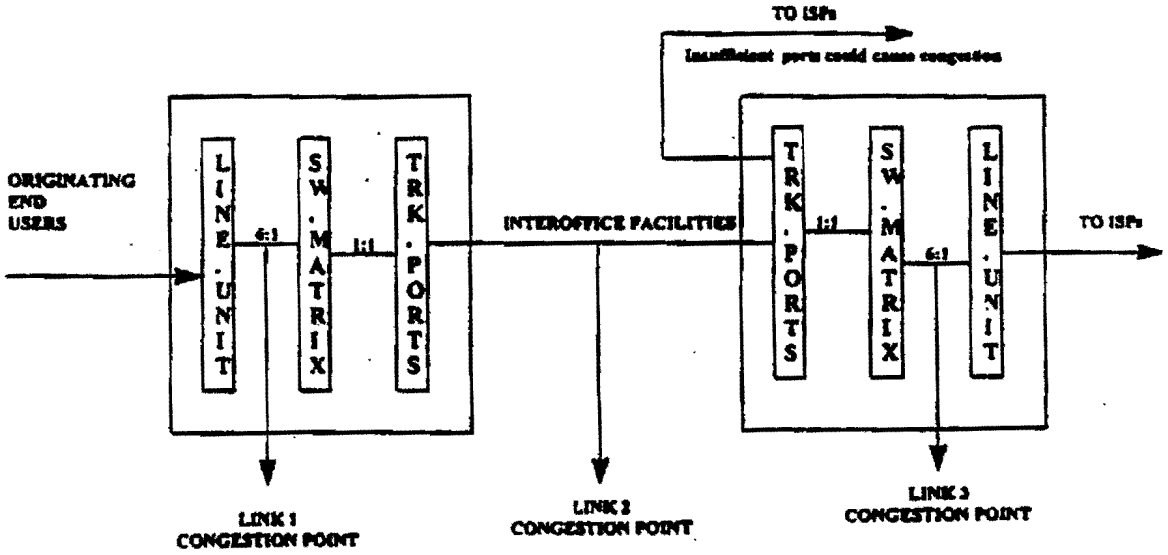
[9] *See NOI*, ¶ 315 (" We encourage commentators to provide data on the characteristics of information service usage and its effects on the network").

[10] Network congestion affects voice services as well as data traffic.

[11] For a more detailed representation of congestion points on an ISP access call, see (Continued...)

and the ISP serving wire center. This link is highly susceptible to congestion created by unprecedented growth in traffic volumes and holding times 4-5 times longer than those for which the network was designed. The third link is from the serving wire center to the ISP premise. Congestion in this link predominantly occurs when the ISP is served via a line-side connection (or line) as opposed to a trunk-side connection. A trunk-side connection has the potential for congestion, but it is much less than that for a line-side connection.

FIGURE 1: NETWORK CONGESTION POINTS



At current traffic levels, GTE has addressed congestion problems in the first link (end user to end office) by rebalancing the assignment of end users to end office line unit equipment so that heavy users of the network are distributed more evenly. Similarly, GTE has addressed

---

(...Continued)
Attachment B.

the congestion in the third link (serving wire center to ISP premise) either by encouraging the use of trunk-side access, to which many ISPs in GTE territory currently subscribe, or by the same rebalancing technique described above. As a result of these efforts, congestion in these links has been largely manageable in GTE's network, but not without substantial cost. However, the network capacities of these links are limited and rebalancing traffic is a costly and at most a temporary solution. It is reasonable to expect that, given the tremendous growth projections for Internet usage, these links will begin to experience congestion problems requiring additional network investment in the not too distant future. [12]

It is the increased demand for interoffice capacity (the second link) due to Internet access that has become the primary cause of network congestion for GTE. GTE's efforts to control congestion on this link overshadow its expenditures for the first and third links combined. The increasing congestion of interoffice facilities stems from the ISPs' desire to secure the widest possible local calling area for their customers. As discussed in more detail below, the longer holding times and heavier traffic volumes associated with Internet calls, and the fact that other techniques such as rebalancing and trunk-side access are not available to alleviate congestion on interoffice facilities, have required the LECs to make substantial investments in end office switches and interoffice spans on these links.

As set out in the attached affidavit, an internal study revealed that in 1996, GTE customers that accessed the Internet generated an additional 954,580 to 1,527,320 total CCS

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[12] *See NOI*, ¶ 313 ("We invite parties to identify means of addressing the congestion concerns raised by incumbent LECs, for example by deploying hardware to route data traffic around incumbent LEC switches . . . .").

on average during the daily office busy hour.[13] The interoffice segment of these Internet access calls generated 763,660 to 1,374,580 total CCS on average during the daily office busy hour.[14]

In addition, GTE conducted six studies of ISP holding times during 1996. The results of these studies are summarized in the following table:

	December 1996 Study Number 1	December 1996 Study Number 2	September 1996 Study	August 1996 Study	April 1996 Study	January 1996 Study
Average Holding Time For ISP Call	16 to 17 Minutes	21 Minutes	14 to 15 Minutes	12 to 15 Minutes	12 to 15 Minutes	12 to 15 Minutes
Average Holding Time For Voice Call	3 to 4 Minutes					
Number of ISPs Studied	25 ISPs	9 ISPs	13 ISPs	16 ISPs	5 ISPs	6 ISPs

[13] "CCS" stands for "centum or hundred call seconds." A single line has a maximum capacity of 36 CCS per hour because there are 3600 seconds in each hour. CCS is an engineering metric which is commonly used to measure actual traffic loads, as well as the maximum capacities on traffic sensitive elements of the network. The numbers are based on the assumption that the time sensitivity of much of the information accessed via Internet services (such as stock quotes, news, weather, and email) suggest that Internet usage will be spread throughout the day and that 5-8 percent of GTE's Internet users will access the Internet during the office busy hour. Typically telephone networks are engineered for a network capacity that would accept 2.5 CCS per line during the office busy hour. The total busy hour load in GTE's network is over 43,000,000 CCS. The number of Internet users coupled with their average holding times results in usage that approximates 3 percent of the total engineered busy hour capacity of the network. *See* Attachment B, Affidavit of Alton Blackmon.

[14] *See NOI*, ¶ 315 ("We encourage commentators to provide data on the characteristics of information service usage and its effects on the network").

As the study results show, the average holding time for an ISP call is 15-16 minutes. The average holding time for a voice call is only 3-4 minutes. This means that on average, ISP related calls are approximately 12 minutes, or up to *400 percent*, longer than voice calls.[15] In turn, these increased network demands translate into a requirement for additional network equipment purchases at substantial cost.[16]

GTE has already begun further studies of these issues. These new studies will take advantage of new technologies and equipment that allow a LEC to monitor traffic in its end office with greater precision than was available previously. With this equipment GTE will measure traffic terminating to particular trunks and lines, as well as measure the overall traffic load destined for the end office serving those customers. GTE hopes that the data gathered by these studies will present a clear picture of Internet access traffic in specific offices compared to all other traffic in those offices.

The following table summarizes data gathered in a three day study of one of GTE's offices.[17] It is offered as an example of the type of data that can now be gathered with this

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[15] The ISP traffic studies conducted by other LECs confirm the legitimacy of this data. *See* "Report of Bell Atlantic on Internet Traffic" (June 28, 1996); "Pacific Bell ESP Impact Study" (July 2, 1996); Letter from NYNEX to James Schlichting, Chief, Competitive Pricing Division, FCC (July 10, 1996); "U.S. West Communications ESP Network Study – Final Results" (Oct. 1, 1996); Amir Atai and James Gordon, "Impacts of Internet Traffic on LEC Networks and Switching Systems" (1996).

[16] *See NOI*, ¶ 315 ("We encourage commentators to provide data on the characteristics of information service usage and its effects on the network").

[17] The study was performed from March 3-5, 1997. Thirty-eight and a half total hours and seven ISPs were studied.

new technology. A quick review of the data indicates that further studies will be able to identify total network usage for specific identified numbers, such as an ISP office, as well as the total network usage for all other numbers served by the end office. This will provide, for the first time, the ability to determine both the volume of traffic accessing the Internet as a percentage of the total traffic volume in the end office, and the holding times and completion rates[18] for each type of call. The results of these new studies will be provided for the record when available.[19]

	Completed Calls	Duration in Minutes	Average Holding Time in Minutes	Busy Calls	Percent Completed Calls	Percent of Total Traffic
ISP Traffic	19,755	322,582	16.33	56,258	25.99%	18.81%
Non-ISP Traffic	394,051	1,392,609	3.53	44,826	89.79%	81.19%
Total Traffic	413,806	1,715,191	4.14	101,084	80.37%	100.00%

[18] While this is only a limited three day study, the completion rates studied indicate that blockage problems on ISP networks are limiting Internet traffic's impact on the PSTN. When ISPs improve their low completion rates by augmenting their infrastructure, the total ISP traffic in the office studied would likely have been even greater that the 19 percent shown in the data.

[19] *See NOI*, ¶ 315 ("We encourage commentators to provide data on the characteristics of information service usage and its effects on the network").

B. The Selwyn/Laszlo Study Does Not Accurately Reflect LEC Engineering Methods and Understates the Impact of the Congestion Problem

A recent study, "The Effect of Internet Use on the Nation's Telephone Network," financed by the Internet Access Coalition (the "Selwyn/Laszlo Study") claims that the Internet does not pose a serious risk to the PSTN. This study's results, however, are marred by incomplete research and faulty assumptions

Congestion causes unanticipated expenditures. The Selwyn/Laszlo Study points to the fact that "very few congestion problems . . . have been identified as affecting the telephone network" as evidence that "[d]ata communications traffic currently poses no significant threat to network integrity."[20] It is true that few congestion problems have occurred, but this is only true because of the dedication of LECs to the provision of quality service and their careful monitoring and quick action to prevent users of the network from encountering blocked calls.

Interoffice trunk groups are routinely studied and planned additions are made as the traffic load increases. Planning for normal growth patterns is built into the LEC's interoffice facility construction budget. However, with the unprecedented growth caused by Internet access traffic, unplanned out-of-cycle expenditures have become necessary to augment the network to maintain a P.01 grade of service to accommodate customer demand.[21] After

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[20] Selwyn/Laszlo Study at vi.

[21] Trunking service objectives for LEC networks generally require trunk groups to be engineered for a blocking probability of .01. This means that one in one hundred calls on that particular trunk group may experience a blockage during the busy hour. *See BOC Notes on the LEC Networks – 1994*, SR-TSV-002275, Issue 2, April 1994, Section 4.4, at 4-24.

making emergency additions to their networks to maintain an acceptable grade of service as a result of the volume of Internet access traffic, the LECs now must make additional expenditures to ensure that there is enough capacity for the normal projected growth of the network.[22]

Traffic within the ISP system affects the PSTN. The Selwyn/Laszlo study also attempts to minimize the congestion attributable to ISPs by asserting that congestion within an ISP's system only affects those users of the PSTN that are attempting to access that particular ISP.[23] This is wrong. First, congestion caused by an insufficient number of ISP lines (or trunks) between the serving wire center and the ISP's premise does affect users of the PSTN that are not attempting to connect with that particular ISP. An insufficient number of lines/trunks to the ISP results in ineffective network attempts. When an end user reaches a busy signal, usually another call attempt is immediately made, and another and another until the connection is made. These ineffective call attempts occupy network resources until the network can determine that there are no lines/trunks available to access the ISP. The network resources tied up by end users attempting to access the ISP are not available for use by other end users attempting to place voice calls and can result in all circuits busy signals to both the voice and Internet callers. Second, if an ISP fails to provide a sufficient backbone network, transmission and reception to and from its Internet servers is less than optimum and end users

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22. In one local calling area in Washington State, trunk additions totaling 55 percent of the existing in-service trunk capacity were required to sustain an acceptable grade of service to our customers.

23 Selwyn/Laszlo Study at 7.

will be unable to access or transfer data at the maximum speed of their modem. This increases holding times on Internet calls. These longer holding times, in turn, use telephone company network resources for the entire period the Internet call is in progress, making those resources unavailable for other users.

Interoffice trunk capacity is limited. The Selwyn/Laszlo Study also bases its conclusions on a misunderstanding of LEC engineering of interoffice trunks. The study appears to assume that there is an infinite quantity of trunks between any two end office switching locations because it states that "any customer that can place a call at the originating switch will have an interoffice trunk available that can establish a route to the desired terminating switch of the call."[24] In fact, the "rare" cases when all such trunks are in use and not available[25] are becoming much less "rare" with the growth of traffic over this network to ISPs. These interoffice trunk groups are generally engineered at a P.01 grade of service based on the typical calling patterns of that particular trunk group. These traffic patterns are changing dramatically as a result of traffic destined for ISPs. With the longer holding times of Internet access calls as compared to voice calls, the normal busy hour is now showing a demand for additional interoffice trunks throughout the LECs' networks.

If Internet and voice traffic peak at the same time of day, then the trunk group must be sized to accommodate the combined traffic for that particular busy hour. If Internet and voice traffic do not peak at the same time of day, then the trunk group must be engineered for either

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[24] Selwyn/Laszlo Study at 8.

[25] These cases are "rare" only because quick network planning and emergency fixes have accommodated past levels of usage. As usage increases this will not be the case.

the Internet or voice busy hour, depending upon which experiences the peak traffic load. In either case, it is incumbent upon the LEC to determine the increased traffic load attributable to Internet traffic in order to accurately reflect the increased cost for interoffice facilities caused by traffic to the ISPs. It is true that if the busy hours are non-coincident and the ISP busy hour traffic is less than the voice busy hour traffic, then no additional trunks are required. However, traffic studies to date indicate that the ISP traffic is causing an increase in the average holding time of trunks during the engineered peak busy hour.[26]

SS7 alone is not a solution. In another attempt to show that congestion within an ISP's system will not affect the larger world of PSTN users, the Selwyn/Laszlo Study assumes that the use of a common channel signaling architecture like Signaling System 7 ("SS7") alerts ISP customers that the ISP system is overcrowded without congesting the PSTN for other users.[27] This assumption is erroneous. In fact, even though the SS7 network notifies the originating end office that the dialed number is busy, the voice circuit between the switching entities is reserved for the period of time required to determine that the dialed number is in fact busy. No other traffic has access to the reserved facilities. Further, calls to the ISP originating within the serving wire center of the ISP (*i.e.*, where the end user is served by the same switch as the ISP) do not use SS7 signaling, therefore a voice path is set up within the switch.

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[26] *See supra*, 11-13.

[27] Selwyn/Laszlo Study at 7, n.13.

The study also fails to address the impact of the ineffective call attempts (calls that are not completed) created by the ISP's customer as a result of busy signals and subsequent redialing to the ISP's number. As noted above, this does, in fact, cause problems in the network. Ineffective attempts generated by automatic dialing techniques in users' computers are commonplace today, thereby creating a large number of reattempts in a very short time frame.

Upgrades produce significant costs. The study also suggests that various engineering solutions are available to ensure that peak usage does not overwhelm the PSTN – but consistently fails to recognize the substantial costs of these upgrades.[28] For example, the study suggests that "[a]dditional traffic capacity can readily be augmented either by installing additional electronics on working ('lit') [fiber optic] strands, or by equipping 'dark' strands with electronic terminating gear."[29] The electronics necessary for such upgrades are a substantial cost for LECs. Moreover, merely augmenting the interoffice facilities with additional electronic gear is not sufficient to reroute traffic from the switch onto the additional facilities. As a result, it is also necessary to add trunk port equipment to the switching equipment. Installing these trunk port facilities is an additional substantial cost.

Congestion occurs in the interoffice trunking portion of the network, not in the LCM. The study asserts that non-blocking architectures can cure increased traffic loads caused by Internet calls. This assertion is premised upon the assumption that the Line Concentration

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28 Selwyn/Laszlo Study at 9, 11.

29 Selwyn/Laszlo Study at 11.

Module (the "LCM") is the "switch component where blocking is most likely to occur."[30] In fact, although accommodation of congestion in any of the three links comprising an Internet-related call is expensive, the most costly link on which to correct congestion is the interoffice trunking, or second link, as described above. Blocking will only occur in the LCM if all 180 paths served are in service at the same time. Thus far, LECs have managed this type of congestion. In contrast, congestion in the interoffice trunking link requires costly equipment upgrades to maintain quality service and avoid congestion.

* * *

Because of these major flaws in the Selwyn/Laszlo Study, the Commission should not give credence to its conclusion that ISP traffic does not raise serious concerns about network integrity. In fact, there is every reason to believe that Internet access, and the network congestion that accompanies it, will become even more of a danger to network integrity in the future. A recent study conducted by Nielsen Media Research and CommerceNET showed that close to one quarter of the US and Canadian population, or about 50.6 million people, now access the Internet.[31] This represents a 100 percent increase in just 18 months.[32] A recent Solomon Brothers study estimates that the number of people who access the Internet will reach 160 million in the next three years.[33] This continued exponential growth will compound

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30 Selwyn/Laszlo Study at 11, n.20.

31 *See* Rajiv Chandrasekaran, *Internet Use Has More Than Doubled in Last 18 Months, Survey Finds*, Wash. Post, Mar. 13, 1997, at D3.

32 *See id.*

33 *See* Kevin Maney, *Web in crisis? Gridlock on info highway*, USA Today, Jan. 20, (Continued...)

congestion on the PSTN. As Matt Cutler, the founder of web.Genesis, which measures performance of the World Wide Web, has stated, "[i]t's a race between users and the infrastructure . . . The question is, who's going to win? The answer is, it's probably going to be a race for a long time."[34]

C. Substantial Investments in LEC Infrastructure Have Been and Will Continue To Be Needed To Avoid a Potentially Crippling Overload of the Network

GTE's data on total CCS generation and the length of Internet access calls show that ISP-access traffic causes congestion. This congestion has had and continues to have a serious impact on GTE's network.[35] As explained above, the LECs' networks were engineered primarily to accommodate voice traffic. Voice traffic customers typically generate between 1.8 - 2.4 CCS per line, and holding times average 3 to 4 minutes. End office equipment (line units) are typically engineered on a 6:1 concentration ratio, which means that there is one path

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(...Continued)
1997, at 1B. *See also* Louise Kehoe, *Home telephones under siege: Internet users are stretching the US phone network to breaking point*, Financial Times, Feb. 1, 1997, at 7 ("'Internet usage is predicted to grow more than 700 per cent by the year 2001,' says Mr. Roy Neel, president and chief executive of the US Telephone Association, an industry trade group. 'Someone has to pay for that usage, the subsequent wear and tear on the network and the new equipment.'").

[34] Kevin Maney, *Web in Crisis? Gridlock on info highway*, USA Today, Jan. 20, 1997, at 1B.

[35] *See NOI*, ¶ 313 ("We invite parties to identify means of addressing the congestion concerns raised by incumbent LECs, for example by deploying hardware to route data traffic around incumbent LEC switches . . . .").

to the switching matrix for each six incoming lines.[36] Each path has an engineered capacity of approximately 28 CCS. Based on these capacities, each path is capable of carrying between 11 and 15 voice calls per hour. A typical line unit in GTE's network can handle approximately 980 lines and, therefore, has the capability of carrying between 1,800 and 2,465 voice calls per hour.

Internet calls create traffic levels that would overload a system engineered on this 6:1 ratio. ISP traffic generates 9 - 9.6 CCS per line on average, and ISP holding times average 15-16 minutes. If only 78 of the lines served by a typical line unit are used to access an ISP, the concentration ratio of the line unit goes up to 6.3:1. This means that only 900 lines can be handled by the same piece of equipment that previously handled 980. As traffic to the Internet continues to increase, this problem will increase. If the network configuration which existed at the time the FCC created the ISP access charge exemption were used to accommodate today's influx of data traffic, the system would be overwhelmed. Without significant and expensive additions to the network architecture, service quality will suffer and service outages, which could include an inability to access critical services like the 911 emergency system, could occur.

In order to avoid service degradation and outages due to Internet access growth, GTE has made a significant investment in new equipment and equipment upgrades above and beyond its annual budgeted investments in the network, and will be required to continue to

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[36] This concentration is very typical of the needs of a normal voice network.

make large expenditures in the foreseeable future.[37] Accumulated Internet traffic through the end of 1996 has required GTE to install between 207 and 331 switch line units, resulting in a total switch upgrade cost of between $34.4 million and $55 million. Additionally, GTE has supplemented its interoffice facilities with between 27,273 and 49,092 trunks, resulting in an upgrade cost of between $15.9 million and $28.6 million. In total, GTE has thus expended between $50.3 million and $83.6 million in direct support of its efforts to avoid a potentially crippling overload of its network as a direct result of increased ISP traffic. This information is summarized in the following table:

	Incremental Traffic (CCS)		Incremental Units		Incremental Costs	
	Low Range	High Range	Low Range	High Range	Low Range	High Range
Links 1 and 3	954,580	1,527,320	207 line units	331 line units	$34.4 million	$55 million
Link 2	763,660	1,374,580	27,273 trunks	49,092 trunks	$15.9 million	$28.6 million
Total					$50.5 million	$84 million

Given current traffic growth rates and trends, GTE estimates that it could expend this much in 1997 alone. Unfortunately, as discussed below, existing regulatory policy does not permit GTE to recoup these costs from the cost causers, thereby creating another implicit subsidy system in contravention of sound economic policy and Section 254 of the Communications Act.

[37] These investments are in addition to GTE's normal, and very substantial, network augmentation efforts.

IV. CURRENT RULES AND POLICIES PREVENT LECS FROM RECOVERING THEIR COSTS

A. Information Service Providers Do Not Currently Pay The Network Costs They Cause

Although ISPs are users of LEC access facilities, they are currently exempt from paying access charges.[38] Because this "exemption" means that ISPs do not have to pay usage based charges for LEC-provided transmission services, it permits ISPs to utilize effectively flat-rated local business services to access the PSTN.[39] In turn, the vast majority of ISPs' largely residential customers also use flat-rated local services to access their Internet offerings. The regulated rates for these services, particularly residential services, are typically set substantially below cost.

Internet access calls cost GTE more than other types of calls because the average duration of an ISP-related call is 15-16 minutes, while the average duration of voice call is only 3-4 minutes. This means that network resources are occupied for four to five times as

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[38] *See Access Charge NPRM* ¶ 284. *See also MTS and WATS Market Structure*, Memorandum Opinion and Order, 97 FCC2d 682, 711-22 (1983); *Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers*, Order, 3 FCC Rcd 2631 (1988). *See also, NOI*, ¶ 315 ("We seek comment on the effects of the current system on network usage, incumbent LEC cost-recovery, and the development of the information services marketplace").

[39] The vast majority of residential telephone service offerings are flat-rated. Although many business lines are priced on a usage sensitive basis for outgoing calls, ISPs typically generate few such communications, instead receiving calls from their customers and paying only the basic flat rate portion of the business line charges.

long, but no additional revenue is generated. This additional "holding time" undeniably results in additional costs for GTE, as the company must invest in large amounts of additional equipment to prevent network degradation.

While opponents of ISP-related reforms argue that increased revenues from outbound usage charges and the additional residence lines needed for widespread Internet usage will compensate for costs LECs incur from ISP-related calls,[40] this is not the case. First, neither ISPs nor their customers typically incur outbound usage charges, unlike many business customers of the PSTN. Their customers subscribe to flat-rated residential service, and ISPs themselves rarely originate calls. Instead they receive incoming calls at their computer servers for interconnection with information resources at that location or with remote hosts. Although trunk side services such as CyberPop℠, DS1 and PRI, used by many ISPs in GTE's territory, ameliorate congestion on the serving wire center to ISP premise link, they do not resolve the cost recovery shortfall.

Second, the sale of additional residence lines used for Internet access does not ameliorate the problem of the ISP exemption, it compounds it. Customers who purchase second lines for Internet access rarely subscribe to usage sensitive offerings for local calling, make few toll calls from the second line and do not order vertical services such as call waiting that would represent additional revenue. Further, given the regulated nature of residential service, the revenue gained from placing a second residential line into use often fails to

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[40] *See* Selwyn/Laszlo Study at 8 n.14.

compensate a LEC for even the incremental cost of providing the basic service to a customer.[41] Even if the plant necessary to provide a second residential line is already in place,[42] it does not mean that the LEC does not have any associated costs for that line. The expense of making this plant operational may be less than constructing a new plant to meet the increased need, but it still exists. Also, once used, that line is unavailable for use as primary service for someone else, therefore loop plant will need to be augmented to meet additional primary service demand. Additionally, activation of the second line causes additions to the end office switches in the form of line cards and associated common equipment.

Finally, when subscribers have a second line dedicated to Internet usage, they have even less incentive to limit their access of Internet services. With only one residential line, Internet use is limited by the need also to use the line for voice services. When the primary line can remain open for incoming and outgoing voice calls while enhanced services are accessed, any restraint on the use of the secondary line disappears and the cost intensive scenario described above is exacerbated.

The ISPs' and their end users' incentives under the "exemption" to continue to utilize local business and residential service, absent concerted action by LECs, could lead to a dangerous overload of the PSTN. And, LECs' and their customers' ability to continue to

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41 *See generally* Comments of GTE, CC Docket Number No. 96-98, (residential service rates typically do not recover even their own directly attributable costs on a forward-looking basis, much less the additional network augmentation costs identified herein) ("GTE Interconnection Comments").

42 In some cases, the drop from the pole to the house may be in place, but the rest of the required loop is not in place.

subsidize the necessary fixes is not unlimited. As long as ISPs and their customers lack any incentive to limit their use of business and residential lines, they will continue to push the network to the outer limit of its capacity. America Online's ("AOL's") battle with congestion earlier this year illustrates this process. AOL's institution of a flat-rated pricing scheme removed the economic incentive to moderate use of their network – much as the ISP exemption removes the economic incentive to efficiently use the PSTN.[43]

The result is well known. AOL's customers dramatically increased their use of the company's and the LECs' infrastructure.[44] AOL customers' average daily use increased from 14 minutes per day in September of 1996 to 32 minutes per day in January of 1997, an increase of over 125 percent. At the same time their average holding time increased from 16 minutes to 26 minutes, an increase of over 60 percent. While AOL users increased their use of the LEC network by over 180 percent per day from September 1996 to January 1997, GTE and other LECs received no additional network revenues to offset the usage sensitive costs of providing access to AOL's network.[45]

AOL attempted to adapt their equipment, but could not match the pace of skyrocketing demand.[46] As the limits of the network were tested, customers experienced major delays in

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[43] *See* David S. Hilzenrath, *At This Rate, They'll Be Swamped; How Fixed Fees on the Net Make for Second Thoughts and Some Sore Users*, Wash. Post, Jan. 24, 1997, at D1.

[44] *See* Craig Stoltz, *When AOL Goes AWOL*, Wash. Post, Feb. 21, 1997, at N66.

[45] See Charles Ealy and Jennifer Files, *AOL Answers Gripes*, Dallas Morning News, at 1D (Jan. 17, 1997).

[46] *See* Denise Pappalardo and Beth Snyder, *AOL blackout: a dark portent?* ASAP, Aug. 12, 1996, at 7.

receiving service and, finally, even total failure of some services.[47] AOL's blocking problems mirror those in the PSTN, however, thus far LECs have done a much better job of managing peak usage stress on the network.[48]

The economics are simple. When demand exceeds supply and the supplier cannot increase supply efficiently or adjust prices so as to control demand, customers will receive deficient service. In this manner, the implicit, unfunded subsidy system created by the ISP "exemption" is undermining achievement of the FCC's avowed goal of creating an advanced, feature-rich, data friendly network infrastructure.

B. New Competition Policies Will Exacerbate the Cost Recovery Shortfall

As explained in detail in GTE's comments on the access charge reform *NPRM*, the "'trilogy' of the 1996 Act implementation proceedings creates grave risks" because "the use of hypothetical, forward-looking incremental costs to price network elements, determine universal service support, and set access rates would preclude GTE from recovering [its]

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[47] *See* Steve Lohr, *Refunds Planned By America Online In Network Jam*, N.Y. Times, Jan. 30, 1997, at A1; David S. Hilzenrath and Jennifer Ordonez, *AOL to Give Refunds to Subscribers; Online Service Settles With 36 States Over Computer Congestion*, Wash. Post, Jan. 30, 1997, at A1; Louise Kehoe, *AOL agrees refunds after lawsuits threat Online service group overloaded its networks*, Financial Times, Jan. 30, 1997, Sec. I at 20.

[48] Had AOL augmented their network prior to implementing flat-rate pricing, LEC usage would have increased even more than it did. The result of this increase would have further taxed the PSTN.

legitimately incurred costs."[49] These "costs" include the subsidies for universal service and other policy objectives that historically have been recovered in the rates for other services, particularly interstate access and intrastate toll offerings. Although many of the burdens and, hence, the costs of subsidized network usage will remain with LECs as carriers of last resort, the services which fund the subsidies will be subject to increasing competitive pressures, and customers of those services will be susceptible to overtures from new entrants utilizing below cost "wholesale" services and network elements obtained from LECs. Thus, even if Section 254 of the Communications Act did not already mandate the removal of such hidden subsidies, it is apparent that they could not be sustained in the new competitive environment.[50] It follows that not only will there be no sources of additional revenue to compensate for Internet access network augmentation costs in the future, but also that recovery of even existing costs will be endangered.

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[49] Comments of GTE, CC Docket Nos. 96-262, 94-1, 91-213, at vi, 3-16 (filed Jan. 29, 1997). Although the United States Court of Appeals for the 8th Circuit has stayed the interconnection pricing rules pending resolution of appeals, *Iowa Utilities Bd. et al. v. FCC*, No. 96-3321 *et al.*, 1996 WL 589204 (8th Cir. Oct. 15, 1996), many States have enacted regulations substantially similar to the FCC's. *See NOI*, ¶ 314 ("We also seek comment on how the matters before us in our Local Competition and Universal Service proceedings affect information service providers and raise issues that we need to address in this proceeding").

[50] *See* 47 U.S.C. § 254.

V. THE ISSUES IDENTIFIED IN THE *NOI* CAN BEST BE ADDRESSED THROUGH A CONSISTENT AND COMPREHENSIVE APPROACH TO NETWORK COST RECOVERY

Incumbent LECs are facing a cost recovery crisis that will only grow in terms of both immediacy and magnitude if current projections regarding future Internet usage are correct. The Commission must, therefore, take action to address this problem not merely to ensure the recovery of LECs' legitimate costs, but also to further the goals set out in the *NOI* regarding encouragement of the development of a technologically advanced, data friendly public network or networks. To this end, the FCC must not allow itself to be deterred by the numerous arguments offered by various members of the ISP community that the Commission preserve the status quo and avoid addressing the problem.

For example, it should be irrelevant at this point whether or not ISPs currently enjoy, or ever did enjoy, an "exemption" from the applicability of the access charge rules.[51] It cannot be disputed that access traffic to ISPs' networks has increased dramatically since the access charge rules were promulgated in the mid-1980s, and the ISPs providing such access are no longer only fledgling businesses, but major players such as AT&T and MCI. The different service applications offered by ISPs have similarly multiplied and some, such as Internet telephony, are directly substitutable for voice services subject to access charges. In addition, as shown above, ISPs are not currently compensating LECs for the full costs of

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51 *See, e.g.*, Comments of the Internet Access Coalition, CC Docket Nos. 96-262, 94-1, 91-213, 96-203, at 10-12 (filed Jan. 29, 1997) ("Coalition Comments").

delivering that traffic, nor are the costs recovered elsewhere in LECs' rate structures.[52] It follows that the debate over appropriate pricing mechanisms for ISPs' use of the network should be conducted on the basis of such existing facts, not constrained by past rationales that hold little relevance for the present.[53]

For similar reasons, claims of unlawful discrimination if ISPs are treated differently than other business customers of network services lack merit.[54] The record in this proceeding conclusively demonstrates that ISPs have different usage characteristics than the vast majority of other business users and that those differences impose substantial additional costs on the network. In its *First Interconnection Order*, the Commission acknowledged that it is not discriminatory to establish different rates for customers that exhibit disparate cost characteristics.[55] ISPs have no right to demand such broad averaging of business user costs as currently exists, particularly where the result is a material distortion in the economic signals provided to the marketplace.

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[52] Even if some additional revenues are available from other sources at present, it would be contrary to Section 254 of the Communications Act to seek to perpetrate such an implicit subsidy and these subsidies will, in any event, be impossible to maintain in a competitive marketplace.

[53] Thus, ISPs' claims for transitional or other relief from an immediate cut-over to a new pricing methodology if that is to occur should likewise be addressed in the current environment.

[54] *See* Coalition Comments at 20-22

[55] *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499, 15928, 16140 (1996) ("*First Interconnection Order*"). Voice and ISP-related calls have substantially different cost characteristics. *See supra* 8-13.

There are also no legitimate grounds to deny LECs' recovery of their actual costs simply because alternative network technologies, such as packet switching, may provide a more efficient alternative in the future to meet the data transport needs of ISPs. The fact remains that ISPs and their customers are currently using circuit switched network facilities for a substantial portion of their traffic and should, therefore, pay the costs of what they use. This is especially true because it is the FCC's current policies regarding ISP access arrangements – particularly ISPs' and their customers' ability to utilize flat-rated services that provide additional transmission capacity on an effectively "free" basis – which discourage smaller ISPs from moving to packet offerings. It is this requirement which underlies the most extensive regulatory barrier to ISPs' use of efficient data transport offerings.[56]

Finally, the mixed jurisdictional nature of ISP's traffic does not preclude the establishment of a rational cost recovery regime for ISP network usage.[57] Regulators and carriers deal with mixed use facilities and services every day in the context of the jurisdictional assignment of special access lines and percentage use allocation factors for network plant and traffic billing. Given that the preponderance of Internet access usage is interstate, it is incumbent upon the FCC to take the lead in promulgating a sensible rate structure for recovery of Internet access costs that sends the correct economic signals and that can be implemented, as appropriate, in both the federal and state jurisdictions consistent with the respective

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[56] *Cf., NOI*, ¶ 313.

[57] *See* Coalition Comments at 20-22. *See also NOI*, ¶ 315 ("[W]e seek comment on jurisdictional . . . questions, given the difficulty of applying jurisdictional divisions or time-sensitive rates to packet-switched networks such as the Internet.").

authority of each. Certainly, the current regime, which precludes the states from responding to real economic signals and arbitrarily assigns cost recovery for these mixed services to the intrastate jurisdiction, cannot be squared with sound economic policy or regulatory comity.

Perhaps most fundamentally, the Commission must recognize that the types of implicit subsidies that characterize LECs' existing rate structures and that ISPs urge the agency to maintain are simply not sustainable in the competitive marketplace envisioned by the Telecommunications Act.[58] As GTE repeatedly has emphasized in its interconnection, universal service, and access charge reform filings, a comprehensive solution is required.[59] A piecemeal approach to reform, such as the Commission has been attempting with the continued deferral of actual cost recovery issues to yet another future proceeding while implicit subsidy burdens such as the ISP "exemption" are perpetuated, does not reflect rational decisionmaking and cannot satisfy either the goals of the Act or other legal and constitutional constraints.[60]

Indeed, the continuation of the ISP "exemption" is already creating a distortive ripple effect in other markets. Many competitive LECs are extensively marketing their offerings to Internet access providers and other ISPs for the sole purpose of capturing those entities'

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[58] *See NOI*, ¶ 313 ("We seek comment on how our rules can most effectively create incentives for the deployment of services and facilities to allow more efficient transport of data traffic to and from end users").

[59] GTE previously stated that it "has consistently taken the position that all users of the network, including ISPs, should be responsible for paying their own way in a system based on efficient pricing and cost recovery principals. Access reform should provide ILECs with the ability to assess access charges equitably on all access service users, including ISPs." Comments of GTE, CC Docket Nos. 96-282, 94-1, 91-213, 18, n.31 (filed Jan. 29, 1997).

[60] *See id.* at v-vi.

overwhelmingly terminating traffic in order to attempt to obtain transport and termination charges from LECs under reciprocal local compensation arrangements. If CLECs were to be successful in this attempt, LECs would retain responsibility for the vast majority of the network cost increases caused by Internet access usage, incur a new cost burden in terminating payments to the CLECs, and lose all revenues from ISPs themselves. CLECs should not be permitted to game the system in this manner or otherwise allowed to take advantage of such arbitrage possibilities that lack any reasonable technological or economic basis. Rather, costs should be recovered from those who cause them to be incurred (and thus should follow the revenue stream when a customer changes providers), and explicit subsidy payments should be made available to those providers who continue to serve end users that public policy mandates have expressly deemed entitled to below cost services.

VI. CONCLUSION

Accordingly, GTE urges the Commission to move quickly in this and the related interconnection, universal service, and access charge reform proceedings to promulgate a consistent and comprehensive pricing policy to govern all jurisdictionally interstate services. This policy should permit LECs to recover their actual costs from the cost causers, provide LECs with explicit and adequate funding from competitively neutral sources where public policy dictates that end users not be required to pay their full costs of network usage, and ensure that all users, service applications, and technologies are subject to correct, cost-based economic signals so that rational investment choices can be made that will best promote the development of an efficient, economical, and technologically advanced network.

Respectfully submitted,

GTE SERVICE CORPORATION,
on behalf of its affiliated
domestic Strategic Business Units

Ward W. Wueste
Gail L. Polivy
1850 M Street, N.W.
Suite 1200
Washington, DC 20036

R. Michael Senkowski
R. Paul Margie
WILEY, REIN & FIELDING
1776 K St. N.W.
Washington, DC 20006

March 24, 1997

ATTACHMENT A

Affidavit of Alton Blackmon

Affidavit of Alton Blackmon

1. My name is Alton L. Blackmon. I am Group Manager-Infrastructure Dimensioning for GTE Telephone Operations. My business address is 545 E. John Carpenter Frwy, Irving, Texas. My principal duties and responsibilities include the direction and supervision of network traffic standards associated with voice and data communications.

2. In conjunction with these responsibilities, I have directed the preparation of the attached Internet Impact Report (3/97).

3. Internet Impact Report Attachment A .

The purpose of this report is to identify the portion of network hardware costs that GTE incurred to accommodate 1996 internet traffic[1] demand. Since historically there was no practical way to precisely identify the internet traffic from voice traffic on our network (internet traffic and voice traffic use the same common facilities) we had to make certain assumptions based on historical data (described below) that will result in reasonable estimates of the traffic attributable to Internet usage. Once the percent of internet traffic during the office busy hour is known, the hardware costs associated with this traffic can be determined.

A) Known study data:

- For year end 1996, GTE had 17,356,000 Access lines (counted using methodology for ARMIS 43.05 report).

- GTE has determined, based on quarterly internet audits, that the average holding time for an Internet call is 10 CCS.

- Recent market surveys[2] indicate that 11% percent of GTE telephone customers have access to the Internet. Thus, it is reasonable to assume that approximately 1,909,160 GTE customers have access to the Internet (0.11 x 17,356,000)

- Traffic studies of existing interoffice message trunks have determined that, on average these trunks have a capacity of 28 CCS.

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[1] When I refer to Internet traffic, I am referring to the traffic on the LEC's network that is originated by the LEC's subscriber and typically is routed from the originating end office over LEC interoffice facilities to the terminating wire center that serves the Internet Service Provider ("ISP").

[2] Q.E.D. Alert No. 123 (2/97) market survey.

- Analysis of switch line modules[3] with 6:1 concentration (the average concentration ratio for GTE's network) on average cost approximately $166,200.

- On average the cost of interoffice T-1 (24 channels) facility is $14,000.

- Based on a review of our network, the average switch Line Unit capacity is 4602 CCS.

B) Assumptions necessary to complete the analysis.

- It is reasonable to assume that between 5% to 8% of GTE customers that subscribe to internet access will access the internet during their office busy hour. A rather wide range of estimates was chosen simply to establish the magnitude of the impact knowing that precise data is not available. But, given the public's interest in accessing the Internet for timely news, weather and stock updates, the actual percentage is likely to be in this range. Thus, across our network, 95,458 to 152,732 of our customers (i.e., 5 - 8% of our customers that have Internet access) are using the Internet during the peak usage periods of our network.

- Due to our network design and the fact that Internet Service Providers desire to have the largest local calling areas available, we believe that 80% to 90% of our customers access internet by terminating calls to wire centers other than their own end office[4]. Thus, in order to complete these calls, our interoffice facilities are used. This results in anywhere from 76,366 to 137,458 of our customers using interoffice facilities during their office busy hour. (80% of 95,458 is 76,366 customers. 90% of 152,732 is 137,458 customers.)

---

[3] Switch line units are configured to handle various traffic demand loads through the use of concentration ratios. Line modules can have concentration ratios varying from 4:1 to 8:1. A 4:1 concentrated line module will handle fewer lines than a 6:1 or 8:1 unit. Correspondingly, the average daily busy hour per line capacity for lines on a 4:1 unit will be higher than for a switch line unit using a 6:1 or 8:1 concentration ratio. In general the lower the concentration of the unit, the higher its cost. GTE's network has line modules of each concentration. The 6:1 concentration ratio was selected as a representative unit for this study analysis.

[4] Internal analysis of office configurations (interoffice calling capabilities) and the local offices that ISPs are using as their serving wire center indicate that on the average ISPs can receive traffic from 9 to 10 surrounding offices via the

Conclusions:

1) GTE customers that access the internet on average place 954,580 to 1,527,320 CCS of daily office busy hour traffic on our network. This is simply the product of the number of customers accessing the Internet during the busy hour and the average Internet holding time of 10 CCS. (10 CCS x 95,458 customer = 954,580 CCS. 10 CCS x 152,732 customers = 1,527,320 CCS.)

2) The approximately one to one and one half million CCS of traffic during the office busy hour requires GTE to install addition switch line units. The total number of line units required to accommodate this traffic is derived by dividing the Internet office busy hour CCS demand by the GTE network average line module CCS capability. 954,580 CCS divided by 4602 average CCS per line module = 207 line modules required. 1,527,320 CCS divided by 4602 CCS per average line module = 331 line modules required. Thus, 207 to 331 line modules are being used to accommodate the office busy hour internet traffic.

3) GTE customers that access the internet on average generate 763,660 CCS to 1,374,580 CCS of busy hour interoffice traffic. This is simply the number of customers that are utilizing the interoffice facilities during the office busy hour times on average internet holding time of 10 CCS. (10 CCS x 76,366 customers = 763,660 CCS and 10 CCS x 137,458 customers = 1,374,580 CCS.)

4) The number of interoffice facilities required to accommodate internet busy hour requirements is derived by dividing the interoffice usage by 28 CCS, the usage on the average trunk in GTE's network.(763,660 CCS divided by 28 CCS per trunk = 27,273 trunks required and 1,374,580 CCS divided by 28 CCS per trunk = 49,092 trunks required), At 24 trunks per T1 span the quantity of T1 spans required is 27,273 to 49, 092 (27,273 divided by 24 = 1,136 T1 spans 49,092 divided by 24 = 2,045 T1 spans).

5) Total cost per element is determined by multiplying quantity of hardware element required times average unit cost.

For Line Modules: 207 units X $166,200 per unit = $34.4 Million
331 units X $166,200 per unit = $55.0 Million

For Spans: 1,136 spans X $14,000 per span = $15.9 Million
2,045 spans X $14,000 per span = $28.6 Million

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local calling plan. Thus, the 80 to 90% assumption is a reasonable estimate of Internet access calls requiring our interoffice facilities.

6) Therefore, it is reasonable to assume that GTE was required to place additional hardware to accommodate internet access traffic during the office busy hour ranging from $50.3 Million to $83.6 Million.

The affiant says nothing further.

Alton L. Blackmon

Subscribed and sworn to
before me on this 21st day
of March, 1997.

Michel Slabosh

Dallas County
Term Expires 6-8-98

ATTACHMENT A

GTE Telops - Internet Impact Report 3/97

Purpose: Identify network hardware costs that GTE Telops has incurred to accommodate internet traffic demand, as of Dec 1996.

1) GTE Customer data:
   o GTE had 17,356,000 access lines (1996 - ARMIS 43-05 report)

2) Market Study data:
   o 11% of GTE customers access internet = 1,909,160 (QST survey 2/1997)
   20%

3) Internet Study data:
   o Average internet user busy hour CCS = 10 CCS (GTE Telops internal survey)

4) Assumptions:
   o 5 to 8% of GTE customers that subscribe to internet services access the internet during their office daily busy hour = 95,458 to 152,732
   o 80 to 90% of these customers require interofffice facilities = 76,366 to 137,458 require interoffice facilities daily.
   o Average message trunk capacity of 28 CCS
   o Average Swt Line Unit Capacity = 4602 CCS
   o Average 6:1 Line unit Cost = $166,200
   o Average 24 channel span unit cost = $14,000
   o Voice and Internet demands are independent network demand events. While this may not be true in the future it is considered true for the past.

Conclusions:

1) In total, for 1996 activity,
   o GTE customers that access the internet on average generate 954,580 to 1,527,320 total CCS during the office daily busy hour.
   o GTE customers that access the internet on average generates 763,660 to 1,374,580 total CCS of daily busy hour interoffice facility requirements.

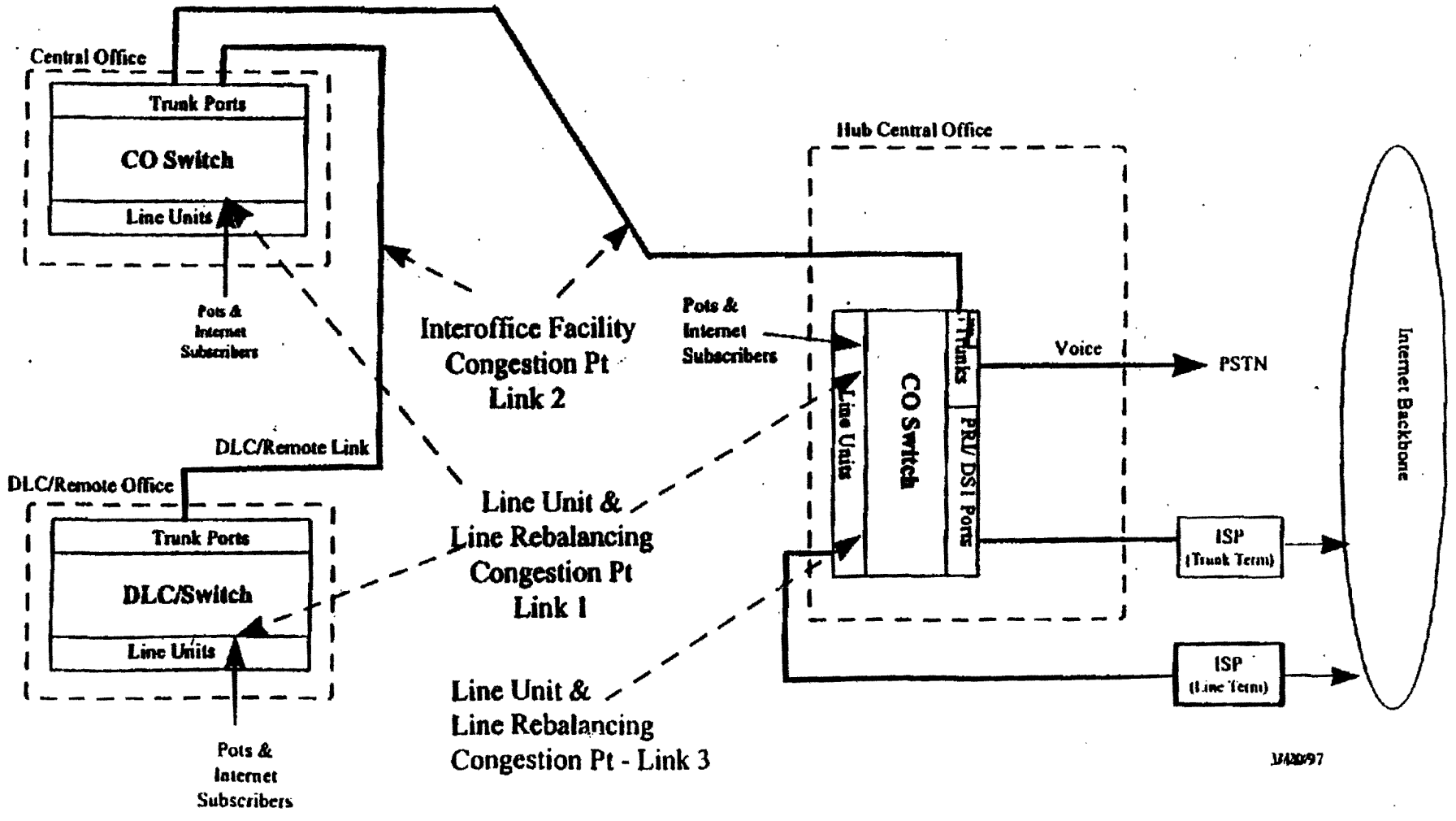
2) Total equipment/facility internet daily busy hour requirements:
   o Switch Line Units/Modules
     207 to 331 switch line units/modules
   o Interoffice Spans
     27,273 to 49,092 links or 1,136 to 2,045 (24 channel) spans

3) Total Cost to accommodate internet daily busy hour demand:
   A) Swt Line Units @ 166,200 per unit = $34.4M to $55.0M
   B) Spans cost @ $14,000 per span = $15.9M to $28.6M

ATTACHMENT B

Congestion Points in the Network

Congestion Points in the Network



4/23/97

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

Pat/Dennis/K. Jones/D. Gilp/Neal/C. Little/S. Pittele

In the Matter of:	)	
	)	
Usage of the Public Switched Network by Information Service and Internet Access Providers	)	CC Docket No. 96-263
	)	
	)	

REPLY COMMENTS OF GTE

GTE SERVICE CORPORATION,
on behalf of its affiliated companies

Ward W. Wueste
Gail L. Polivy
1850 M Street, N.W.
Suite 1200
Washington, DC 20036

R. Michael Senkowski
Richard T. Pfohl
WILEY, REIN & FIELDING
1776 K Street, N.W.
Washington, DC 20006

Its Attorneys

April 23, 1997

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20544

In the Matter of:	)	
	)	
Usage of the Public Switched	)	CC Docket No. 96-263
Network by Information Services	)	
and Internet Access Providers	)	

REPLY COMMENTS OF GTE

GTE Service Corporation ("GTE"), on behalf of its affiliated companies,[1] hereby submits its reply to comments received in response to the above-captioned Notice of Inquiry ("NOI").[2]

I. INTRODUCTION AND SUMMARY

Broad record support exists for the positions articulated in GTE's Comments. As the empirical data of GTE and other LEC commenters make clear, Internet access usage is creating the need for unscheduled network upgrades that result in unrecovered costs for ILECs. Additional data recently compiled by GTE confirms GTE's earlier showing that Internet access-related traffic presents an increasing threat of congestion for ILECs, necessitating dedication of

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[1] GTE is a world leader in the provision of wireline, wireless, Internet and directory services.

[2] *Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing; Usage of the Public Switched Network by Information Service and Internet Access Providers,* FCC 96-488 (Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry), 1996 FCC LEXIS 7105, 5 Comm. Reg. (P & F) 604 (Dec. 24, 1996).

increasing amounts of network capacity. Specifically, a study just completed by GTE indicates that ISP-related traffic constitutes a substantial portion of all terminating interoffice Public Switched Telephone Network ("PSTN") traffic, including a large percentage of such traffic during busy hours. Recovery of costs for this Internet use is both required by the Telecommunications Act and necessary from a public policy standpoint in order to establish proper market-based price signals that will spur deployment of data-friendly networks that the FCC and all commenters agree are desirable.

In contrast, no persuasive arguments have been presented for continuing to require LECs to effectively subsidize Internet access usage. Both the Telecommunications Act and longstanding Commission policy favor recovery of costs from the cost causer, with any necessary subsidies made specific and predictable, not implicit and uncontrollable as here. Moreover, as numerous commenters point out, the current system, which renders much Internet access usage essentially free, is the largest existing regulatory impediment to deployment and use of data-friendly services.

Arguments that the Commission should require sub-loop unbundling for the use of ISPs are similarly misplaced. The severe technical and other constraints on such unbundling render it impracticable to offer, if at all, on anything but an individual case basis. Moreover, even if available, sub-loop unbundling would likely not be an economically viable alternative for ISPs because of the substantial attendant costs. Further, the risk to network reliability from such unbundling would be even greater given the involvement of ISPs, which are not subject to regulatory oversight.

GTE also agrees with AT&T that Internet access usage should be presumptively classified as jurisdictionally interstate. Such a presumption comports with the overwhelmingly interstate character of Internet traffic, but would be rebuttable in order to protect legitimate state interests. Most importantly, the interstate classification of Internet traffic will prevent CLECs from "gaming the system" by signing up ISP customers in order to inflate their receipts of mutual compensation revenues.

Finally, the record establishes that ILECs are currently being denied full recovery of the network costs attributable to increased Internet usage. Neither business line rates nor second line revenues are sufficient to recover these costs. Moreover, application of the FCC's TELRIC standard to Internet access pricing would exacerbate current shortfalls by guaranteeing a systematic under-recovery of costs. Noncompensatory pricing of existing analog services is a principal impediment to the deployment of new data-friendly technologies.

II. THE RECORD DEMONSTRATES THAT A DRAMATIC INCREASE IN INTERNET TRAFFIC HAS REQUIRED EXTRAORDINARY EFFORTS TO PREVENT DETERIORATION OF NETWORK PERFORMANCE

Virtually the only record support relied upon by ISPs for their contention that increases in Internet access usage do not pose a serious risk to the PSTN is the Selwyn/Laszlo Study,[3] which was financed by and appended to the Comments of the Internet Access Coalition. As GTE pointed out in its Comments, that study suffers from numerous fatal shortcomings and misconceptions that render its conclusions fundamentally flawed.[4] Contrary to the suggestions of

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[3] Lee L. Selwyn and Joseph W. Laszlo, "The Effect of Internet Use on the Nation's Telephone Network," Comments of the Internet Access Coalition, Append. C.

[4] *See* Comments of GTE at 14-20.

Selwyn, *et al.*, traffic congestion created by burgeoning levels of Internet access traffic now poses an unprecedented threat to network performance. The dearth of examples of Internet-related network breakdowns to date does not undermine this fact. Rather, serious service disruptions have been avoided only due to ILECs' efforts to implement massive, uncompensated emergency capital upgrades as stopgaps against network overload.

Network congestion caused by increasing Internet use cannot be "simpl[y]" or "easily" addressed through techniques such as load balancing, switch deloading, and use of trunk-side terminations, as certain commenters claim.[5] As GTE explained in detail in its Comments, such contentions misunderstand telephone network architecture and ignore the significant costs of the technology required to implement network capacity augmentation techniques.[6] Both additional data collected by GTE and the experiences of other ILECs confirm GTE's earlier showings in this regard.

A. Additional Data Collected By GTE Demonstrate That Traffic Levels Have Increased Dramatically Due To A Substantial Rise In Usage Levels On Internet-Related Lines

A study commissioned by GTE confirms the conclusions of preliminary data set forth in GTE's Comments: Internet-related traffic constitutes an increasing proportion of PSTN traffic, and such traffic is contributing to PSTN congestion problems during both busy and off-peak hours. The study, performed using a commercially available link monitoring system, measured the traffic on the SS7 ("Signaling System 7") links into the three central offices in the Tampa,

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[5] *See, e.g.*, Comments of Internet Access Coalition at 10-14.

[6] Comments of GTE at 14-22.

Florida metropolitan region during one full week in April, 1997.[7] All traffic routed to these three central offices was measured to determine the traffic load destined for the ISPs served by these offices as well as non-ISP traffic load.[8] The study measured the load of calls measured in CCS,[9] a product of the number and duration of calls.[10]

The study illustrates the contribution of Internet access related traffic to terminating interoffice PSTN traffic congestion in the metropolitan area studied, both in peak and off-peak hours. As the following table demonstrates, during the five consecutive weekdays studied, ISP traffic constituted fully ***40.75%*** of total terminating interoffice PSTN traffic. (*See* Table 1).[11]

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[7] The study measured the traffic destined for these central offices 24 hours a day for the seven day period from April 13, 1997 through April 19, 1997.

[8] The study did not measure intra-office traffic, *i.e.*, traffic originating and terminating within the office studied.

[9] As explained in GTE's Comments, CCS, or "centum or hundred call seconds," measures actual traffic loads, by measuring the volume *and* duration of calls. Comments of GTE at 11 n.13. This measure is most important, because it determines the load on the network.

[10] The study data shows the hour in the day that calls were connected and the average holding time for all calls that were connected during that hour regardless of the actual release time. It also shows the CCS load to each of the ISP numbers during the hour as well as the CCS load to all other numbers served by the studied offices. Traffic measured includes all of the traffic originated from all of the offices in the surrounding local calling area, traffic terminating in these offices from offices that generate 1+7D Intra-LATA toll calls into these offices, and traffic terminating in these offices from points outside the LATA.

[11] Table 1 replicates the Table presented on the basis of preliminary data in GTE's Comments, and validates the conclusions drawn from that table. *See* Comments of GTE at 13.

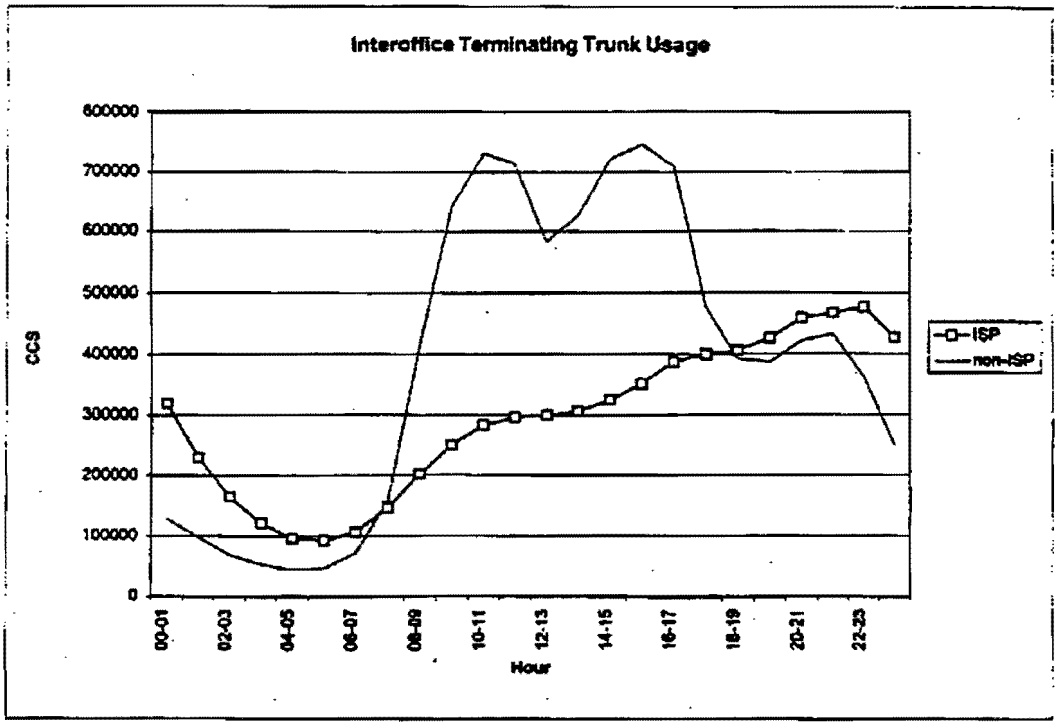
Table 1
March 1997 Study
Five Weekdays Studied

	Completed Calls	Duration in Minutes	Average Holding Time in Minutes	Non-Completed Calls	Percent Completed Calls	Percent of Total Traffic Minutes
ISP Traffic	347,280	8,629,908	24.85	155,988	69.00%	40.75%
Non-ISP Traffic	4,958,065	12,543,904	2.53	1,881,457	72.50%	59.25%
Total Traffic	5,305,345	21,173,812	3.99	2,037,445	72.25%	100%

Furthermore, contrary to the unsupported contentions of a number of ISP commenters,[12] Internet access-related traffic was significant not only during off-peak hours, but during PSTN busy hours as well. During the peak busy hour, ISP traffic constituted nearly ***33%*** of total terminating interoffice PSTN traffic. (*See* Chart 1).

[12] *See, e.g.,* Comments of WorldCom at 19-20; Comments of General Services Administration ("GSA") at 13-15; Comments of The Association of Online Professionals at 4; Comments of Internet Access Coalition at 8-9.

Chart 1



As Chart 1 demonstrates, ISP traffic load increases steadily during the day from 5:00 A.M. until 11:00 P.M (with a slight flattening at noon). ISP traffic load during the busy hour (3:00 - 4:00 P.M.) is equivalent to approximately 73% of ISP traffic load during the ISP busy hour (10:00 - 11:00 P.M.).

Furthermore, the study data demonstrates that ISP contentions regarding total number/volume of calls during the busy hour are, in and of themselves, incorrect. As Chart 2 illustrates, average holding time during busy hours on calls to ISPs is nearly ***nine times*** longer than average holding time on non-ISP traffic in this metropolitan network. (*See* Chart 2).[13]

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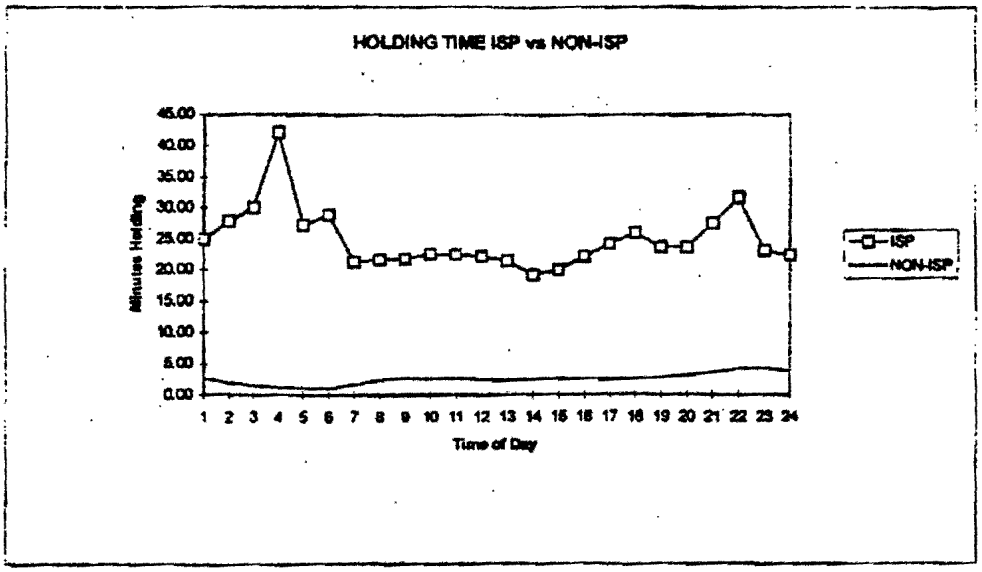
13 *See also* Table 1; Affidavit of H. Lee Jones, attached as Append. A, at 2.

Chart 2



Holding times are relevant, because it is both the number and the duration of calls that determine call load, network congestion, and switch and trunk line capacity needed.[14] For example, GTE's data demonstrates that ISP calls during the busy hour constituted nearly 33% of total terminating interoffice traffic load, despite constituting only 4.35 percent of the total number of completed terminating interoffice calls during that hour. Therefore, it is clear that the long average holding time of ISP traffic is largely responsible for causing the need for additional facilities in the network. Thus, ISP data that relates solely the volume of calls and fails to

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[14] *See* Affidavit of H. Lee Jones, attached as Append. 1, at 3; *see also* Comments of WorldCom at 19 (admitting that "the ILECs' local switches typically are engineered based on the number of lines, expected call attempts per busy hour, and call holding time.")

Contrary to the contention of the GSA, Comments of GSA at 12-13, volume and duration of calls, rather than amount of information transmitted, are the relevant factors in determining burden on the PSTN. The circuit switched nature of the PSTN requires occupation of a circuit

(Continued...)

address call duration or total call load presents a one-dimensional slice that is, at best, irrelevant and, at worst, misleading.

B. LECs Face Significant Increases In Expenditures For Network Upgrades In Order To Accommodate The Increase In Internet-Related Traffic

The additional data collected by GTE are consistent with the findings described in the comments of GTE and other LECs, which demonstrate that ILECs have been forced to incur significant, uncompensated increases in expenditures for network upgrades in order to accommodate the rise in Internet access traffic. As GTE noted in its comments, its operating companies have already committed between $50 million and $85 million, due solely to increased Internet access traffic, in order to avoid a potentially crippling overload of its network.[15]

The Comments of other ILECs confirm GTE's experience. For example, Pacific Telesis found that at the end of 1996, Internet usage accounted for approximately 27 percent of Pacific Bell's total residential traffic, or 30 billion minutes of use.[16] If the exemption is not removed, Pacific Telesis forecasts that by 2001, there will be almost as much residential dial-up Internet traffic as residential voice traffic.[17] Moreover, Pacific Telesis expects that Pacific Bell will generate about $150 million in incremental revenue from ISPs but spend over ***$300 million*** to

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(...Continued)
during the entire connection time, unlike in a packet switched environment.

15 Comments of GTE at 22.

16 Comments of Pacific Telesis Group at 10.

17 *Id.*

support Internet-related traffic over the next five years.[18] As Pacific Telesis notes, because of the disincentives to recovery of costs invested in data networks, these funds will be misdirected to investment in voice public switched networks rather than development of advanced data services.[19]

Similarly, Bell Atlantic alone spent nearly $200 million above its planned network construction budget in 1996 to avoid failures that would impair service to all customers.[20] Bell Atlantic expenditures in 1997 are expected to exceed $300 million, including installation of a large number of new line units and ISDN terminations in central office switches to accommodate additional traffic volumes, and interoffice trunks to carry the traffic between offices.[21] Sprint likewise has experienced Internet-related congestion problems that have required hundreds of thousands of dollars in network expansions to resolve.[22]

Furthermore, new Internet technologies now being implemented are expected to exacerbate the congestion problem. For example, "push" technology will require that the end-user remain connected to the Internet program source during the entire time that the customer's

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18 *Id.* at 31.

19 *Id.*

20 Jt. Comments of Bell Atlantic and NYNEX at 6.

21 *Id.*

22 *See* Comments of Sprint Corp. at 5 (Sprint LECs have been required to spend between $350,000 and $400,000 to add additional trunks to address spikes in traffic levels each time a major Internet access provider has offered flat-rate service to the Internet).

computer is turned on.[23] This technology is likely to increase holding times dramatically, as well as require far higher emergency investment in existing networks to prevent congestion.[24]

As the data provided by GTE and by other commenters make clear, ample evidence of the increase in network traffic and congestion problems exists to warrant FCC action. Calls for the collection of additional information or other deferrals of FCC action[25] are simply delay tactics to maintain preferential treatment of ISPs and should not be credited.[26] Instead, the Commission should move expeditiously to address this real and growing concern.

III. SUB-LOOP UNBUNDLING FOR THE USE OF ISPs SHOULD NOT BE MANDATED

A number of ISPs and other commenters have suggested that ILECs should be required to provide them with unbundled access to various parts of the local loop such as feeder and distribution facilities.[27] However, as the Commission has previously found, it is not possible to provide sub-loop unbundling on a generic basis due to serious network reliability concerns.[28]

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[23] Jt. Comments of Bell Atlantic and NYNEX at 8-9. "Push" technology sends predetermined types of information to the end user's computer without the end user having to retrieve it. It requires that the end user remain connected to the Internet during the entire time the end user's computer is turned on, in order for the information to be "pushed" to that computer as soon as it is available -- with consequential dramatic increases in holding times. *Id.*

[24] *Id.*

[25] *See, e.g.*, Comments of Internet Access Coalition at 61; Comments of Association of Online Professionals at 4.

[26] *See* Comments of AT&T at 19.

[27] *See, e.g.*, Comments of America Online at 24-25; Comments of Internet Access Coalition at 41-42; Comments of WorldCom at 23-24.

[28] Thus, to the extent that sub-loop unbundling is proposed as a precondition to addressing the issue of usage of the PSTN by ISPs, it is a mere delaying tactic and should be dismissed out

(Continued...)

Nor is it likely to be an economically viable distribution option for ISPs. Accordingly, sub-loop unbundling should not be required herein.

A. A General Requirement For Sub-Loop Unbundling Would Impair Service Quality And Raise Grave Risks To Network Reliability

The FCC properly declined to require sub-loop unbundling in its First Interconnection Order on the grounds that proponents of sub-loop unbundling could not adequately respond to the network reliability concerns raised by various ILECs.[29] As GTE explained in its Comments in that proceeding, it is impossible to establish a uniform national requirement for sub-loop unbundling for a number of reasons:

- There are literally dozens of different loop provisioning configurations, each engineered for network integrity purposes as an end-to-end transmission path and frequently lacking any cross-connect box or other demarcation between the feeder and distribution portions of the plant at which a generic unbundling requirement could be implemented.
- There are no industry standards governing what combinations of network elements are used to create a local loop or even the appropriate delineation between feeder and distribution plant.
- Existing ILEC operations support systems are not designed or configured to support the separate provisioning of sub-loop facilities.
- The cost of making available a sub-loop facility for provisioning will vary widely depending upon the network configuration.
- Because there is a lack of compatibility between the different types of analog and digital transmission services that may be provided via local loops, there is a severe risk of inter-service interference from uncoordinated usage of sub-loop facilities due to lack of spectrum management.

(...Continued)
of hand.

[29] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 11 FCC Rcd 15499 (Aug. 8, 1996)("First Interconnection Order"), ¶ 391.

- Because of the complexity of feeder-distribution interfaces resulting from the thousands of cross-connects required at each box, the introduction of new or additional installation and maintenance personnel into such sites for provisioning purposes will increase the potential for service degradation or failure and, thereby, undermine network reliability.

As a result of these factors, the viability of providing any unbundled sub-loop facilities must be considered on a specific, individual case basis. Only where: (i) the necessary facilities exist, (ii) procedures for provisioning and coordinated use can be established, and (iii) the requester agrees to pay all associated costs, can the availability of a sub-loop product even be considered. GTE's experience suggests that these situations will be exceedingly few in number.[30] Although the Commission has indicated that it will further review the question of sub-loop unbundling in 1997,[31] the record here is clearly inadequate to support a reversal of the agency's earlier determinations in this regard.

B. Sub-Loop Unbundling For ISPs Is Particularly Unwarranted

In the Telecommunications Act, Congress established the rights of regulated *carriers* to acquire unbundled network elements from ILECs for the purpose of creating new competitive alternatives for users. The limitation to carriers is clearly reasonable given the inherent risks to service to the public associated with permitting entities to piece out the ILECs' communications networks in order to integrate their own facilities. For obvious reasons, providing such a right to

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30 The FCC has required CLECs to bear the cost of any higher than normal quality network elements they request. Thus, if the Commission were to grant the Internet Access Coalition's related request for authority to acquire digitally conditioned loop facilities (Comments at 45-46), the ISP would be required to pay the cost of such conditioning, equipment removal or other reconfiguration in that circumstance as well.

31 First Interconnection Order, ¶ 391.

ISPs, which are not subject to governmental oversight, would present an even greater risk to the network and the services provided to others without offering any such pro-competitive justification. The risks would be particularly great in the context of sub-loop unbundling.

Absent the imposition of similar regulatory responsibilities upon both parties to a sub-loop provisioning arrangement, it will be impossible to obtain the necessary level of assurance that the risks identified above can be avoided or that, if problems occur, they will be promptly remedied. The burden of enforcement would fall solely on the ILEC, and its customers would bear the costs. This would be both manifestly unfair and ill-advised as a matter of public policy.

IV. GTE CONCURS IN AT&T'S SHOWING THAT INTERNET ACCESS TRAFFIC IS PRESUMPTIVELY INTERSTATE AND SUBJECT TO THE COMMISSION'S JURISDICTION

GTE concurs in the Comments of AT&T that the Commission should adopt a rebuttable presumption that Internet access services are subject to the Commission's jurisdiction due to their overwhelmingly interstate character.[32] Such a presumption comports with the characteristics of Internet traffic and with settled case law for regulating services that, like Internet traffic, have a significant interstate use or character but cannot readily be broken down into distinct interstate and intrastate components.[33]

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[32] *See* Comments of AT&T at 28.

[33] *See, e.g., Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 375-79 (1986); *Cal. v. FCC*, 39 F.3d 919, 931-33 (9th Cir. 1994), *cert. Denied*, 115 S. Ct. 1427 (1995); *Pub. Utility Comm'n of Texas v. FCC*, 886 F.2d 1325, 1331-34 (D.C. Cir. 1989).

A. The Presumption That Internet Access Traffic Is Interstate In Character Accurately Reflects The Nature Of The Internet

Internet access traffic is overwhelmingly interstate in character, and even where this is not the case, customers will almost inevitably access multiple applications and databases during a typical session, a large fraction of which are likely to involve interstate transmission.[34] The use of new "push" technologies will further reinforce the interstate character of Internet transmissions. In any event, the predominant interstate and, indeed, international scope of the Internet clearly warrants treatment of Internet access arrangements under uniform policies established *and administered* at the federal level.

As pointed out by U S WEST, the current regime results in a massive allocation of costs to the intrastate jurisdiction,[35] but states are limited in their flexibility to recover those costs from the cost causers. This jurisdictional mismatch of costs and cost recovery has fostered the current noncompensatory predicament facing ILECs and presents a major disincentive to the deployment of new data-friendly technologies.[36] Given the Commission's and the nation's interest in promoting the Internet and related offerings, it would clearly be reasonable for the agency to assert an appropriate level of federal jurisdiction in this context.

Nonetheless, GTE also agrees with AT&T that the presumption that particular Internet access traffic is jurisdictionally interstate could be rebutted by a convincing showing that the

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34 *See* Comments of AT&T at 28-30.

35 *See* Comments of U S WEST at 22.

36 Furthermore, this creates, in effect, a reverse subsidy in which costs of predominantly interstate service are recovered in intrastate rates. Such an outcome is wholly inconsistent with the historical policy of subsidizing local service through interstate rates.

traffic is, in fact, intrastate in character. Such a showing could be based on traffic studies, network design, server locations, or other factors analogous to those used to dispute classification of dedicated line services under the Joint Board's jurisdictional allocation regime.[37] In this manner, legitimate state prerogatives would not be trampled.

B. Mutual Compensation Should Not Apply To Internet Access Traffic In Order To Prevent Gaming Of The System

As GTE noted in its Comments, competitive LECs are currently marketing their offerings to Internet access providers and other ISPs for the sole purpose of capturing those entities' overwhelmingly terminating traffic in order to obtain transport and termination charges from LECs under reciprocal local compensation arrangements.[38] Other commenters confirm the existence of such practices.[39] If CLECs are successful in this attempt, ILECS will remain responsible for the vast majority of the network cost increases caused by Internet access usage, incur a new cost burden in terminating payments to CLECs, and lose all revenues from ISPs themselves.

CLECs should not be permitted to game the system in this manner or otherwise allowed to take advantage of arbitrage possibilities that lack any reasonable technological or economic basis. Rather, costs should be recovered from those who cause them to be incurred. When public policy determines that end users are entitled to below cost services, appropriate

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[37] *See* Jt. Comments of Bell Atlantic and NYNEX at 14 n.25 (similarly arguing that the FCC should follow its "10 percent rule").

[38] Comments of GTE at 32-33.

[39] *See* Comments of Pacific Telesis Group at 21; Jt. Comments of Bell Atlantic and NYNEX at 9.

mechanisms should be established that explicitly recover the costs associated with the subsidized services. Classification of Internet traffic as interstate, interexchange usage will further this goal by ensuring that this traffic is not subject to mutual compensation arrangements.[40]

V. THE CURRENT SYSTEM DOES NOT PROVIDE FOR SUFFICIENT RECOVERY OF ACTUAL COSTS BY LECS

A. Business Line Rates And Flat-Rated Residential Charges Do Not Provide Sufficient Revenues To Recover ILECs' Actual Costs.

The ISP access charge exemption effectively precludes ILECs from recouping their substantial costs in network investments, thereby creating an implicit subsidy system in contravention of sound economic and regulatory policy, as well as applicable legal requirements.[41] GTE explained in its comments that current rates business and residential telephone do not adequately compensate ILECs for services provided to ISPs. Other commenters agree that second-line revenues and business line rates are insufficient to recover ILEC costs.[42]

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[40] *See* First Interconnection Order, ¶ 1034.

[41] As the Commission observed in another proceeding:

> Carriers under the Commission's jurisdiction must be allowed to recover the reasonable costs of providing service to ratepayers, including reasonable and prudent expenses and a fair return on investment. This fundamental requirement is unchanged by the Telecommunications Act of 1996.

Accounting for Judgments and Other Costs Associated with Litigation, CC Docket No. 93-240, FCC 97-80, ¶ 2 (rel. Mar. 13, 1997)(citation omitted).

[42] *See* Comments of Southwestern Bell at 11 (revenues received from second lines used to access the Internet do not recover their costs); Comments of GTE at 24-25; Jt. Comments of Bell Atlantic and NYNEX at 10 n.19 (although some customers may pay message units for originating calls, there is no usage charge for terminating traffic, and message unit charges fall far short of compensating for delivering Internet access traffic). *See generally* Comments of GTE, CC Docket No. 96-98 ("GTE Interconnection Comments").

In any event, no statistical support exists for the ISPs' claim that the demand for second lines is primarily caused by Internet use or that second line revenues should be credited to Internet traffic.[43] The proliferation of facsimile technology, telecommunicating, children's lines, and a host of other uses all contribute to the increase in use of residential second lines. As GTE has explained, where Internet traffic is involved, the additional revenue is insufficient to compensate for the increased usage, particularly given the lack of vertical services purchased on such lines.

B. TELRIC Does Not Provide An Effective Measure Of ILEC Costs For Compensation Purposes

Contrary to the suggestions of a number of ISPs and other commenters who have an interest in perpetuating ILECs' subsidization of ISPs,[44] TELRIC, or "total element long-run incremental costs," does not provide an appropriate measure of the actual costs of the communications services utilized by ISPs. Under the Commission's TELRIC standard, prices would be set based solely on the incremental forward-looking costs of a hypothetical, ideally efficient, state-of-the-art network.[45] It would, thus, preclude recovery of the actual costs of ILEC operations.[46] For these reasons, the U.S. Court of Appeals for the Eighth Circuit has tentatively concluded that TELRIC pricing is unlawfully non-compensatory.[47]

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43 *See* Jt. Comments of Bell Atlantic & NYNEX at 10-11.

44 *See, e.g.*, Comments of CompuServe & Prodigy at 12; Comments of AT&T at 25-26; Comments of MCI at 6.

45 First Interconnection Order, ¶¶ 685, 690.

46 *See id.* ¶¶ 672, 204-07.

47 *Iowa Utilities Bd. V. FCC*, No. 96-3321, 1996 WL 589204 (8th Cir. Oct. 15, 1996). For (Continued...)

Application of TELRIC would also provide a disincentive to development of state-of-the-art data-friendly networks, contrary to the professed goals of the FCC and all commenters. It would be irrational for any competitor to build its own facilities when the FCC has guaranteed it a right to use the incumbent's facilities at the incremental cost of the best up-to-the-moment technologies. No entrant can hope to be more efficient - and to achieve lower cost - than the hypothetical, ideally-efficient network contemplated by TELRIC. As a consequence, no new entrant will incur the expense or take the risk of building facilities of its own.[48]

Application of a TELRIC-based Internet pricing methodology to access services would likewise discourage incumbent LECs from investing in their own networks. On any given day, regulators would always be able to hypothesize technology that is more efficient than what an incumbent LEC was able to purchase yesterday.[49] TELRIC pricing would, thus, guarantee a

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(...Continued)
similar reasons, the assertion by the Commercial Internet Exchange Association ("CIX") that business line rates must be compensatory because they exceed the FCC's prescribed TELRIC-based proxy prices for comparable functionality is wholly without foundation. *See* Comments of CIX at 12.

[48] MFS, for example, announced plans last fall to "re-orient []its network build-out focus away from building to end-users . . . connect []customer via incumbent local exchange carrier (ILEC) unbundled loops." *MFS Communications*, Merrill Lynch Capital Markets, Nov. 7, 1996, at 2. *See also, London On The Line*, The Washington Post (Nov. 10, 1996) (British Telecom has no plans to build facilities of its own here but instead will "purchase bulk capacity from local telephone carriers" and thereby "leverage other people's infrastructure").

[49] *See* Declaration of Alfred E. Kahn and Timothy J. Tardiff, ¶ 8(a), filed with the Reply Comments of Bell Atlantic, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, FCC 96-328 (May 30, 1996) (Appendix at 63).

systematic under-recovery of costs for incumbent LECs and, thereby, simply perpetuate the current cost recovery crisis.[50]

C. Failure To Allow Full Recovery Of Costs Will Create A Massive Disincentive To Investment In Data-Friendly Networks.

GTE submits that the principle of payment of actual costs should apply equally to ISPs as it does to other carriers and service providers. The current contrary practice creates a direct *disincentive* to development of data-friendly, packet-switched networks that can adequately accommodate increased Internet usage.[51] As GTE noted in its Comments, Internet access usage of local business lines is effectively subsidized, because such lines generate few outgoing calls, instead receiving calls from ISP customers and paying only the basic flat rate portion of the business line charges.[52] This subsidy, which results in the provision of effectively "free"

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[50] *See* Affidavit of Jerry Hausman, ¶¶ 5-8, filed with the Reply Comments of the United States Telephone Ass'n, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, FCC 96-328 (May 30, 1996) (Appendix at 81).

[51] *See* Comments of AT&T at 5, 16, 18-19. The Commercial Internet Exchange Association is simply wrong in arguing that ISP affiliates of LECs are, unlike their ISP competitors, unaffected by access charges, because such charges are "a mere accounting entry between affiliated companies." Comments of CIX at 19. LECs are precluded by their Cost Allocation Manuals, *i.e.*, the Docket 86-111 rules, from cross subsidizing between regulated and nonregulated services.

[52] *See* Comments of GTE 23. The vast majority of ISPs' largely residential customers, in turn, also use flat-rated local services to access their Internet offerings. Id.

ISPs' one-way directionality, together with their call volumes and holding times -- which, as the experience of LECs to date illustrates, *see supra*, Section II, makes them a particularly heavy burden upon LECs without a proportional increase in revenue -- distinguish ISPs from other business users. Thus, WorldCom's contention that because local business rates include a universal service subsidy, ESPs must be paying more than their fair share of costs, Comments of WorldCom at 15, fails entirely to recognize the unique characteristics of ISP use. Although average business customers do subsidize residential customers, since LECs realize no margin above cost when serving ISPs, no such subsidy exists. In any event, any universal service

(Continued...)

incremental service to ISPs, retards the development of data-friendly networks,[53] contrary to what the FCC[54] and *all* commenters agree is the preferable means for supporting Internet-related traffic.

This conclusion is confirmed by the experience of Bell Atlantic. Since Bell Atlantic has begun offering its new packet-based Internet access service, no ISPs have subscribed.[55] Thus, the FCC's current practice provides ISPs with a direct and massive economic incentive to continue to rely upon local business lines using voice-based PSTN, rather than supporting investment in data-based packet-switching networks. Such a result directly undermines Congress' express intention in passing the 1996 Act to "accelerate rapidly private sector deployment of advanced telecommunications [ ] and information technologies,"[56] as well as the FCC's goal to "create

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(...Continued)
subsidy is directed to universal service, and is therefore not available to LECs to defray ISP use.

GSA's claim that ISPs and business user customers of local exchange services pay local message charges for all voice and data messages that transit local networks, Comments of GSA at 16, is incorrect. Businesses do not pay message charges to terminate traffic. Similarly, GSA's assertions that local usage is "almost invariably" priced "far in excess of incremental cost," and that the incremental costs of furnishing additional lines to residential users are "extremely low," are unsupported.

53 Comments of AT&T at 19; Comments of Pacific Telesis Group at 35; Comments of US WEST at 26.

54 NOI, ¶ 313.

55 Jt. Comments of Bell Atlantic & NYNEX at 13. Other ILEC-offered packet access services have similarly failed to attract significant interest from unaffiliated ISPs. Comments of MCI at 10.

56 H.R. Conf. Rep. No. 104-458, at 113 (1996).

incentives for the deployment of services and facilities to allow more efficient transport of data traffic to and from end users."[57]

GTE agrees with commenters that the Commission's rules and policies should "encourage service providers to take business risks and make capital investments in data communications technologies that respond to consumer demand,"[58] and that investments should be based on the anticipation of future revenues generated by new or improved services.[59] GTE notes however, that: i) risk is always related to pricing, but ILECs have been denied the opportunity to adjust prices to reflect risk; and ii) ILECs are unable to realize any further revenues as long as the access service charge exemption is in place. Current FCC rules provide a disincentive to invest in long-term facilities that have no potential to produce future revenues.[60] Only by allowing prices to reflect underlying costs, making subsidies explicit, eliminating unreimbursed subsidies, and giving ILECs necessary pricing flexibility can the FCC encourage ILECs to assume the appropriate risks of building new networks for Internet-related traffic.

VI. CONCLUSION

GTE again urges the Commission to promulgate a consistent and comprehensive pricing policy to govern all jurisdictionally interstate services. Such a pricing policy should permit LECs to recover their actual costs from cost causers and ensure that all users, service applications, and technologies are subject to correct, cost-based economic signals, so that rational

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57 NOI, ¶ 313.

58 Comments of Internet Access Coalition at 4.

59 Comments of General Services Administration at 10.

60 *Cf.* Jt. Comments of Bell Atlantic and NYNEX at 5.

investment choices can be made that will best promote the development of an efficient, economical, and technologically advanced network.

Respectfully submitted,

GTE SERVICE CORPORATION,
on behalf of its affiliated companies

Ward W. Wueste
Gail L. Polivy
1850 M Street, N.W
Suite 1200
Washington, DC 20036

R. Michael Senkowski
Richard T. Pfohl
WILEY, REIN & FIELDING
1776 K Street, N.W.
Washington, DC 20006

April 23, 1997

DUPLICATE

WILEY, REIN & FIELDING

1776 K STREET, N. W.
WASHINGTON, D. C. 20006
(202) 429-7000

FACSIMILE
(202) 429-7049

WRITER'S DIRECT DIAL NUMBER
(202) 429-4271

April 24, 1997

APR 2 4 1997

By Hand Delivery

William F. Caton
Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Re: GTE Service Corporation
Reply Comments of GTE
Supporting Affidavit of H. Lee Jones
CC Docket No. 96-263

Dear Mr. Caton:

Attached herewith are an original and twelve copies for filing of the affidavit of H. Lee Jones, a faxed copy of which was filed yesterday with the Reply Comments of GTE Corporation in the above captioned docket. Also included with the affidavit are Charts 3 and 4, which were inadvertently omitted from the copy of the affidavit as filed yesterday. If you have any questions, please contact the undersigned.

Respectfully submitted,

Richard T. Pfohl

Enclosures

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DUPLICATE

AFFIDAVIT OF H. LEE JONES

STATE OF TEXAS |
|
COUNTY OF DALLAS |

I, H. Lee Jones, being duly sworn state as follows regarding Supervision and Coordination of the Internet Service Provider Terminating call study:

1. I am Group Product Manager-Network Access Services, Carrier Markets Product Management, for GTE Telephone Operations. My principal duties and responsibilities are the management of products and services sold to the Internet Service Provider wholesale market segment. I coordinated and supervised the Signaling System 7 (SS7) link study outlined below.

2. Earlier this year, GTE commissioned a study that monitored SS7 traffic. With this study capability GTE can specifically identify Internet traffic on its interoffice trunk network. The study gave GTE the ability to study local exchange (non-toll) calling on a call detail basis similar to toll calling detail without the rating or billing data. The study recorded the "from" and "to" telephone numbers from the initial address message created for SS7 routing and call control processes. The study also monitored all calls for holding time. Normally, such information is not recorded.

3. For this study, equipment polled the SS7 Signal Control Point for all calls to a group of end offices in the Tampa, Florida, metropolitan region in which Internet Service Providers (ISPs) were served. Over the seven day period of the study, 7.3 million calls were polled. The study package stored these records for further inquiry such as sorting calls between ISPs and other calls.

4. The study recorded all interoffice terminating traffic to Tampa Main, Tampa East and Ybor City offices. The recorded traffic included the terminating local calling, the terminating 1+ seven digit terminating toll as well as the terminating 1+ ten digit interLATA access traffic to IXC points of presence served by these three offices. Thus, the study shows the total terminating interoffice trunk capacities utilized in one week for a major metropolitan area. By collecting "to" telephone numbers, the study distinguished ISP from non-ISP traffic. Although the study focused on traffic in the Tampa metropolitan region, the study could be replicated in any region served by GTE.

5. The conclusions of this study are threefold:

   a. The Internet access usage on the interoffice terminating trunk load during the business day (8:00 A.M. to 5:00 P.M.) busy hour (3:00 P.M. to 4:00 P.M.) was approximately one-third of the total terminating trunk usage. See Chart #1 where hour 15-16 (3:00 P.M. to 4:00 P.M.) showed 750,000 CCS (Centum Call Seconds - a unit of 100 seconds of PSTN usage) for non-ISP and 350,000 CCS for ISP. The total of 1.1 million (750,000+350,000) CCS was the design parameter used for sizing the interoffice terminating trunk capacity. Thus, the ISP calls were almost one-third of the facility requirements.
   b. The holding time for ISP calls was approximately 22 minutes in the 15-16 busy hour; non-ISP calls in that hour, approximately 2.5 minutes. Thus, each ISP call contributed on average nearly nine times as much usage as non-ISP calls to total network usage.
   c. The call volume of ISP traffic at the busy hour is represented on Chart #2. This data shows 4.3% of the call volume as ISP. Despite the relatively low volume of ISP calls, as Chart #1 demonstrates, due to the relatively long holding time of

ISP calls, ISP calls constituted approximately one-third of terminating trunk capacity. This demonstrates relatively small call volumes with long holding times can yield a substantial level terminating trunk capacity in the busy hour.

In the study volume of 89,000 daily busy hour calls, the four percent (4%) of calls (approximately 4,000) making up the internet access calls had an identifiable terminating interoffice trunk requirement of approximately 1,800 trunks. If the internet access calls had had a holding time of 2.57 (the time of non-ISP) minutes, the identifiable terminating trunk requirement would have been 200 trunks. Thus, 1,600 trunks is the additional requirement attributable to the net increase in holding time for the internet access calls. As mentioned previously, the busy hour proportion of terminating interoffice trunk quantities consumed by internet access usage was approximately one-third of total terminating trunks.

This study, to the best of my ability and judgment, clearly shows that internet access call characteristics such as holding time and call volume create additional interoffice terminating trunk requirements for additions to the public switched network.

H. Lee Jones

H. Lee Jones, Affiant

Subscribed and sworn to before me on this 23rd day of April 1997.

Michele Slaboda

Michele Slaboda, Notary Public
Commission Expires: 06/09/98
County of Dallas, State of Texas

Chart 1

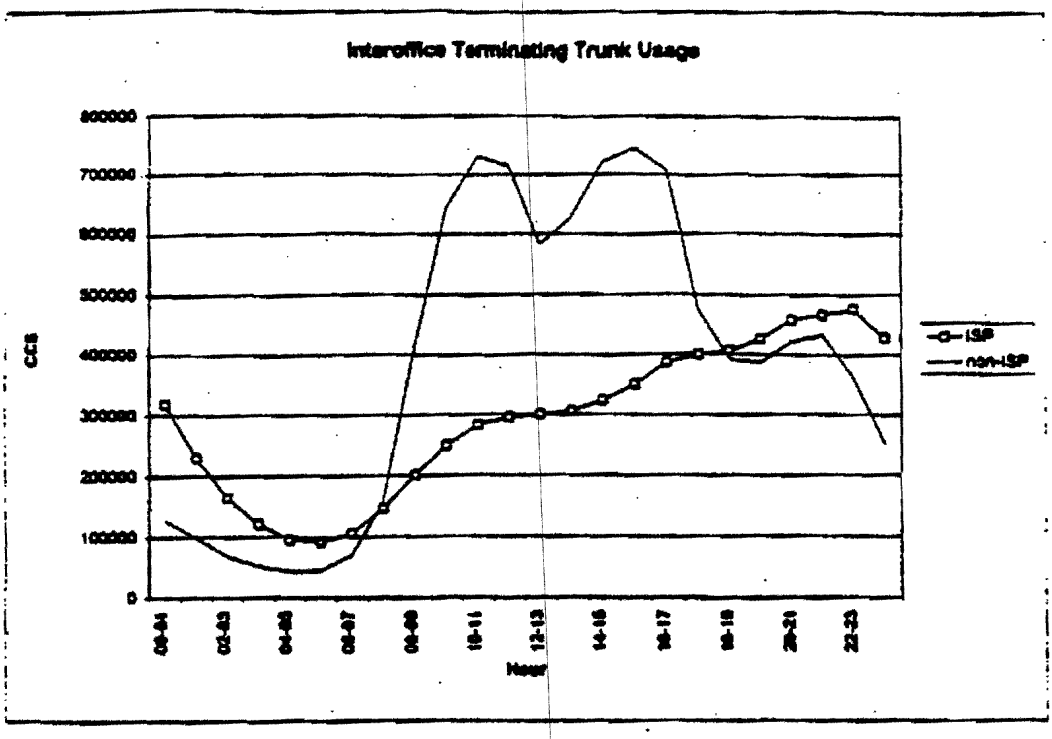

Interoffice Terminating Trunk Usage
CCS
800000
700000
600000
500000
400000
300000
200000
100000
0
Hour
ISP
non-ISP

Chart 2

COMPLETED CALLS AND AVERAGE HOLDING TIME PER CALL FOR FIVE WEEKDAYS STUDIED ISP TRAFFIC vs NON-ISP TRAFFIC

HOUR	ISP COMPLETED	NON-ISP COMPLETED	ISP HOLDING TIME	NON-ISP HOLDING TIME
00-01	1660	10158	25.01	2.76
01-02	876	8358	27.81	1.96
02-03	528	7784	30.00	1.47
03-04	359	7497	42.14	1.26
04-05	341	7440	27.24	1.16
05-06	595	8554	28.91	1.09
06-07	1183	12591	21.26	1.70
07-08	2003	24849	21.66	2.45
08-09	2659	56047	21.79	2.68
09-10	2738	76963	22.55	2.62
10-11	2772	82506	22.45	2.65
11-12	2792	81427	22.20	2.52
12-13	3121	68977	21.39	2.33
13-14	2915	73934	19.03	2.52
14-15	3147	81457	19.92	2.60
15-16	3865	84898	22.04	2.57
16-17	4670	80574	24.11	2.54
17-18	4625	52498	25.89	2.44
18-19	4680	39171	23.57	2.70
19-20	4590	33015	23.53	3.09
20-21	5244	31180	27.35	3.52
21-22	6264	26684	31.50	4.10
22-23	4695	20586	22.89	4.23
23-24	3133	14463	22.24	3.68

Total calls studied are shown in the table below:

Chart 3

TOTAL CALLS STUDIED

	MON.	TUE.	WED.	THUR.	FRI.	TOTAL
NON-ISP ATTS.	1,408,725	1,448,822	1,415,840	1,346,840	1,219,484	6,839,522
NON-ISP COMPS.	1,020,662	999,749	979,444	988,130	970,080	4,958,065
ISP ATTS	127,290	127,290	105,687	79,548	63,453	503,268
ISP COMPS.	77,895	72,621	74,820	64,053	57,891	347,280

The following table depicts the total calls studied during the five week days. This shows the overall average holding time of both the ISP calls and the non-ISP calls. Calls that were not completed includes calls that were not completed regardless of the reason, *i.e.*, ring-no-answer, busy, etc.

Chart 4

	Completed Calls	Duration in Minutes	Average Holding Time in Minutes	Non-Completed Calls	Percent Completed Calls	Percent of Total Traffic
ISP Traffic	347,280	8,629,908	24.85	155,988	69.00%	40.75%
Non-ISP Traffic	4,958,065	12,543,904	2.53	1,881,457	72.50%	59.25%
Total Traffic	5,305,345	21,173,812	3.99	2,037,445	72.25%	100%

In this study, as reflected in Chart 4, non-completed calls include "ring-no-answer" calls, "line-busy" calls, calls abandoned by a customer post-dial, as well as blocked calls.

203-

Total records (calls):	40471	Distinct TANI	209
Total Raw_duration (minutes of use):	1,673,744	Total calls < 6 seconds	237
Average call duration: minutes	41.3566	Total minutes excuding above	1673720
		Average call duration excluding drops	41.59965
The number of calls with a duration of:			
less than 5 minutes	16,165	Minutes dialed to Coast to coast data	190959.1
between 5 and 30 minutes	13,146	Percent of total minutes	11.41%
between 30 and 60 minutes	5,291		
between 60 and 120 minutes	3,187		
between 120 and 180 minutes	982		
between 180 and 600 minutes	1584		
between 600 and 1440	93		
greater than 1440 minutes	43		
The longest single call was	30,477.90		
Total of minutes of use that occurred on calls of 120 minutes or greater	964,974		
% of total minutes on calls > 120 min.	57.65%		

Total records (calls):	38812	Distinct TANI	200
Total Raw_duration (minutes of use):	1692085	Total calls < 6 seconds	228
Average call duration: minutes	43.596965	Total minutes excuding above	1692062
		Average call duration excluding drops	43.85399
The number of calls with a duration of:			
less than 5 minutes	15950	Minutes dialed to Coast to coast data	184006.6
between 5 and 30 minutes	12317	Percent of total minutes	10.87%
between 30 and 60 minutes	4946		
between 60 and 120 minutes	2979		
between 120 and 180 minutes	979		
between 180 and 600 minutes	1449		
between 600 and 1440	128		
greater than 1440 minutes	64		
The longest single call was	19660.7		
Total of minutes of use that occurred on calls of 120 minutes or greater	1028176.6		
% of total minutes on calls > 120 min.	60.76%		

Total records (calls):	28877	Distinct TANI	172
Total Raw_duration (minutes of use):	1303770.2	Total calls < 6 seconds	261
Average call duration: minutes	45.149086	Total minutes exlcuding above	1303744
		Average call duration excluding drops	45.55997
The number of calls with a duration of:			
less than 5 minutes	11974	Minutes dialed to Coast to coast data	158642.3
between 5 and 30 minutes	8955	Percent of total minutes	12.17%
between 30 and 60 minutes	3562		
between 60 and 120 minutes	2303		
between 120 and 180 minutes	681		
between 180 and 600 minutes	1243		
between 600 and 1440	103		
greater than 1440 minutes	56		
The longest single call was	13475.5		
Total of minutes of use that occurred on calls of 120 minutes or greater	807528		
% of total minutes on calls > 120 min.	61.94%		

Total records (calls):	40526	Distinct TANI	267
Total Raw_duration (minutes of use):	1654777	Total calls < 6 seconds	238
Average call duration: minutes	40.832478	Total minutes exlcuding above	1654754
		Average call duration excluding drops	41.07312
The number of calls with a duration of:			
less than 5 minutes	16955	Minutes dialed to Coast to coast data	214603.8
between 5 and 30 minutes	12811	Percent of total minutes	12.97%
between 30 and 60 minutes	5001		
between 60 and 120 minutes	3153		
between 120 and 180 minutes	917		
between 180 and 600 minutes	1493		
between 600 and 1440	129		
greater than 1440 minutes	67		
The longest single call was	10860.3		
Total of minutes of use that occurred on calls of 120 minutes or greater	961744.3		
% of total minutes on calls > 120 min.	58.12%		

Total records (calls):	38700	Distinct TANI	393
Total Raw_duration (minutes of use):	1638914.8	Total calls < 6 seconds	230
Average call duration: minutes	42.34922	Total minutes exlcuding above	1638892
		Average call duration excluding drops	42.60181
The number of calls with a duration of:			
less than 5 minutes	16504	Minutes dialed to Coast to coast data	196665.1
between 5 and 30 minutes	11574	Percent of total minutes	0.119997
between 30 and 60 minutes	4785		
between 60 and 120 minutes	3044		
between 120 and 180 minutes	1005		
between 180 and 600 minutes	1593		
between 600 and 1440	147		
greater than 1440 minutes	48		
The longest single call was	13907.7		
Total of minutes of use that occurred on calls of 120 minutes or greater	983500.3		
% of total minutes on calls > 120 min.	60.01%		

Total records (calls):	43014	Distinct TANI	416
Total Raw_duration (minutes of use):	1823285.5	Total calls < 6 seconds	284
Average call duration: minutes	42.388188	Total minutes exlcuding above	1823257
		Average call duration excluding drops	42.66925
The number of calls with a duration of:			
less than 5 minutes	18127	Minutes dialed to Coast to coast data	218695.8
between 5 and 30 minutes	13252	Percent of total minutes	12.01%
between 30 and 60 minutes	5205		
between 60 and 120 minutes	3374		
between 120 and 180 minutes	1048		
between 180 and 600 minutes	1825		
between 600 and 1440	128		
greater than 1440 minutes	54		
The longest single call was	12929.6		
Total of minutes of use that occurred on calls of 120 minutes or greater	1094757.7		
% of total minutes on calls > 120 min.	60.04%		

Global NAPs Goes All Packet
Posted on: 02/08/2001

Global NAPs (www.gnaps.com) reports that it is the first local exchange carrier to leave the circuit-switched world completely behind and move to an all-packet-based broadband network. By abandoning the traditional circuit switch equipment, the Quincy, Mass.-based CLEC says it can deliver four times the capacity in one-tenth the space and at one-tenth the cost.

To accomplish this feat, Global NAPs deployed more than 30 ICS2000 broadband switches from Convergent Networks Inc. (www.convergentnet.com) to create the network's foundation. The company also used the SN 8000 intelligent optical transport platform from Sycamore Networks (www.sycamorenet.com) and the ASX-4000 core ATM switch from Marconi Communications (www.marconi.com). Global NAPs says that all of this equipment has been interconnected into a distributed, high-capacity "virtual" switch that carries more than 2 billion minutes of traffic each month.

"Our next-generation broadband network is an order of magnitude more efficient than any other carrier's circuit switch network," Frank Gangi, president and CEO of Global NAPs, said in a statement. "What previously consumed 15,000 square feet of central office space now requires just 1,500 square feet. This watershed event heralds the first major step in achieving Global NAPs' publicly stated goal of 'all calls are local.' We are now in a position to provide voice, transport and data services better, faster and cheaper than anyone else."

In addition to maintaining its own nationwide SS7 network, Global NAPs also has a switched gigabit Ethernet IP fiber backbone along the East Coast. Wholesale customers for that network include ISPs Mindspring, WebTV and Prodigy. Global NAPs says that about 75 percent of all dial-up Internet traffic in the New England states flows through its network.

Global NAPs, which debuted in May 1995, offers competitive telecom services in more than a dozen states, including Florida, Massachusetts, New Jersey, New York, Pennsylvania and Virginia.

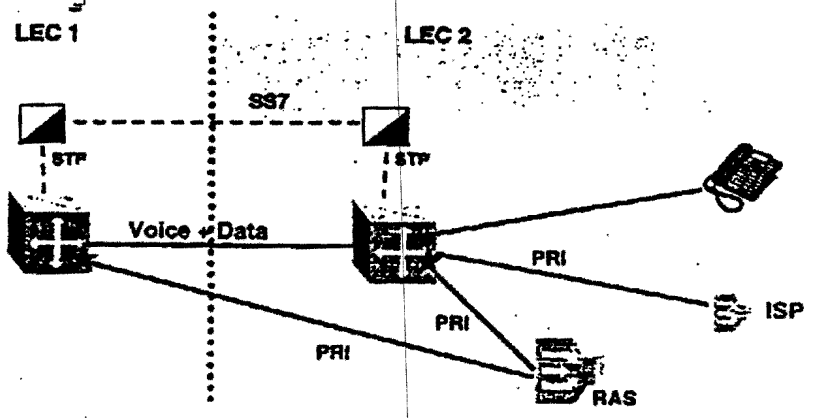
Fall 1999

NORTEL NETWORKS

SS7 Enabled Services

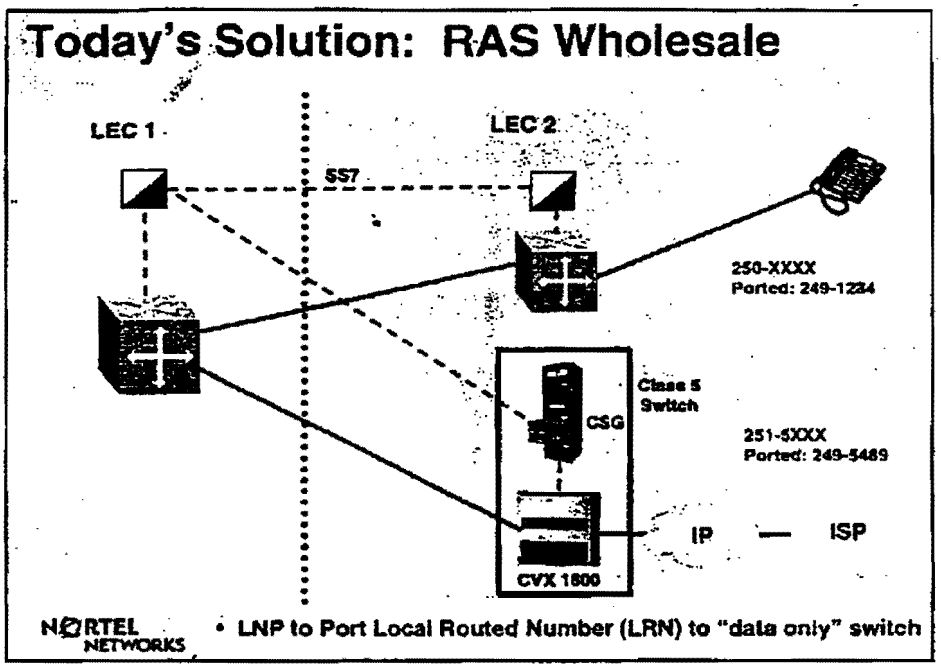
Ken Clay
Network Access Division

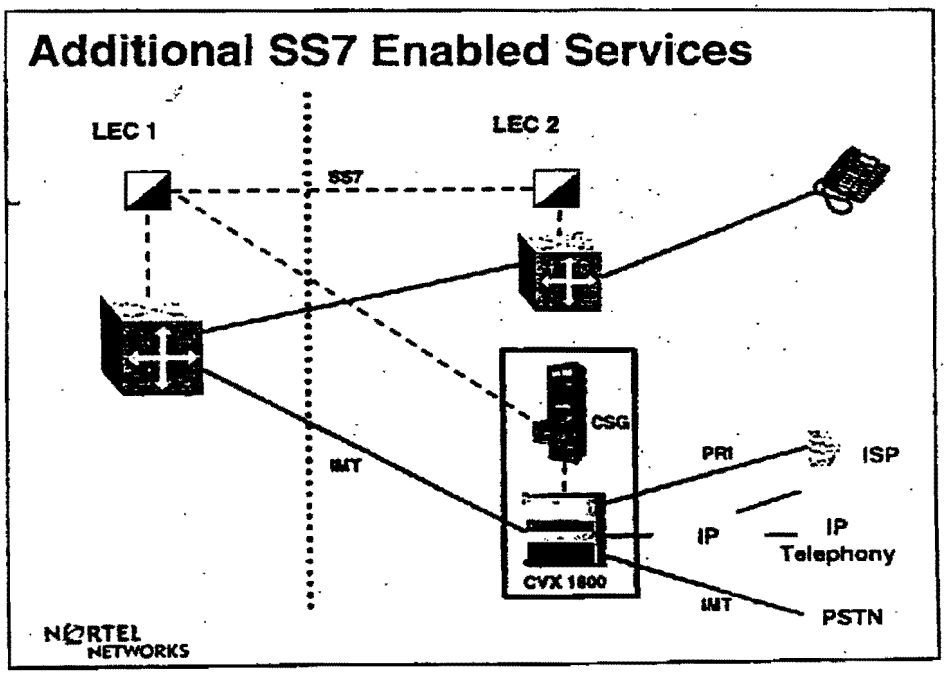
The Problem



- Voice/data terminated on the same class 5 switch
- Data hold times average 20+ minutes
- Voice hold times average 3 minutes
- Many networks designed for voice hold times

NORTEL NETWORKS


Today's Solution: RAS Wholesale
LEC 1
LEC 2
SS7
250-XXXX
Ported: 249-1234
Class 5
Switch
CSG
251-5XXX
Ported: 249-5489
IP
ISP
CVX 1600
NORTEL NETWORKS
• LNP to Port Local Routed Number (LRN) to "data only" switch


Additional SS7 Enabled Services
LEC 1
LEC 2
SS7
CSG
IMT
PRI
ISP
IP
IP
Telephony
CVX 1600
IMT
PSTN
NORTEL NETWORKS

Benefits

- Removes data traffic from voice switch
- Utilizes existing T1/ISUP infrastructure
- PRI cost avoidance
- Enabler for value-added services
  - PRI for ISPs
  - IP telephony
  - IMT to IMT
- "SS7 Enabled" legacy RAS platforms

NORTEL NETWORKS

Jim Winkler
CTO and Chief Engineer
NaviNet

Switch Bypass Case Study

March 1, 2000
Atlanta, GA
Telcordia ITESF12

Overview
NaviNet's Dialup Network : A Case Study

- Architecture
  - Connection to PSTN
  - IP and Internet Design
- Switch Bypass Advantages
- Switch Bypass Challenges
- Ideal Switch Bypass Deployment
- Value Added Services Enabled by SS7

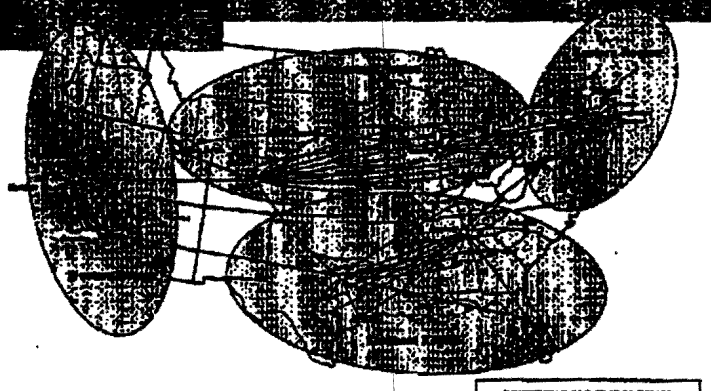
NaviNet

Protection from PSTN: NaviNet's Architectural Goals, July 1997

- Reduce number of POPs: use "SuperPOP" CLEC call aggregation model
- Reduce costs: replace expensive PRIs with SS7 trunks and switch bypass
- Increase quality: reduce busy signals with capacity control and bypass of terminating switch
- Reduce strain on PSTN

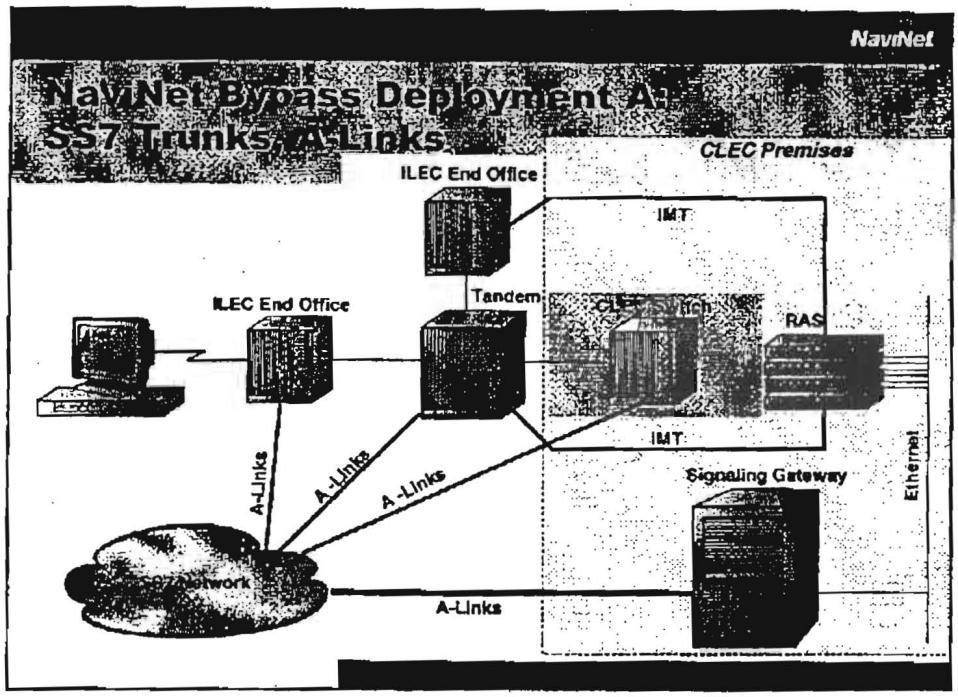
NaviNet

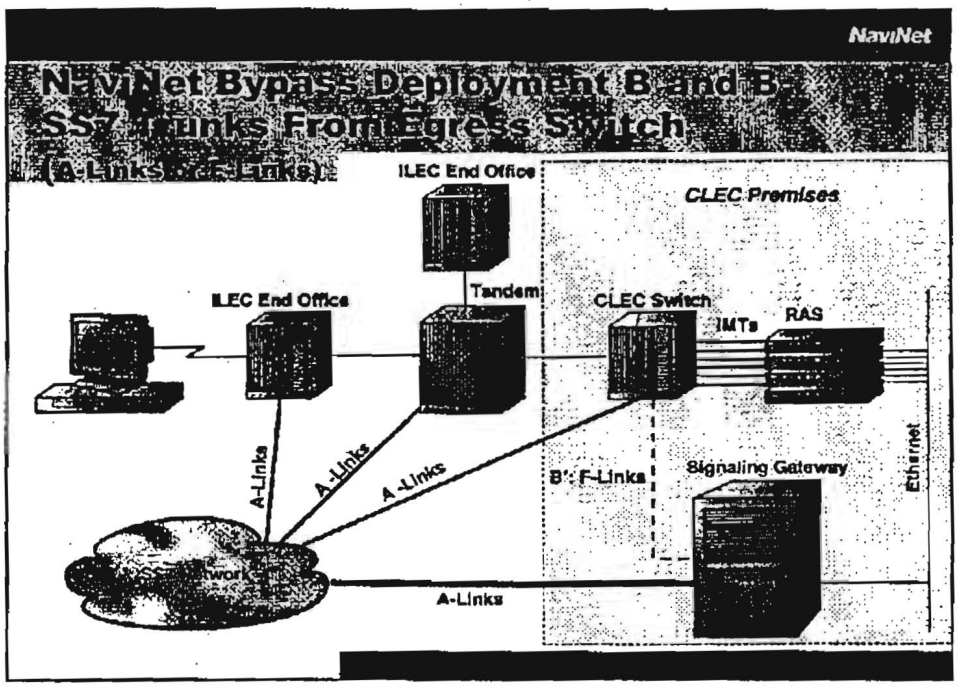
Dial-Up POPs and Broadband

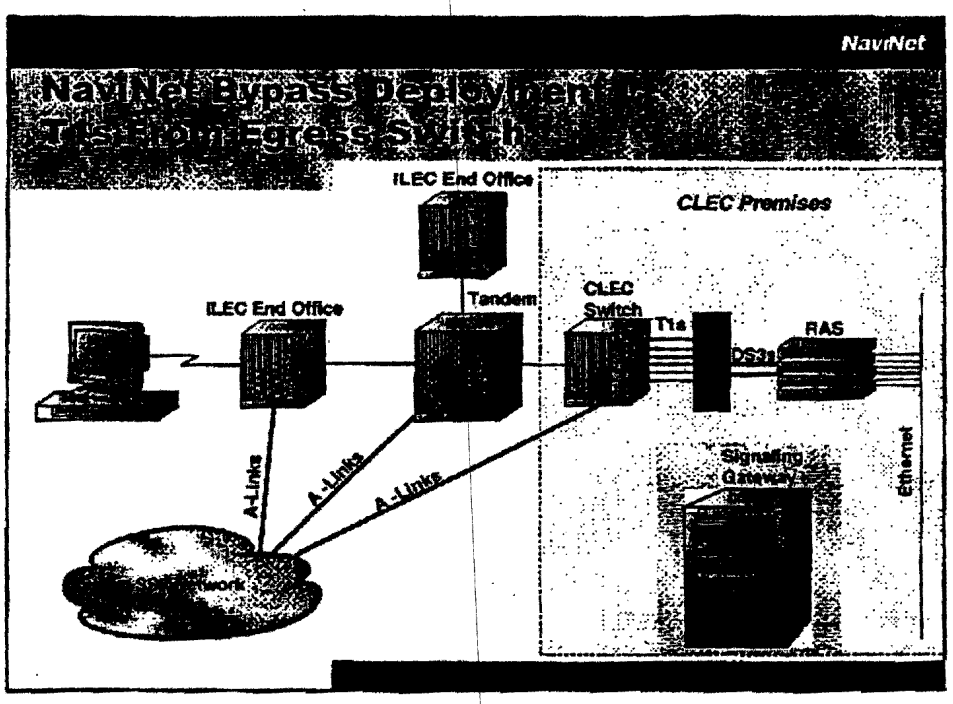


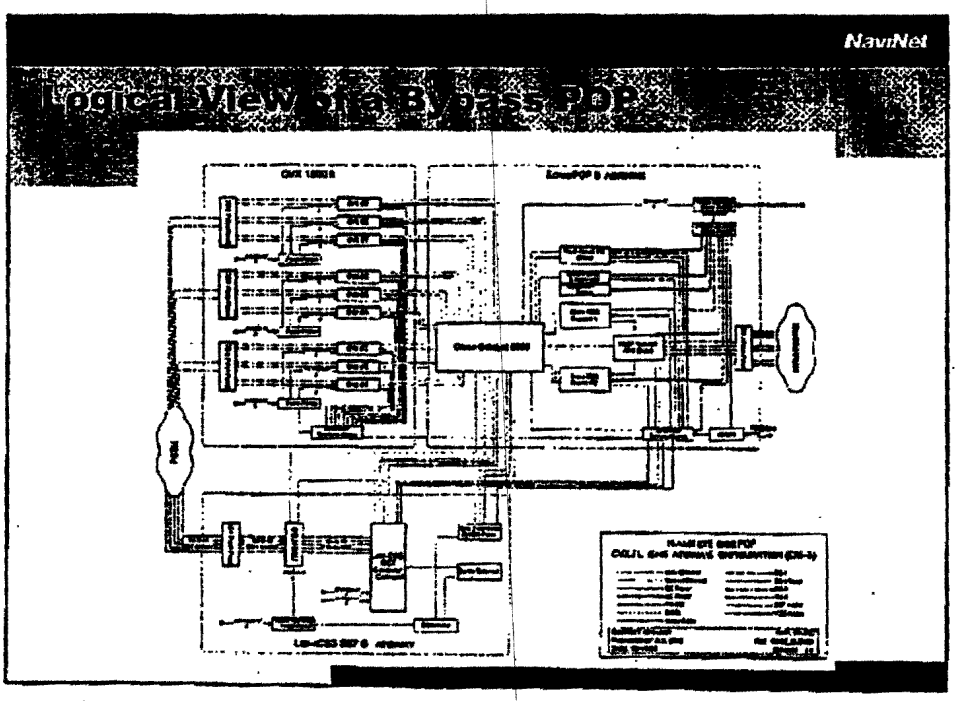
NaviNet U.S. Major Market Online Coverage

- Current Coverage 79%


NaviNet
NaviNet Bypass Deployment A: SS7 Trunks, A-Links
CLEC Premises
ILEC End Office
IMT
ILEC End Office
Tandem
CLEC Switch
RAS
IMT
Ethernet
A-Links
A-Links
A-Links
Signaling Gateway
SS7 Network
A-Links


NaviNet
NaviNet Bypass Deployment B and B-: SS7 Trunks From Egress Switch
(A-Links and F-Links)
ILEC End Office
CLEC Premises
ILEC End Office
Tandem
CLEC Switch
IMTs
RAS
Ethernet
A-Links
A-Links
A-Links
B': F-Links
Signaling Gateway
A-Links


NaviNet
NaviNet Bypass Deployment
Tier 1 Point Egress Switch
ILEC End Office
CLEC Premises
ILEC End Office
Tandem
CLEC Switch
T1s
DS3s
RAS
A-Links
A-Links
A-Links
Signaling Gateway
Ethernet


NaviNet
Logical View of a Bypass POP

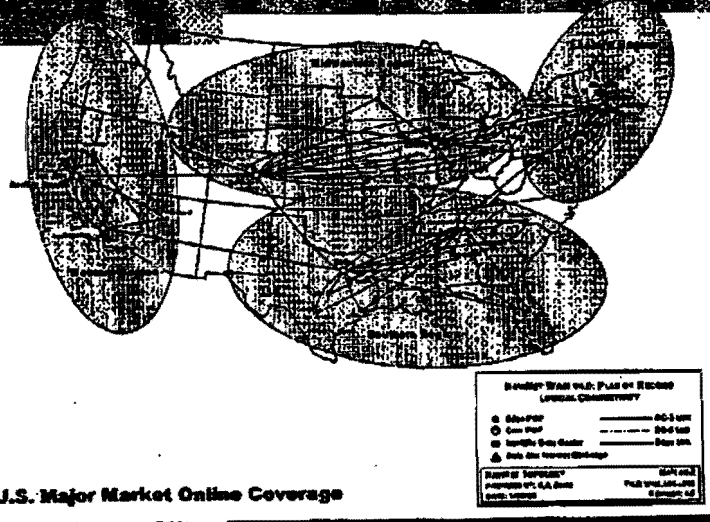
NavNet

Call Routing: LNP

- IN/AIN methods were non-starters
- We use 1 NPA-NXX for the LRN
- Port a block from each of CLEC's NPA-NXXs
- Port most of LRN NXX back to CLEC
- In some cases, dedicated NXXs

NavNet

IP WAN Architecture

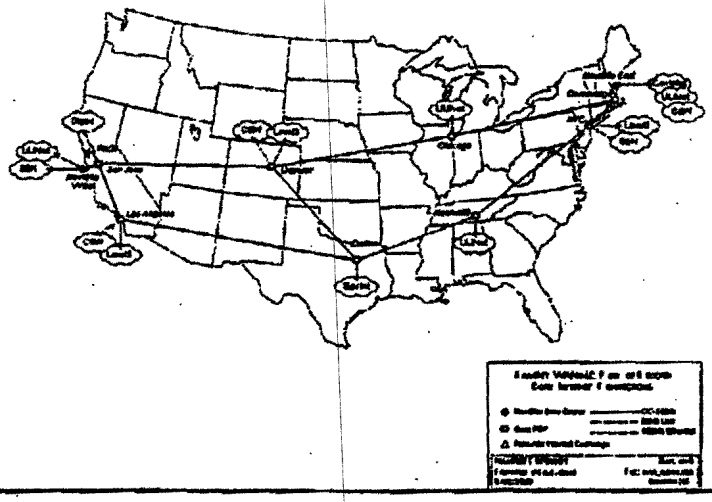


NavNet U.S. Major Market Online Coverage

- Current Coverage 79%

NaviNet

Internet Architecture



NaviNet

Switch Type - Advantages - Drawbacks

- Reduced Costs
  - No PRIs
  - Fewer, higher capacity POPs to build, connect, and operate
- Improved Quality
  - More granular capacity management
  - Fewer switches in call path

NaviNet

Switch Bypass Advantages: Reduced Costs

- PRIs:
  - $400 to $1000/mo. = $17 - $43/DS0/month
  - If changes in recip comp, PRIs could go as high as $2000/month = $87/DS0/month
- IMTs (typically DS3 over SONET or IXC)
  - $0 - $15,000/mo. = $0 - $22/DS0/month
  - Not sensitive to recip comp legislation
  - Recip comp as added revenue

NaviNet

Switch Bypass Advantages: Capacity Management

- PRIs: You must rely on CLEC to
  - trunk to right tanderns for your business plan
  - manage capacity of IMTs and of voice switch
- Bypass
  - IMTs not shared with voice customers
  - Set of unique NPA-NXX-LXXXs for each ISP
    - Enables enforcement of capacity control policy...
    - ...which enables meaningful SLAs
  - No line side switch capacity to manage
  - End office trunking

NaviNet

Switch Bypass Challenges - Overview

- Capacity management challenges
- Cultural and skill set challenge of "convergence" technologies
- Additional costs

NaviNet

Switch Bypass Challenges - Capacity Management

- Idle capacity
  - IMTs
  - Remote Access Servers
  - No DS0 grooming
- Telco delivery times and "Internet Time"
- ...made worse by People Vs. Modems
- ILEC requirements for adding capacity

NaviNet

Switch Bypass Challenges - "Convergence" culture shock

- Telco delivery times and "Internet Time"
- Skill sets: PSTN/SS7/IP/Internet routing/WAN design/CLEC/ISP/NSP
- Differing network management philosophies

NaviNet

Switch Bypass Challenges - Additional Costs

- Idle capacity
  - IMTs
  - RAS ports
- Switch bypass gateways
- Administrative overhead

NavNet

Ideal Switch Bypass Deployment

- big, Big, BIG, BIG, **BIG**
  - Lots of end users, e.g., wholesale provider
  - Nation-wide presence
  - Lots of interconnection agreements with many ILECs
- Ideal Interconnect Agreement
  - Single point of interconnection, OC48
  - Costs of trunks covered by ILEC (with low/no inbound termination fee)
  - Bill and Keep
- NPA-NXXs providing ubiquitous coverage

NavNet

Value Added Services Enabled by SS7

- Now that you've got an SS7 capable IP network . . .
  - Internet Call Waiting
  - Overflow routing
  - PC-to-PC VoIP
  - PC-to-Phone VoIP
  - IN/AIN integration

Jim Winkleman
CTO and VP Engineering
NaviNet, Inc.

Switch Bypass Solutions in the Real World

September 14, 1999
Seattle, WA
Telcordia ITESF-10

NaviNet's Business Goal: July/97

- Wholesale dial-up networking provider to ISPs
- Lowest cost basis, highest quality dial network
- NaviNet is a wholly-owned subsidiary of CMGI (2nd infrastructure company)

Strategy

- Rapidly build nationwide network using CLEC Partner Program
- Focus on wholesale business model
- Implement new dial architecture using emerging technologies

Dial Architecture

- "SuperPOP" call aggregation model
- Highly robust WAN with distributed Internet access
- Switch bypass technology
  - Eliminates PRIs
  - Increases capacity control
  - Dedicated IMT resources
  - Reduces strain on PSTN

Current Deployment Status

90,000 ports

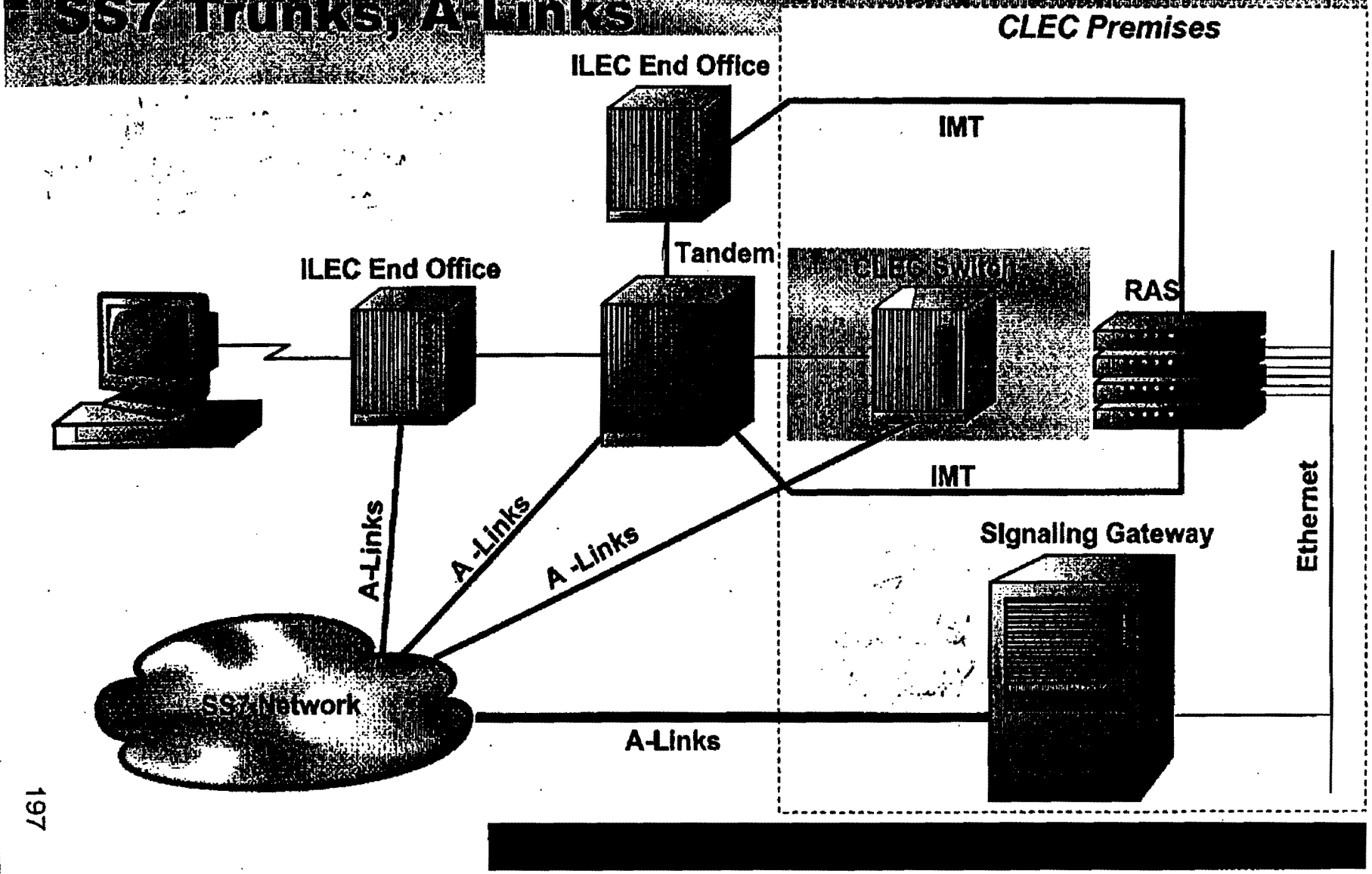
- Ten POPs cover 45% of potential U.S. Internet subscribers
- Initial deployment of ~ 6,000 to 12,000 ports per POP
- Target: 75% coverage by EOY '99

≥ 150,000 ports

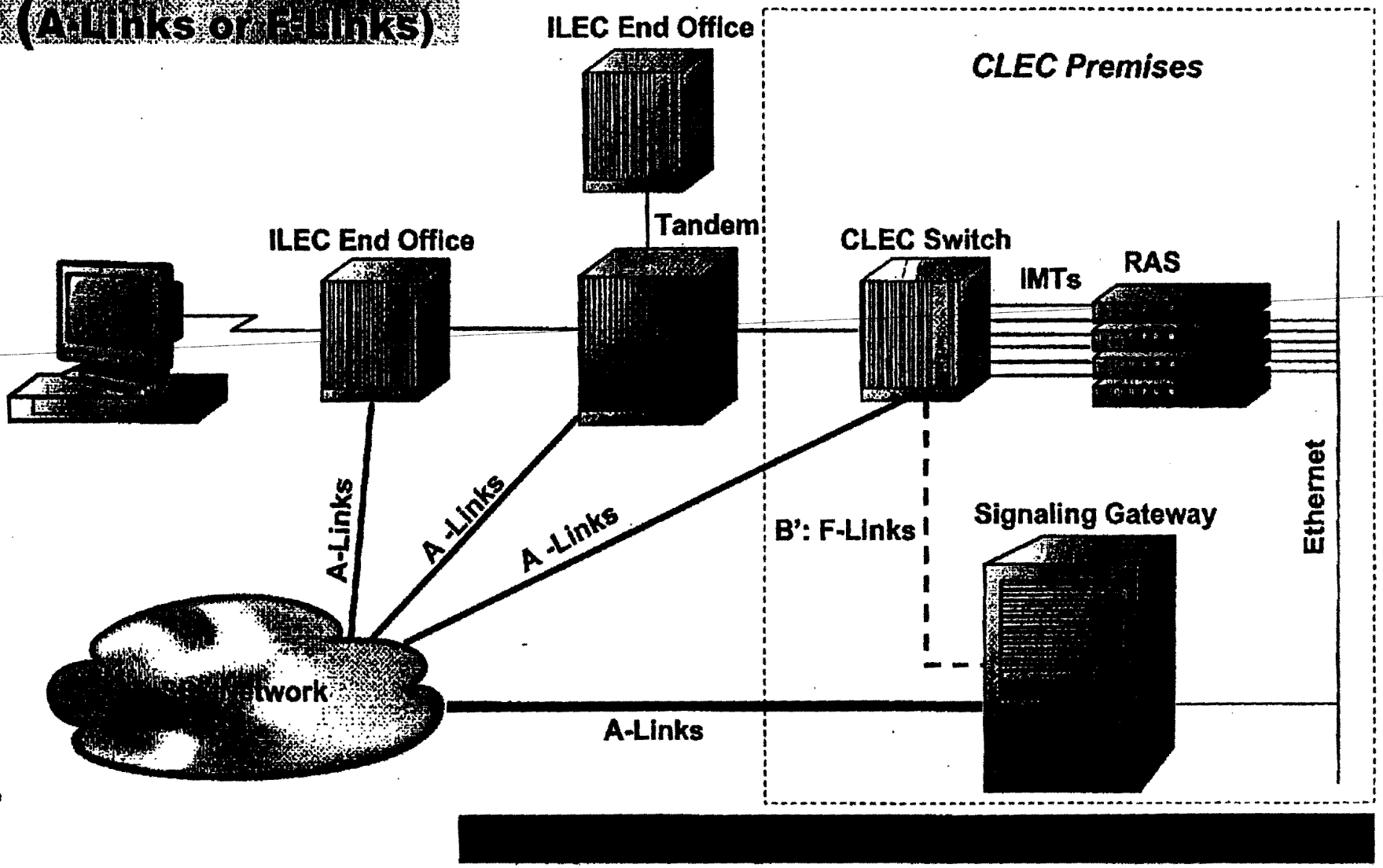
What We've Learned

- Convergence technology challenges:
  - Circuit/packet technology "gap"
  - Differing network management philosophies
  - Differing product development strategies
  - Differing cultures
- CLEC/ILEC coordination obstacles
- Bypass technology is no Silver Bullet

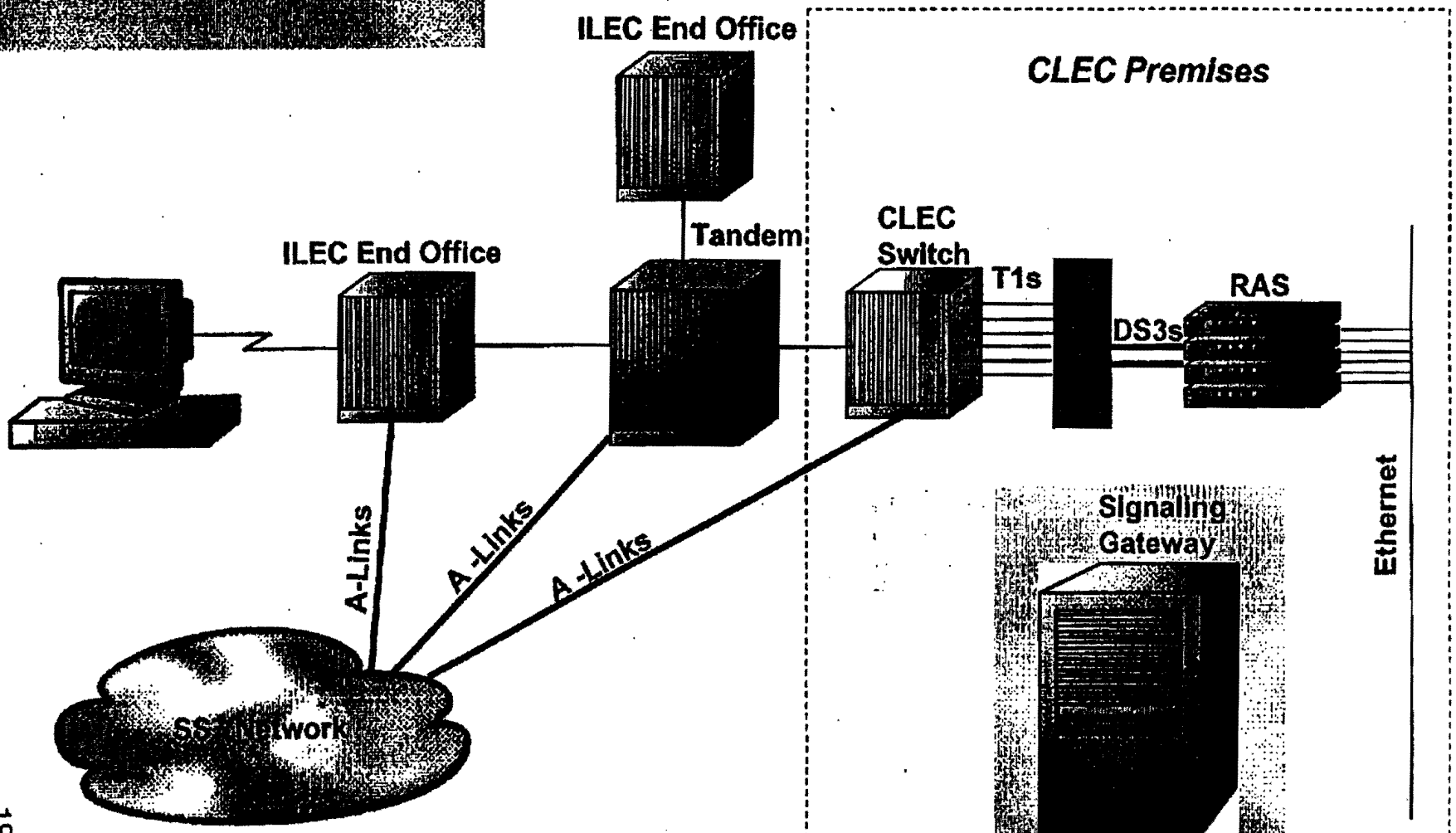
NaviNet Bypass Deployment A: SS7 Trunks, A-Links



NaviNet Bypass Deployment B and B': SS7 Trunks From Egress Switch (A-Links or F-Links)



NaviNet Bypass Deployment Options T1s From Egress Switch



Call Routing: LNP

- IN/AIN methods were non-starters
- We use 1 NPA-NXX for the LRN (Local Routing Number)
- Port a block from each of CLEC's NPA-NXXs (Why? Port Block then report back to CLEC?)
- Port most of LRN NXX back to CLEC
- In some cases, dedicated NXXs

Capacity Growth

- Getting initial IMTs from each tandem
- Getting *enough* IMTs -- ILEC capacity forecasts
- "Use 'em or lose 'em"
- Adding End Office trunking – DGIS p 557

Capacity Management: PRIs vs SS7

- PRIs:
  - CLEC must have IMTs to right tandems
  - NaviNet must trust CLEC to manage capacity of IMTs and of switch
- Bypass -- no shared IMTs
- Set of unique NPA-NXX-XXXXs for each ISP
  - Enables enforcement of capacity control policy...
  - ...which enables meaningful SLAs

Capacity Management: Downside to Bypass

- More elements to manage
- Instead of one huge hunt group aggregating traffic, less efficient trunk groups are terminated from discrete tandems and end offices

Cost Considerations

- PRIs:
  - $400 to $1000/mo. = $17 - $43/DS0/mo.
  - If changes in recip comp, $2000 = $87/DS0/mo.
- IMTs (typically DS3 over SONET or IXC)
  - $0 - $15,000/mo. = $0 - $22/DS0/mo.
  - Recip comp
  - Downside: initial idle capacity, esp. IXC DS3s
  - CLECs not often economical in carrier choice

↳ CLECs not as good as NNet at getting IXC deals

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip -5

PARTY: AT&T Communications of the Southern States, Inc.
MediaOne Florida Telecommunications, Inc.
Allegiance Telecom, Inc.

DESCRIPTION:

1. Responses to Staff's First Set of Interrogatories

PROFFERING PARTY: STAFF

I.D. # Stip-5

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 000075-TP EXHIBIT NO. 5
COMPANY/
WITNESS: FPSC Staff
DATE: 3-28-01

RUTLEDGE, ECENIA, PURNELL & HOFFMAN

PROFESSIONAL ASSOCIATION
ATTORNEYS AND COUNSELORS AT LAW

STEPHEN A. ECENIA
JOHN R. ELLIS
KENNETH A. HOFFMAN
THOMAS W. KONRAD
MICHAEL G. MAIDA

POST OFFICE BOX 551, 32302-0551
215 SOUTH MONROE STREET, SUITE 420
TALLAHASSEE, FLORIDA 32301-1841

TELEPHONE (850) 681-6788
TELECOPIER (850) 681-6515

J. STEPHEN MENTON
R. DAVID PRESCOTT
HAROLD F. X. PURNELL
GARY R. RUTLEDGE

GOVERNMENTAL CONSULTANTS
M. LANE STEPHENS

February 21, 2001

Ms. Blanca S. Bayo, Director
Division of Records and Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Betty Easley Conference Center, Room 110
Tallahassee, Florida 32399-0850

HAND DELIVERY

Re: Docket No. 000075-TP

Dear Ms. Bayo:

Enclosed herewith for filing in the above-referenced docket on behalf of MediaOne Florida Telecommunications, Inc., d/b/a AT&T Broadband Florida Telecommunications, Inc. and d/b/a AT&T Digital Phone ("MediaOne"), AT&T Communications of the Southern States, Inc. ("AT&T") and Allegiance Telecom, Inc. ("Allegiance") are the following documents:

1. Original and one copy of AT&T's Notice of Service of Responses to Commission Staff's First Set of Interrogatories;

2. Original and one copy of AT&T's Notice of Service of Responses to Commission Staff's First Set of Requests for Production of Documents;

3. Original and one copy of MediaOne's Notice of Service of Responses to Commission Staff's First Set of Interrogatories; and

4. Original and one copy of Allegiance's First Set of Interrogatories.

Please acknowledge receipt of these documents by stamping the extra copy of this letter "filed" and returning the copy to me.

Thank you for your assistance with this filing.

Sincerely,

Martin P. McDonnell

MPM/rl
Enclosures
cc: All Parties of Record

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996.	)))))	Docket No. 000075-TP

AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S RESPONSES TO COMMISSION STAFF'S FIRST SET OF INTERROGATORIES

AT&T Communications of the Southern States, Inc. ("AT&T") hereby submits its Responses to the First Set of Interrogatories served by Commission Staff ("Commission").

1. Please refer to the direct testimony of BellSouth witness David P. Scollard, page 5, beginning on line 13, witness Scollard contends that ALECs should be required to provide BellSouth with ISP telephone numbers.

a. Do each of the companies sponsoring Lee Selwyn's testimony know which numbers it provides that are ISP numbers?

Response:

No. AT&T does not have the necessary information to determine all of the numbers that are being used by its customers to provide dial-up access to an ISP.

b. If the response to (a) is negative, how would such information be obtained if the Commission were to require it?

Response:

As Dr. Lee L. Selwyn testified to in his prefiled direct testimony, pages 39 through 46, ISP-bound traffic should not be singled out for discriminatory treatment. Therefore, AT&T does not believe that the Commission should require AT&T to obtain the information. Also, as stated in Dr. Selwyn's prefiled direct testimony, there is no practical means for reliably differentiating ISP-bound calls from other local voice and data calls. Such information would be difficult to provide for companies that are serving thousands of business customers. The ALECs do not always know that a particular business customer is providing dial-up access as an ISP.

2. Please refer to the rebuttal testimony of BellSouth witness William Taylor, page 24, beginning at line 23, where he states ALECs build switches to service ISPs at a concentration ratio of 1:1. Do you agree or disagree with this statement? Please explain.

Response:

Some, but not necessarily all, ALEC-supplied local exchange service to ISPs is engineered for non-blocking performance, including the use of 1:1 line-trunk concentration ratios. However, where the ALEC serves a mix of ISP and non-ISP subscribers, the overall concentration ratio would likely be lower, e.g., 2:1 or 4:1. ILECs also serve a mix of customers with varying levels of inward calling volumes, and, like ALECs, engineer their switches with respect to the overall mix, and not the characteristics of individual customers.

3. Please refer to the rebuttal testimony of BellSouth witness William Taylor, page 51, beginning at line 9, where he states that ALECs possibly send a share of the reciprocal compensation revenues they receive to ISPs.

(a) Do any of the companies sponsoring witness Lee Selwyn's testimony share reciprocal compensation revenues with ISPs?

Response:

AT&T does not.

(b) Do any of the companies sponsoring Lee Selwyn's testimony charge a lower rate to an ISP for a service than it charges to other non-ISP customers for comparable service?

Response:

AT&T does not.

4. In the direct testimony of Lee Selwyn, page 7, line 23, and again, on page 40, he discusses "ordinary" traffic.

(a) Please define the word "ordinary" in the context it is used in the testimony?

Response:

Dr. Selwyn uses the word "ordinary" therein simply to refer to non-ISP traffic, i.e., calls conveyed on the public switched telephone network (PSTN) between two end users, neither of which is an ISP.

(b) Is there any type of traffic besides ISP-bound traffic that would not be considered ordinary?

Response:

No, not as Dr. Selwyn is using the term in his testimony. Clearly different types of customers exhibit different types of traffic characteristics, some of which may closely resemble those typical of ISPs.

(c) If the answer to (b) is affirmative, please describe such traffic, and explain why it should not be considered ordinary.

Response:

See response to part (b).

(d) How would the traffic described in (b) and (c) be factored into any mechanism used to separate ISP traffic from "ordinary" traffic, should the Commission determine that is appropriate to do so?

See response to part (b).

5. Please refer to the direct testimony of Lee Selwyn, page 24, Table 1. The table contains a calculation that is based on intrastate switched access charges. The ILECs contend that Internet traffic is interstate switched access.

(a) Why does witness Selwyn believe it is appropriate to use intrastate switched access rates instead of interstate switched access rates in the calculation?

Response:

Dr. Selwyn does not believe that switched access charges of any kind, either intrastate or interstate, are appropriate to apply to calls delivered by ILECs to ISPs (see pages 19-23 of Dr. Selwyn's direct testimony). Dr. Selwyn used BellSouth-Florida's intrastate switched access rates in his illustrative calculation on the presumption that, if the Commission determined (per Issue No. 1 in this proceeding) that it had jurisdiction to adopt an intercarrier compensation mechanism for delivery of ISP-bound traffic, then if it elected to apply switched access charges to ISP-bound traffic, it would apply Commission approved intrastate switched access rates such as the BellSouth-Florida rates used in Table 1 of Dr. Selwyn's prefiled direct testimony.

(b) Please provide an additional table 1 using interstate switched access charges.

Response:

The attached Table 1 calculates the potential impact on Internet users of the application of BellSouth's interstate switched access rates (from Tariff FCC No. 1) to ISP-bound calls. As shown

therein, under that scenario and assuming 1500 minutes of Internet use per subscriber per month, the total monthly charges paid by the ISP and potentially flowed through to subscribers, amounts to $8.32.

6. In the direct testimony of Lee Selwyn, page 26, line 7, he discusses his belief that an ISP call "terminates" in the sense of the FCC rules. To which specific rule is he referring?

Response:

Dr. Selwyn is referring to 47 C.F.R. 51.701(d), which states the following:

Termination:

> For purposes of this subpart termination is the switching of local telecommunications traffic at the terminating carrier's end office switch, or equivalent facility, and delivery of such traffic to the called parties premises.

This rule is located within subpart H, "Reciprocal Compensation for the Transport and Termination of Local Communications Traffic." It was adopted in the FCC's Local Competition Order, *see in the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket Nos. 96-98 and 95-185, *First Report and Order*, released August 8, 1996, 11th FCC Rcd. 15499, 16015, and 16228.

7. If the FCC issues an order that is permissive with regard to any mechanism for ISP traffic compensation, that is, an order which allows states to determine how termination of ISP traffic should be compensated, what action do you believe this Commission should take?

Response:

The Commission should determine that ISP-bound traffic is no different that voice traffic and treat it the same for reciprocal compensation purposes. The rates coming out of Commission Docket No. 990649-TP should be used to determine the appropriate reciprocal compensation rates for both BellSouth and the ALECs. These same rates should be used for all ILECs until different rates are established in the upcoming GTE and Sprint unbundled network element cost cases. ALECs and ILECs should still be free to establish different rates through negotiations, if they so choose.

AT&T\at&t.staff.inter

Florida PSC Docket No. 000075-TP
AT&T Response to Staff RFI 5-b (Attachment)
Table 1

Calculation of Potential Impact on Internet Users
of Application of BellSouth's Switched Access Charges
to ISP-bound calls: Using BellSouth FCC Tariff No. 1 (Interstate Switched Access)

Average monthly connect time of Internet user, hours		25
Average duration of Internet calls, minutes		30
Total minutes per month:		1500
BellSouth-Florida's Interstate SWAC: Source: BellSouth Tariff FCC No. 1		
Local Switching LS2 (Feature Groups C and D): Per access minute	$	0.002244
Common trunk port service, per trunk per access minute	$	0.000800
Tandem switching, per access minute:	$	0.001177
Interconnection charge, per access minute: (Tariff indicates a zero rate)	$	-
Tandem switched transport, per access minute:		
Facilities Termination (fixed charge) per access minute of use:	$	0.000176
Per Mile per access minute of use:	$	0.000023
Assumed transport mileage		50
Total monthly charges if SWAC applied to ISP-bound traffic terminated by CLEC:		
LS2 and common trunk charges	$	4.57
Interconnection charge	$	-
Tandem switching charges	$	1.77
Tandem transport charges	$	1.99
Total monthly charges:	$	8.32
Note: This assumes that call is handed off to a CLEC for termination, so it includes (only) originating local switching, trunk port, transport and tandem switching elements.		

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996.	)))))	Docket No. 000075-TP

MEDIAONE FLORIDA TELECOMMUNICATIONS, INC.'S RESPONSES TO COMMISSION STAFF'S FIRST SET OF INTERROGATORIES

MediaOne Florida Telecommunications, Inc. ("MediaOne") hereby submits its Responses to the First Set of Interrogatories served by Commission Staff ("Commission").

1. Please refer to the direct testimony of BellSouth witness David P. Scollard, page 5, beginning on line 13, witness Scollard contends that ALECs should be required to provide BellSouth with ISP telephone numbers.

a. Do each of the companies sponsoring Lee Selwyn's testimony know which numbers it provides that are ISP numbers?

Response:

Yes. MediaOne Florida is in the process of providing telephone numbers to BellSouth, so it may determine with greater accuracy the calls that BellSouth customers are making to MediaOne customers who are ISPs.

b. If the response to (a) is negative, how would such information be obtained if the Commission were to require it?

Response:

See response to (a) above.

2. Please refer to the rebuttal testimony of BellSouth witness William Taylor, page 51, beginning at line 9, where he states that ALECs possibly send a share of the reciprocal compensation revenues they receive to ISPs.

(a) Do any of the companies sponsoring witness Lee Selwyn's testimony share reciprocal compensation revenues with ISPs?

Response:

MediaOne does not.

(b) Do any of the companies sponsoring Lee Selwyn's testimony charge a lower rate to an ISP for a service than it charges to other non-ISP customers for comparable service?

Response:

MediaOne does not.

AT&T\MediaOne.staffinter

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996.	)))))	Docket No. 000075-TP

ALLEGIANCE TELECOM OF FLORIDA, INC.'S RESPONSES TO COMMISSION STAFF'S FIRST SET OF INTERROGATORIES

Allegiance Telecom of Florida, Inc. ("Allegiance") hereby submits its Responses to the First Set of Interrogatories served by Commission Staff ("Commission").

1. Please refer to the direct testimony of BellSouth witness David P. Scollard, page 5, beginning on line 13, witness Scollard contends that ALECs should be required to provide BellSouth with ISP telephone numbers.

a. Do each of the companies sponsoring Lee Selwyn's testimony know which numbers it provides that are ISP numbers?

Response:

Allegiance Telecom of Florida, Inc. does not necessarily know which numbers it provides that are "ISP numbers." Not all telephone numbers to which ISPs subscribe may be used for data transmission. Allegiance does not require customers to disclose the purposes for which their lines are used. Allegiance also does not require customers to disclose whether individual telephone numbers are used for voice or data transmissions.

Respondent: Dana Crowne, Senior Vice President and Chief Technology Officer, Allegiance Telecom, Inc.

b. If the response to (a) is negative, how would such information be obtained if the Commission were to require it?

Response:

As discussed in the Direct Testimony of Lee L. Selwyn, pages 39-46, ISP-bound traffic should not be singled out for discriminatory treatment. Thus, Allegiance Telecom of Florida, Inc. does not believe that it is appropriate for the Commission to require carriers to obtain this information. As Dr. Selwyn's Direct Testimony also discusses, pages 46-51, there is no practical means for reliably differentiating ISP-bound calls from other local voice and data calls.

Respondent: Mary C. Albert, Vice President, Regulatory and Interconnection, Allegiance Telecom, Inc.

2. Please refer to the rebuttal testimony of BellSouth witness William Taylor, page 51, beginning at line 9, where he states that ALECs possibly send a share of the reciprocal compensation revenues they receive to ISPs.

(a) Do any of the companies sponsoring witness Lee Selwyn's testimony share reciprocal compensation revenues with ISPs?

Response:

Allegiance Telecom of Florida, Inc. does not.

Respondent: Dana Crowne, Senior Vice President and Chief Technology Officer, Allegiance Telecom, Inc.

(b) Do any of the companies sponsoring Lee Selwyn's testimony charge a lower rate to an ISP for a service than it charges to other non-ISP customers for comparable service?

Response:

Allegiance Telecom of Florida, Inc. does not. Allegiance offers volume and term discounts to all customers. Any customer, ISP or non-ISP, that makes the volume and/or term commitments is eligible for the discount.

Respondent: Chris Malinowski, Vice President, Wholesale Accounts, Allegiance Telecom, Inc.

AT&T\Allegiance.staffinter

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 6

PARTY: Global NAPs, Inc.

DESCRIPTION:

1. Global NAPs' responses to Staff's First Set of Interrogatories

PROFFERING PARTY: STAFF

I.D. # Stip-6

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 000075-TP 6
COMPANY/
WITNESS: FPSC Staff
DATE: 3-7+8-01

Before the
FLORIDA PUBLIC SERVICE COMMISSION

In re:	
Investigation into Appropriate Methods to Compensate Carriers for Exchange of Traffic Subject to Section 251 of the Telecommunications Act of 1996	Docket No.: 000075-TP

GLOBAL NAPs, INC.'S RESPONSES TO INTERROGATORIES FROM PSC STAFF

Global NAPs' answers to interrogatories from the PSC staff are set out below. All answers below are subject to, and should not be construed in any manner as a waiver of, Global NAPs' objections to Staff's interrogatories dated February 12, 2001.

Interrogatory:

1. Please refer to the direct testimony of BellSouth witness David P. Scollard, page 5, beginning at line 13. Witness Scollard contends that ALECs should be required to provide BellSouth with ISP telephone numbers.

   a. Do each of the companies sponsoring witness Lee Selwyn's testimony know which numbers it provides that are ISP numbers?

Global NAPs does not require its customers to declare what business the customers are in as a condition of providing service. As Global NAPs understands it, moreover, some entities are in multiple lines of business. Consequently, Global NAPs does not know the answer to this question.

That said, Global NAPs believes that it would be a very bad policy decision for the Commission to in any way distinguish "ISP-bound calls" from other local calls. In this regard, Global NAPs respectfully refers the staff to Global NAPs' pending reconsideration filing in its recent arbitration with BellSouth. There Global NAPs explained that if the staff is concerned with the prospect that ISP-bound calls might be longer, on average, than other local calls, the most logical solution is to establish an "initial minute + subsequent minute" rate structure applicable to all local calls — which will automatically accommodate this phenomenon — as opposed to ghettoizing ISPs with respect to intercarrier compensation or otherwise.

Interrogatory:

1. Please refer to the direct testimony of BellSouth witness David P. Scollard, page 5, beginning at line 13. Witness Scollard contends that ALECs should be required to provide BellSouth with ISP telephone numbers.

   a. If the response to (a) is negative, how would such information be obtained, if the Commission were to require it?

Assuming that it would be lawful to treat ISPs differently from other customers for this purpose, which is questionable on various grounds, presumably the Commission could direct LECs to ask customers to identify themselves as ISPs when requesting service. Neither Global NAPs nor any other carrier, however, could be expected to police such a self-identification in any particularly effective manner.

Interrogatory:

2. Please refer to the rebuttal testimony of BellSouth witness William Taylor, page 51, beginning at line 9, where he states that ALECs possibly send a share of the reciprocal compensation revenues with ISPs.

   a. Do any of the companies sponsoring witness Lee Selwyn's testimony share reciprocal compensation revenues with ISPs?

Global NAPs views its marketing strategies with respect to ISPs and all other classes of customers as highly confidential and so cannot either confirm or deny how it deals with ISPs in response to this question. Global NAPs will be happy to provide an answer to this question to the staff under appropriate confidentiality arrangements. In no event should any information regarding Global NAPs' marketing strategies, whether with respect to ISPs or otherwise, be shared with any BellSouth employee.

Please contact counsel for Global NAPs to make appropriate confidentiality arrangements.

Interrogatory:

2. Please refer to the rebuttal testimony of BellSouth witness William Taylor, page 51, beginning at line 9, where he states that ALECs possibly send a share of the reciprocal compensation revenues with ISPs.

   b. Do any of the companies sponsoring witness Lee Selwyn's testimony share a lower rate to an ISP for a service than it charges to other non-ISP customers for comparable services?

Global NAPs views its marketing strategies with respect to ISPs and all other classes of customers as highly confidential and so cannot either confirm or deny how it deals with ISPs in response to this question. Global NAPs will be happy to provide an answer to this question to

the staff under appropriate confidentiality arrangements. In no event should any information regarding Global NAPs' marketing strategies, whether with respect to ISPs or otherwise, be shared with any BellSouth employee.

Please contact counsel for Global NAPs to make appropriate confidentiality arrangements.

Respectfully submitted,

GLOBAL NAPS, INC.

By: _____

Christopher W. Savage
COLE, RAYWID & BRAVERMAN, L.L.P.
1919 Pennsylvania Avenue, N.W., Suite 200
Washington, D.C. 20006
202-659-9750

Jon C. Moyle, Jr.
Fla. Bar No. 727016
Cathy M. Sellers
Fla. Bar No. 0784958
Moyle Flanigan Katz Raymond & Sheehan, P.A.
118 North Gadsden Street
Tallahassee, FL 32301
(850) 681-3828

Its Attorneys

Dated: February 22, 2001

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Responses to Interrogatories from PSC Staff has been sent by U. S. Mail to Felicia Banks, Esquire, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, FL 32399-0850 this 22nd day of February, 2001.

Cathy M. Sellers

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 7

PARTY: Verizon Florida Inc.

DESCRIPTION:

1. Verizon's responses to AT&T's First Set of Interrogatories and Request for Production of Documents, and revised responses to AT&T's First Set of Interrogatories.

PROFFERING PARTY: STAFF

I.D. # Stip-7

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 000075-TP EXHIBIT NO 7
COMPANY/ WITNESS. FPSC Staff
DATE: 3-18-10

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996	Docket No. 000075-TP Filed: December 18, 2000

NOTICE OF SERVICE OF VERIZON FLORIDA INC.'S RESPONSES AND OBJECTIONS TO AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S FIRST SET OF INTERROGATORIES

NOTICE IS HEREBY GIVEN that a true and correct copy of Verizon Florida Inc.'s Responses and Objections to AT&T Communications of the Southern States, Inc.'s (AT&T) First Set of Interrogatories, which were legally propounded by AT&T on November 27, 2000, was sent via overnight delivery on December 15, 2000, to Kenneth A. Hoffman, Esq., Rutledge, Ecenia, Purnell & Hoffman, P.A., 215 South Monroe Street, Suite 420, Tallahassee, FL 32301-1841.

The original and one copy of this Notice were also sent via overnight delivery on December 15, 2000 to the Director, Division of Records & Reporting, at the Commission. Further service on other parties of record is as set forth on the Certificate of Service, appended hereto.

Respectfully submitted on December 18, 2000.

By: _____

Kimberly Caswell
Post Office Box 110, FLTC0007
Tampa, Florida 33601
Telephone: 813-483-2617

Attorney for Verizon Florida Inc.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996.	))))	Docket No. 000075-TP Filed: December 18, 2000

VERIZON FLORIDA INC.'S OBJECTIONS AND RESPONSES TO AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S FIRST SET OF INTERROGATORIES (NOS. 1-7)

1. Please state the name, address and position (job title) with Verizon of each person providing responses to these Interrogatories.

Response:

Interrogatory No. 7
Richard Burkett
State Access & Ancillary Services Pricing
600 Hidden Ridge
Irving, TX

2. Please provide the following data for your retail access lines for the end of each year, 1996 through 1999. If the monthly rates for a given service listed below vary by exchange (e.g., due to rate group classifications), please break down the access line count for the service by each such distinct rate.

a. Primary residence lines - flat rate.
b. Primary residence lines - measured rate.
c. Additional (non-primary) residence lines. Please break down by type of service (e.g., measured rate).
d. Single-line business lines - measured rate (untimed).
e. Single-line business lines - measured rate (timed).

Response:

Verizon objects to this Interrogatory because the information requested is not relevant to any issue in this proceeding and the request is not designed to lead to the discovery of relevant and otherwise admissible material. Verizon's retail access line information is not a relevant consideration in resolving the generic

reciprocal compensation issues in this docket. In addition, Verizon objects to producing information for the time period from 1996 through 1999, as doing so would be unduly burdensome.

3. Provide the following usage and revenue data for each year from 1996-1999 for your Florida service territory:

Total local minutes. For any year in which you have excluded minutes associated with ISP-bound calls from "total local minutes", please so state and separately provide the quantity of (non-toll) minutes associated with ISP-bound calls.

Total local messages (associated with, e.g., untimed business measured rate service). For any year in which you have excluded messages associated with ISP-bound calls from "total local messages", please so state and separately provide the quantity of messages associated with ISP-bound calls.

Response:

Verizon objects to this Interrogatory because the information requested is not relevant to any issue in this proceeding and the request is not designed to lead to the discovery of relevant and otherwise admissible material. Verizon's usage and revenue data are not a relevant consideration in resolving the generic reciprocal compensation issues in this docket. In addition, Verizon objects to producing information for the time period from 1996 through 1999, as doing so would be unduly burdensome.

4. Provide the following usage and revenue information for the year 1999 (or most recent year available), for primary residence lines - measured rate.

a. Total billed local minutes.
b. Total unbilled local minutes (i.e., minutes included within end users' call allowances so that no per-call or per-minute charges apply).
c. Total revenues generated from billed minutes (i.e., generated by local usage charges applied on a per-call or per-minute basis).

Response:

Verizon objects to this Interrogatory because the information requested is not relevant to any issue in this proceeding and the request is not designed to lead to the discovery of relevant and otherwise admissible material. Verizon's usage and

revenue data are not a relevant consideration in resolving the generic reciprocal compensation issues in this docket. In addition, Verizon objects because answering this request would be unduly burdensome. Verizon's financial reporting system does not track the information by the requested category (i.e., primary residence line), so Verizon cannot be required to produce such information.

5. Provide the following usage and revenue information for the year 1999 (or most recent year available), for additional residence lines - measured rate.

a. Total billed local minutes.
b. Total unbilled local minutes (i.e., minutes included within end users' call allowances so that no per-call or per-minute charges apply).
c. Total revenues generated from billed minutes (i.e., generated by local usage charges applied on a per-call or per-minute basis).

Response:

Verizon objects to this Interrogatory because the information requested is not relevant to any issue in this proceeding and the request is not designed to lead to the discovery of relevant and otherwise admissible material. Verizon's usage and revenue data are not a relevant consideration in resolving the generic reciprocal compensation issues in this docket. In addition, Verizon objects because answering this request would be unduly burdensome. Verizon's financial reporting system does not track the information by the requested category (i.e., additional residence line), so Verizon cannot be required to produce such information.

6. Provide the following usage and revenue information for the year 1999 (or most recent year available), for single-line business lines - measured rate (timed).

a. Total billed local minutes.
b. Total unbilled local minutes (i.e., minutes included within end users' call allowances so that no per-call or per-minute charges apply), if any.
c. Total revenues generated from billed minutes (i.e., generated by local usage charges applied on a per-call or per-minute basis).

Response:

Verizon objects to this Interrogatory because the information requested is not relevant to any issue in this proceeding and the request is not designed to lead to the discovery of relevant and otherwise admissible material. Verizon's usage and revenue data are not a relevant consideration in resolving the generic reciprocal compensation issues in this docket. In addition, Verizon objects because answering this request would be unduly burdensome. Verizon's financial reporting system does not track the information sought in the manner requested (i.e., by single-line business category).

7. At any time since January 1996, has Verizon attempted to separately identify and track ISP-bound calls originated over its end users' access lines? If the answer is yes, describe all such monitoring which Verizon has performed, and provide all traffic statistics which Verizon compiled therein concerning ISP-bound traffic.

Response:

The identification of ISP-bound calls requires that the called ISP number be known and that measurement capability exist and be active for the customers originating the calls. While measurement capability is present and active for customers, Verizon does not know the called ISP numbers. Therefore, Verizon is unable to identify and track ISP-bound calls.

VERIFICATION

STATE OF FLORIDA)
) ss.
COUNTY OF HILLSBOROUGH)

BEFORE ME, the undersigned authority, personally appeared Beverly Y. Menard, who deposed and stated that the answers to the First Set of Interrogatories (Nos.1-7) served on Verizon Florida Inc. by AT&T Communications of the Southern States, Inc. in Docket No. 000075-TP were prepared at her request and she is informed that the responses contained therein are true and correct to the best of her information and belief.

DATED at Tampa, Florida, this 15th day of December, 2000.

Beverly Y. Menard
Beverly Y. Menard

Sworn to and subscribed before me this 15th day of December, 2000.

Teresa Ann Scobie
Notary Public
State of Florida

OFFICIAL NOTARY SEAL
TERESA ANN SCOBIE
NOTARY PUBLIC STATE OF FLORIDA
COMMISSION NO. CC777388
MY COMMISSION EXP. OCT. 21,2002

Name Typed or Printed/Commission No.

My Commission Expires:

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996	Docket No. 000075-TP Filed: December 18, 2000

NOTICE OF SERVICE OF VERIZON FLORIDA INC.'S RESPONSES AND OBJECTIONS TO AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S FIRST SET OF REQUESTS FOR PRODUCTION OF DOCUMENTS

NOTICE IS HEREBY GIVEN that a true and correct copy of Verizon Florida Inc.'s Responses and Objections to AT&T Communications of the Southern States, Inc.'s (AT&T) First Set of Requests for Production of Documents, which were legally propounded by AT&T on November 27, 2000, was sent via overnight delivery on December 15, 2000, to Kenneth A. Hoffman, Esq., Rutledge, Ecenia, Purnell & Hoffman, P.A., 215 South Monroe Street, Suite 420, Tallahassee, FL 32301-1841.

The original and one copy of this Notice were also sent via overnight delivery on December 15, 2000 to the Director, Division of Records & Reporting, at the Commission. Further service on other parties of record is as set forth on the Certificate of Service, appended hereto.

Respectfully submitted on December 18, 2000.

By: _____

Kimberly Caswell
Post Office Box 110, FLTC0007
Tampa, Florida 33601
Telephone: 813-483-2617

Attorney for Verizon Florida Inc.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996.	))))	Docket No. 000075-TP Filed: December 18, 2000

VERIZON FLORIDA INC.'S OBJECTIONS AND RESPONSES TO AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S FIRST SET OF REQUESTS FOR PRODUCTION OF DOCUMENTS (NOS. 1-3)

1. Please provide the most recent cost study that you have filed with the Florida Public Service Commission in support of your retail basic exchange service rates. Please indicate the Florida Public Service Commission proceeding in which the study was submitted and the filing date.

Response:

Verizon objects to this request because it seeks information that is not relevant to any issue in this proceeding and it is not designed to lead to the discovery of any relevant and otherwise admissible information. Cost information about retail basic exchange rates is not relevant to resolution of generic reciprocal compensation matters. Verizon further objects to this request because it seeks confidential and proprietary information; and because producing the cost study would be unduly burdensome.

2. If you have any other cost studies for the provision of retail basic exchange service within your service territory that are more recent than that provided in response to Document Request No. 1, please provide all such studies.

Response:

Verizon makes the same objections to this request as it did in response to request number 1, above.

3. Provide a copy of each study, report, analysis or memorandum prepared by you or on your behalf which estimates or otherwise quantifies the costs of terminating ISP-bound traffic.

Response:

Verizon Florida Inc. has no responsive documents.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996	)))))	Docket No. 000075-TP Filed: January 16, 2001

NOTICE OF SERVICE OF VERIZON FLORIDA INC.'S REVISED RESPONSES AND OBJECTIONS TO AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S FIRST SET OF INTERROGATORIES

NOTICE IS HEREBY GIVEN that a true and correct copy of Verizon Florida Inc.'s Revised Responses and Objections to AT&T Communications of the Southern States, Inc.'s (AT&T) First Set of Interrogatories, which were legally propounded by AT&T on November 27, 2000, was sent via overnight delivery on January 15, 2001 to Kenneth A. Hoffman, Esq., Rutledge, Ecenia, Purnell & Hoffman, P.A., 215 South Monroe Street, Suite 420, Tallahassee, FL 32301-1841.

The original and one copy of this Notice were also sent via overnight delivery on January 15, 2001 to the Director, Division of Records & Reporting, at the Commission. Further service on other parties of record is as set forth on the Certificate of Service, appended hereto.

Respectfully submitted on January 16, 2001.

By: _____

Kimberly Caswell
Post Office Box 110, FLTC0007
Tampa, Florida 33601
Telephone: 813-483-2617

Attorney for Verizon Florida Inc.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996.	))))	Docket No. 000075-TP

VERIZON FLORIDA INC. S REVISED OBJECTIONS AND RESPONSES TO AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S FIRST SET OF INTERROGATORIES (NOS. 1-7)

INTERROGATORIES

1. Please state the name, address and position (job title) with Verizon of each person providing responses to these Interrogatories.

Response:

Elizabeth Werth (Response to No. 2.a. through 2.e.)
Specialist Market Analysis & Studies
600 Hidden Ridge
Irving, TX

Adolf Andrzejewski (Response to No. 3 through 6)
Regulatory Manager
One Verizon Way
Thousand Oaks, CA

Richard Burkett (Response to No. 7)
State Access & Ancillary Services Pricing
600 Hidden Ridge
Irving, TX

Howard Lee Jones (Response to No. 7)
Group Marketing Manager
600 Hidden Ridge
Irving, TX

2. Please provide the following data for your retail access lines for the end of each year, 1996 through 1999. If the monthly rates for a given service listed below vary by exchange (e.g., due to rate group classifications), please break down the access line count for the service by each such distinct rate.

a. Primary residence lines - flat rate.
b. Primary residence lines - measured rate.
c. Additional (non-primary) residence lines. Please break down by type of service (e.g., measured rate).
d. Single-line business lines - measured rate (untimed).
e. Single-line business lines - measured rate (timed).

Response:

Verizon Florida objects to this Interrogatory because it is not relevant to any issue in this proceeding and it is not designed to lead to the discovery of any relevant and otherwise admissible information.

Notwithstanding this objection, Verizon Florida provides the following access line information for the years ending 1998 and 1999 (Bates stamped pages 1 and 2). Data for the years 1996 and 1997 is not available.

a. Primary residential lines – flat rate: See attached schedule, column a.
b. Primary residential lines – measured rate: See attached schedule, column b.
c. Additional (non-primary) residence lines: See attached schedule, column c. Data for non-primary residential lines is available only in total. Verizon does not report non-primary residential lines as flat rate or measured.
d. Single-line business lines - measured rate (untimed). See attached schedule, column d.
e. Single-line business lines - measured rate (timed). See attached schedule, column e.

3. Provide the following usage and revenue data for each year from 1996-1999 for your Florida service territory.

Total local minutes. For any year in which you have excluded minutes associated with ISP-bound calls from "total local minutes", please so state and separately provide the quantity of (non-toll) minutes associated with ISP-bound calls.

Total local messages (associated with, e.g., untimed business measured rate service). For any year in which you have excluded messages associated with ISP-bound calls from "total local messages", please so state and separately provide the quantity of messages associated with ISP-bound calls.

Response:

Verizon Florida objects to this Interrogatory because it is not relevant to any issue in this proceeding and is not designed to lead to the discovery of any relevant and otherwise admissible information.

Notwithstanding this objection, Verizon Florida responds as follows:

Year	Booked Revenue	Booked MOUs
1999	$53,158,074.30	1,058,311,795
1998	$57,934,732.05	1,113,335,666

No ISP-bound usage was excluded. Verizon's financial reporting system does not track total number of local messages. Data for the years 1996 and 1997 is not available.

4. Provide the following usage and revenue information for the year 1999 (or most recent year available), for primary residence lines - measured rate.

   a. Total billed local minutes.
   b. Total unbilled local minutes (i.e., minutes included within end users' call allowances so that no per-call or per-minute charges apply).
   c. Total revenues generated from billed minutes (i.e., generated by local usage charges applied on a per-call or per-minute basis).

Response:

Verizon Florida objects to this Interrogatory because it is unduly burdensome and not relevant to any issue in this proceeding or designed to lead to the discovery of any relevant and otherwise admissible information.

Notwithstanding these objections, Verizon responds as follows: Verizon's financial reporting system does not track the information sought according to whether the residential line is primary or additional.

5. Provide the following usage and revenue information for the year 1999 (or most recent year available), for additional residence lines - measured rate.

a. Total billed local minutes.
b. Total unbilled local minutes (i.e., minutes included within end users' call allowances so that no per-call or per-minute charges apply).
c. Total revenues generated from billed minutes (i.e., generated by local usage charges applied on a per-call or per-minute basis).

Response:

Verizon Florida objects to this Interrogatory because it is unduly burdensome and not relevant to any issue in this proceeding or designed to lead to the discovery of any relevant and otherwise admissible information.

Notwithstanding these objections, Verizon responds as follows: Verizon's financial reporting system does not track the information sought according to whether the residential line is primary or additional.

6. Provide the following usage and revenue information for the year 1999 (or most recent year available), for single-line business lines - measured rate (timed).

a. Total billed local minutes.
b. Total unbilled local minutes (i.e., minutes included within end users' call allowances so that no per-call or per-minute charges apply), if any.
c. Total revenues generated from billed minutes (i.e., generated by local usage charges applied on a per-call or per-minute basis).

Response:

Verizon Florida objects to this Interrogatory because it is unduly burdensome and not relevant to any issue in this proceeding or designed to lead to the discovery of any relevant and otherwise admissible information.

Notwithstanding these objections, Verizon responds as follows: Verizon's financial reporting system does not track the information sought according to whether the business line is single or multi-line.

7. At any time since January 1996, has Verizon attempted to separately identify and track ISP-bound calls originated over its end users' access lines? If the answer is yes, describe all such monitoring which Verizon has performed, and provide all traffic statistics which Verizon compiled therein concerning ISP-bound traffic.

Response:

The identification of ISP-bound calls requires that the called ISP number be known and that measurement capability exist and be active for the customers originating the calls. While measurement capability is present and active for customers, Verizon does not know the called ISP numbers. Therefore, Verizon is unable to identify and track ISP-bound calls.

The Hewlett-Packard Company has, however, prepared studies that allow Verizon to estimate the call volume and average holding times for ISP-bound calls. These studies, which can be made available upon request, are:

(1) Internet Service Provider Switch Utilization Study in Southern California, written by Bob D'Eletto – Hewlett Packard Company, dated Oct. 18, 1997.

(2) ACCESS7 Network Study, prepared by Jim Baker – Hewlett Packard Company, dated Apr. 30, 1997.

(3) In addition, as described on page 13 of the Direct Testimony of Edward Beauvais, dated December 1, 2000, Verizon analyzed ISP traffic data provided by Coast-to-Coast, a CLEC in Michigan, in the 4th quarter of 1999. A copy of the Michigan data is also available upon request.

SERVICE COSTS
PRICING & REGULATORY SUPPORT
MARKET ANALYSIS

VERIZON FLORIDA'S RESPONSES TO
AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S
FIRST SET OF INTERROGATORIES
DOCKET NO. 000075-TP
REPONSE 2.
YEAR ENDING 1998

RATE GROUP	(a) TOTAL RESIDENTIAL LINES-FLAT	(b) TOTAL RESIDENTIAL LINES-MEASURED	(c) TOTAL NON-PRIMARY RESIDENTIAL LINES	(d) SINGLE-LINE BUSINESS LINES MEASURED UNTIMED	(e) SINGLE-LINE BUSINESS LINES MEASURED TIMED
1	4,899	1,146	138	130	12
2	23,380	5,604	880	2,224	100
3	182,983	25,518	10,877	21,302	506
4	279,906	25,325	19,643	18,827	880
5	1,010,366	65,779	88,478	195,310	4,124

SERVICE COSTS
PRICING & REGULATORY SPT.
MARKET ANALYSIS

VERIZON FLORIDA'S RESPONSES TO
AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S
FIRST SET OF INTERROGATORIES
DOCKET NO. 000075-TP
REPONSE 2.
YEAR ENDING 1999

RATE GROUP	(a) TOTAL RESIDENTIAL LINES-FLAT	(b) TOTAL RESIDENTIAL LINES-MEASURED	(c) TOTAL NON-PRIMARY RESIDENTIAL LINES	(d) SINGLE-LINE BUSINESS LINES MEASURED UNTIMED	(e) SINGLE-LINE BUSINESS LINES MEASURED TIMED
1	5,085	1,026	326	92	11
2	23,724	5,237	1,810	2,391	165
3	189,760	23,352	19,741	24,149	576
4	285,038	23,230	33,807	19,568	879
5	1,054,894	62,062	149,430	208,916	4,393

VERIFICATION

STATE OF FLORIDA)
) ss.
COUNTY OF HILLSBOROUGH)

BEFORE ME, the undersigned authority, personally appeared Beverly Y. Menard, who deposed and stated that the **revised** answers to the First Set of Interrogatories (Nos.1-7) served on Verizon Florida Inc. by AT&T Communications of the Southern States, Inc. in Docket No. 000075-TP were prepared at her request and she is informed that the responses contained therein are true and correct to the best of her information and belief.

DATED at Tampa, Florida, this 12th day of January, 2001.

Beverly Y. Menard
Beverly Y. Menard

Sworn to and subscribed before me this 12th day of January, 2001.

Teresa Ann Scobie
Notary Public
State of Florida

OFFICIAL NOTARY SEAL
TERESA ANN SCOBIE
NOTARY PUBLIC STATE OF FLORIDA
COMMISSION NO. CC777388
MY COMMISSION EXP. OCT. 21,2002

Name Typed or Printed/Commission No.

My Commission Expires:

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 8

PARTY: BellSouth Telecommunications, Inc.

DESCRIPTION:

1. BellSouth's responses to AT&T's First Set of Interrogatories and Request for Production of Documents.

PROFFERING PARTY: STAFF

I.D. # Stip-8

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section251 of the Telecommunications Act of 1996	)	Docket No. 000075-TP
	)	Filed: December 21, 2000

BELLSOUTH TELECOMMUNICATIONS, INC.'S RESPONSES TO AT&T OF THE SOUTHERN STATES, INC.'S FIRST SET OF INTERROGATORIES AND FIRST REQUEST FOR PRODUCTION OF DOCUMENTS

BellSouth Telecommunications, Inc., ("BellSouth") responds to AT&T of the Southern States, Inc.'s ("AT&T") First Request for Production of Documents and First Set of Interrogatories, both dated November 22, 2000, as follows:

RESPONSE TO REQUEST FOR PRODUCTION OF DOCUMENTS

Request No. 1: Please provide the most recent cost study that you have filed with the Florida Public Service Commission in support of your retail basic exchange service rates. Please indicate the Florida Public Service Commission proceeding in which the study was submitted and the filing date.

Response: BellSouth will make available at it's Atlanta offices, 675 West Peachtree Street, Atlanta, GA 30375, the cost study filed on July 31, 1998 in FPSC Docket No. 980000A-SP, Undocketed Special Project. This study contains proprietary information and is subject to the provisions of the nondisclosure agreement executed by AT&T.

Request No. 2: If you have any other cost studies for the provision of retail basic exchange service within your service territory that are more recent than that provided in response to Document Request No. 1, please provide all such studies.

Response: Please see BellSouth's response to AT&T's 1st Request for Production of Documents, Request No. 1.

Request No. 3: Provide a copy of each study, report, analysis or memorandum prepared by you or on your behalf which estimates or otherwise quantifies the costs of terminating ISP-bound traffic.

Response: BellSouth has conducted a cost study to support an FCC jurisdictional flat rate surcharge for ISP bound calls. The cost study, Internet Access Cost Recovery, is a regional cost study and was developed using TSLRIC methodology. This study has not been filed in any jurisdiction. This study contains proprietary information and is subject to the provisions of the nondisclosure agreement executed by AT&T.

ANSWERS TO INTERROGATORIES

See attached.

Respectfully submitted this 21st day of December 2000.

BELLSOUTH TELECOMMUNICATIONS, INC.

Nancy B. White

NANCY B. WHITE (2L)
c/o Nancy H. Sims
150 So. Monroe Street, Suite 400
Tallahassee, FL 32301
(305) 347-5558

R. Douglas Lackey

R. DOUGLAS LACKEY (2L)
E. EARL EDENFIELD JR.
Suite 4300
675 W. Peachtree St., NE
Atlanta, GA 30375
(404) 335-0763

240585

REQUEST: Please state the name, address and position (job title) with BellSouth of each person providing responses to these Interrogatories.

RESPONSE:

Steve Bigelow
Director
3535 Colonnade Pkwy
Birmingham, AL 35243

Richard McIntire
Director
600 N 19th St.
Birmingham, AL 35203

Ron Cook
Manager
3535 Colonnade Pkwy
Birmingham, AL, 35243

RESPONSE PROVIDED BY: See above

REQUEST: Please provide the following data for your retail access lines for the end of each year, 1996 through 1999. If the monthly rates for a given service listed below vary by exchange (e.g., due to rate group classifications), please break down the access line count for the service by each such distinct rate.

a. Primary residence lines – flat-rate.
b. Primary residence lines – measured rate.
c. Additional (non-primary residence lines. Please break down by type of service (e.g., measured rate).
d. Single-line business lines – measured rate (untimed).
e. Single-line business lines – measured rate (timed).

RESPONSE: BellSouth does not have the requested data for 1996, 1997, and 1998. See attached spreadsheet with 1999 data.

RESPONSE PROVIDED BY: Steve Bigelow
Director
3535 Colonnade Pkwy
Birmingham, AL 35243

FLORIDA

December, 1999

LINES	RATE GROUP 1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
Primary Res. - Flat Rate	971	5,390	65,950	128,359	264,803	418,867	162,233	93,141	328,538	396,803	294,719	1,420,477	3,580,251
Primary Res. - Meas. Rate	127	837	5,528	11,402	21,747	26,115	10,938	6,978	19,272	15,288	8,072	47,466	173,770
Non-Primary Res. - Flate Rate	153	580	12,377	24,294	47,092	85,219	33,169	22,993	88,394	99,257	69,129	356,711	839,368
Non-Primary Res. - Meas. Rate	10	39	637	1,066	1,663	2,655	1,067	1,061	3,555	3,624	1,813	8,196	25,386
Bus. - Meas. Rate (Untimed)	13	10	115	273	419	522	198	182	425	448	246	1,260	4,111
Bus. - Meas. Rate (Timed)			3	4	10	11	53	7	2	6	7	10	113

REQUEST: Provide the following usage and revenue data for each year from 1996-1999 for your Florida service territory.

a. Total local minutes. For any year in which you have excluded minutes associated with ISP-bound calls from "total local minutes", please so state and separately provide the quantity of (non-toll) minutes associated with ISP-bound calls.
b. Total local messages (associated with, e.g., untimed business measured rate service). For any year in which you have excluded messages associated with ISP-bound calls from "total local messages", please so state and separately provide the quantity of messages associated with ISP-bound calls.

RESPONSE:

a. BellSouth does record unbilled local usage; therefore, the requested data is not available.

b. The data is not available in the requested format. In an attempt to be responsive to the request, the following year-end data is provided.

Month	Messages
Dec-96	13,249,147
Dec-97	12,222,943
Dec-98	10,695,398
Dec-99	8,927,767

RESPONSE PROVIDED BY: Ron Cook
Manager
3535 Colonnade Pkwy
Birmingham, AL, 35243

REQUEST: Provide the following usage and revenue information for the year 1999 (or most recent year available), for primary residence lines – measured rate.

a. Total billed local minutes.
b. Total unbilled local minutes (i.e., minutes included within end users' call allowances so that no per-call or per-minute charges apply).
c. Total revenue generated from billed minutes (i.e., generated by local usage charges applied on a per-call or per-minute basis).

RESPONSE: The data is not available in the requested format. In an effort to be responsive, the following data for December, 1999 is provided. BellSouth does not aggregate usage separately for primary and secondary lines; therefore, usage and revenues for all residence measured accounts are provided.

a. There were 1,002,727 local minutes accumulated for residence measured accounts.
b. BellSouth does not track unbilled local usage.
c. Residence measured accounts were billed $12,829.

RESPONSE PROVIDED BY: Ron Cook
Manager
3535 Colonnade Pkwy
Birmingham, AL, 35243

REQUEST: Provide the following usage and revenue information for the year 1999 (or most recent year available), for additional residence lines – measured rate.

a. Total billed local minutes.
b. Total unbilled local minutes (i.e., minutes included within end users' call allowances so that no per-call or per minute charges apply.
c. Total revenues generated from billed minutes (i.e., generated by local usage charges applied on a per-call or per-minute basis).

RESPONSE: Please see BellSouth's response to AT&T's 1st Set of Interrogatories, Item No. 4.

RESPONSE PROVIDED BY:

Ron Cook
Manager
3535 Colonnade Pkwy
Birmingham, AL, 35243

REQUEST: Provide the following usage and revenue information of the year 1999 (or most recent year available), for single-line business lines – measured rate (timed)

a. Total billed local minutes.
b. Total unbilled local minutes (i.e., minutes included within end users' call allowances so that no per-call or per-minutes charges apply), if any.
c. Total revenue generated from billed minutes (i.e., generated by local usage charges applied on a per-call or per-minute basis).

RESPONSE: The data is not available in the requested format. In an effort to be responsive, the following data for December,1999 is provided. BellSouth does not aggregate usage separately for single-line and multi-line business accounts; therefore, usage and revenues for all business line measured accounts are provided.

a. There were 180,080 total local minutes accumulated for business measured accounts.
b. BellSouth does not track unbilled local minutes.
c. Business measured accounts were billed $6,274.

RESPONSE PROVIDED BY: Ron Cook
Manager
3535 Colonnade Pkwy
Birmingham, AL, 35243

REQUEST: At any time since January 1996, has BellSouth attempted to separately identify and track ISP-bound calls originated over its end users' access lines? If the answer is yes, describe all such monitoring which BellSouth has performed, and provide all traffic statistics which BellSouth compiled therein concerning ISP-bound traffic.

RESPONSE:

BST ISP MOU Estimation Process
(July 24, 1998)

Estimation of ISP minutes of use are based on the following.

All calls originating from BellSouth Telecommunications (BST), terminating to a CLEC, are recorded in each BST central office, this data is collected via ETCS (Electronic Toll Collection System) and sent to ALPHA for processing. Alpha is the front end processing for all Automatic Message Accounting (AMA) data.

This data is stored in the 12 TSO (RAO) sites (e.g., State, except Florida, where there are three sites and Georgia two sites).

These sites store this data by OCN, NPA, NXX, Call type, Message date, number of messages, and minutes of use.

This data is then sorted (via DB2 Queries) to extract Local and IntraLata Toll calls by the groupings listed above. As a function of the query, a calculation of call message hold times (i.e., Total MOU/Total Messages) yields an average call holding time.

BellSouth has attempted to obtain a list of ISP access numbers from all sources. It has only been able to obtain a fraction of such access numbers. The CLEC's disagree with the basic premise that ISP minutes of use are interstate in jurisdiction. However, with the ISP access numbers it possesses, BellSouth determines the number of known ISP MOUs and uses the process in steps 6, 7 and 8 to estimate the remainder.

From external industry and internal BST studies, it was determined that the average holding times for ISP and Local/IntraLata messages were 20 minutes and 3-4 minutes respectively.

The Company then made the assumption, based on the above industry standard, that where the average call hold time for a CLEC is 15 minutes or greater by NPA/NXX, this would be considered a reasonable cutoff for "estimated ISP minutes of use".

RESPONSE: (Cont.)

A summation of all minutes of use for each NPA/NXX is calculated, and is then divided by the total messages for that NPA/NXX to determine those that meet the 15 minute criteria. The result is the total minutes of use that BST estimates terminate to an ISP.

The above estimated ISP minutes of use are then put in dispute with the CLEC involved, and the Interconnection Purchasing Center (IPC) pays the balance of the invoice.

This estimation process is subject to the CLEC providing factual ISP usage information to BellSouth and having BellSouth true up the invoiced dollars.

RESPONSE PROVIDED BY: Richard McIntire
Director
600 N 19th St.
Birmingham, AL 35203

CMP\Ann Marsh

BELLSOUTH TELECOMMUNICATIONS, INC.

FPSC DKT NO. 000075-TP

AT&T'S 1ST REQUEST FOR PRODUCTION OF DOCUMENTS

POD NO. 3

PROPRIETARY

DECLASSIFIED PROPRIETARY

NHL 1-10-01
DECLASSIFIED

Internet Access
BellSouth Region

Atlanta, GA
September 27, 2000

To: Jerry Dick
Director – Interconnection Services

From: Reg Starks
Director – Finance Cost Matters

Subject: Cost Study to Support a Flat Rate Surcharge for ISP Calls

Attached are the results of our regional TSLRIC study developed to support in the FCC jurisdiction a flat rate surcharge to local service end users when connecting with an Internet Service Provider (ISP).

As requested, it assumes local service is defined to include the full call setup and the normal (non-ISP) conversation length portion of the call. The study results are comprised of (1) the additional BST network costs incurred due to longer call duration, (2) project team implementation costs, and (3) reciprocal compensation expense paid to CLECs. These costs are expressed on a 'per line, per month' basis to align with the specified price structure.

Please direct any questions on this study to me at 404-529-6762 or to Sally Varner at 404-529-7906.

Attachments
cc: (Memo with Study Results Only) Deonne Caldwell
Ed Honeycutt
Charles Lee
Bob McKnight
Ferrell Skinner (Mechanized Copy)
Margaret Thompson

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#58

Internet Access
BellSouth Region

Summary of TSLRIC Study Results
3 – Year Levelized

I. Volume Sensitive Costs	Monthly Recurring, Per Line
Additional Network Costs	$2.341260
Service Center Call Processing	$0.078897
Bill Insert/ Notification	$0.001616
End User Billing	$0.013887
Subtotal	$2.43566
Reciprocal Compensation	$1.008897
Total	$3.444557

II. Volume Insensitive Costs

Product Implementation*

Product Manager	Yr1	Yr2	Yr3
	$8,733	$4,366	$2,183

*Restated on a 3-year projected demand basis (per line) $0.000036

III. Average Incremental Results

Combined Volume Sensitive and Volume Insensitive	$3.444593
(Rounded)	$3.44

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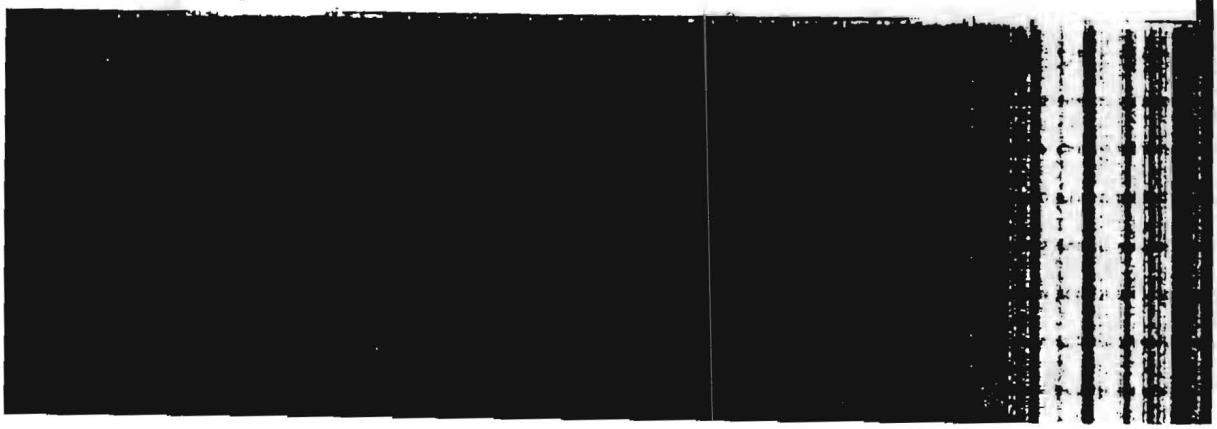
[redacted]

Internet Access
BellSouth Region

Summary of Results
3 – Year Levelized

Reformatted per request of product manager:

		Monthly Recurring, Per Line
I.	Network and Product Implementation	
	Additional Network Costs	$2.341260
	Product Implementation	
	Product Management	$0.000036
	Service Center Call Processing	$0.078897
	Bill Insert/ Notification	$0.001616
	End User Billing	$0.013887
	Subtotal	$0.094436
	Total Network and Product Implementation Costs	$2.435696
II.	Reciprocal Compensation	$1.008897
III.	Average Incremental Results	
	Combined Additional Network Costs, Product Implementation And Reciprocal Compensation	$3.444593
	(Rounded)	$3.44



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	BellSouth Region												
2	Index Sheet												
3	Study Period: 2000-2002												
4													
5													
6													
7													
8													
9			Sheet Names:		Description:								
10			Index		Internet Access Cost Recovery - Cost Study								
11			INPUTS		Inputs for Internet Access Cost Recovery Cost Study								
12			WP100		Develops the Product Implementation and Management Work Times per Minute								
13			WP200		Develops Bill Notification, Svc Center Inquiries and End User Billing per Minute								
14			WP300		Demand Data - Estimated ISP MOU								
15			WP350		Demand Data - Annual 'Line-Months' for Primary Res and Single Line Business								
16			WP400		Summary of Implementation and End User Billing Cost Elements								
17			Additives_Recurring		CALCULATOR INPUT FORM - RECURRING EXPENSES DATA								
18			Recurring Labor		CALCULATOR INPUT FORM - RECURRING LABOR EXPENSES DATA								
19			WP500		Summarizes Cost Study Results from BellSouth Cost Calculator (Network Usage, Billing, Implementation)								
20			WP600		Develops Average Reciprocal Compensation Expense per Line								
21			WP700		SUMMARY								
22													
23													
24													
25													
26													
27													

	A	D	E	F	G	H
1	BellSouth Region					
2	Inputs for Internet Access Cost Recovery Cost Study					
3	Study Period: 2000-2002					
4						
5						
6	Item/Description			Amount		
7	Description	JPC / JG / IM6	Source	YR1	YR2	YR3
8						
9	Annual Full Time Work Hours		Assumption - Based on 48.2 40-hour weeks annually.	1928	1928	1928
10						
11	Product Management (Hours):	JG68	Product Manager	160	80	40
12						
13	Bill Operations:					
14	Rate data base efforts (Hours)	JG68	BellSouth Billing, Inc. (BBI)	1.5	0	0
15						
16						
17	Andersen - 2 UBOC Conversions (contract amount)	Contractor	BellSouth Billing, Inc. (BBI)	$ 99,000	$ -	$ -
18						
19	Accounting/Journalization:					
20	Preparation of Product and Services Accounting Plan for account code (Hours)	JG68	BellSouth Billing, Inc. (BBI)	8	0	0
21	Accounting Policy (Hours)	JG68	BellSouth Billing, Inc. (BBI)	0.5	0	0
22		JG68	BellSouth Billing, Inc. (BBI)	0.5	0	0
23	Revenue Analysis and Operations (Hours)	JG68	BellSouth Billing, Inc. (BBI)	4	0	0
24	Performance Management (Hours)	JG68	BellSouth Billing, Inc. (BBI)	20	0	0
25		JG68	BellSouth Billing, Inc. (BBI)	20	0	0
26						
27	Bill Insert Notification (Does not include cost to produce insert):					
28	Process Costs, per insert		BellSouth Billing, Inc. (BBI)	$ 0.013280	$ -	$ -
29	Bill Overhead, per insert		BellSouth Billing, Inc. (BBI)	$ 0.003586	$ -	$ -
30	Incremental Postage, per insert		BellSouth Billing, Inc. (BBI)	$ 0.006130	$ -	$ -
31						
32	Number of Bill Inserts (Based on number of accounts.)		Product Commercialization Unit (PCU)	21,741,104	0	0
33						
34	Bill Insert Production:					
35	Cost to produce the insert, per insert		Consumer Customer Operation Unit (COU)	$ 0.0075	$ -	$ -

	A	D	E	F	G	H
36						
37						
38	End User Billing Costs:					
39	Billing & Collection Cost/Message		Billing & Collections Fundamental Cost Study	$ 0.008872		
40	Bill Rendering Cost per Bill Print Line		Billing & Collections Fundamental Cost Study	$ 0.005215		
41						
42						
43	Service Center Impact:					
44	End User call processing (hours), per call	WS23	Consumer COU	0.2	0.2	0.2
45						
46	% of End User Accounts to Inquire the Service Center		Product Manager	20%	10%	3%
47						
48						
49	Local Usage Call Duration (Avg Min per Call)		Subscriber Line Usage Study	3.9	3.9	3.9
50						
51	IXC Usage Call Duration (Avg Min per Call)		Product Manager	76.8	76.8	76.8
52						
53	Average Calls per Month		Product Manager - Assumption: 1 call per day, 6 days per week, 4 weeks per month	24	24	24
54						
55	Average Lines per Bill		Assumption	1	1	1
56						
57	Demand (IXC Bound Traffic):					
58	Estimated CLEC/ IXC MOU, per year		Product Manager	57,411,040,891	85,849,597,222	111,407,746,328
59						
60	Estimated BST/IXC MOU, per year		Strategic Pricing/Revenue Mgmt	15,874,321,184	20,001,064,914	24,101,881,222
61						
62	Discount Rate		Assumption	0.1125	0.1125	0.1125
63						
64	Present Value Factors		1/(1+discount rate)^no. of periods	0.8989	0.8080	0.7263
65						
66	Average Recip Comp Rate per Minute of Use		Product Manager	$ 0.00300	$ 0.00200	$ 0.00175
67						
68						
69	Demand - Primary Res and Single Line Business Lines (avg in-service each month)			14,891,966	14,773,070	14,822,205

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	A	D	E	F	G	H
1	BellSouth Region					
2	Develops the Product Implementation and Management Work Times per Minute					
3	Study Period: 2000-2002					
4						
5						
6	Item Description			Amount		
7	Description	JFC / JS / WS	Source	YR1	YR2	YR3
8						
9	Product Implementation and Management:					
10	Product Manager (Hours)	JQ50	INPUTS, Ln11	160	80	40
11						
12	Rate data base edits (Hours)	JQ50	INPUTS, Ln14	1.5	-	-
13						
14						
15						
16	Development of Product/Service Accounting Plan (Hours)	JQ50	INPUTS, Ln20	8	-	-
17						
18	Accounting Policy (Hours)	JQ50	INPUTS, Ln21	0.5	-	-
19		JQ50	INPUTS, Ln22	0.5	-	-
20	Revenue Analysis and Operations (Hours)	JQ50	INPUTS, Ln23	4	-	-
21	Performance Management (Hours)	JQ50	INPUTS, Ln24	20	-	-
22		JQ50	INPUTS, Ln25	20	-	-
23						
24	Product Implementation and Management (Worktimes Summarized by Payband) (Hours):	JQ50	Ln10+Ln19+Ln22	160.50	80.00	40.00
25		JQ50	Ln16+Ln18+Ln20+Ln21	32.50	-	-
26		JQ50	Ln12	1.5	-	-
27						
28	Present Value Factors		INPUTS, Ln64	0.8999	0.8080	0.7283
29						
30	Sum of the PV of Worktimes	JQ50	(Ln28,Y1*Ln34,Y1)+ (Ln28,Y2*Ln34,Y2)+ (Ln28,Y3*Ln34,Y3)	256.94		
31		JQ50	(Ln26,Y1*Ln25,Y1)+ (Ln26,Y2*Ln26,Y2)+ (Ln26,Y3*Ln25,Y3)	28.21		
32		JQ50	(Ln26,Y1*Ln26,Y1)+ (Ln26,Y2*Ln26,Y2)+ (Ln26,Y3*Ln26,Y3)	1.35		
33						
34	Product Implementation and Management Worktimes per Line by Payband:	JQ50	Ln30/WP350,Ln17	0.0000056834		
35		JQ50	Ln31/WP350,Ln17	0.0000000677		
36		JQ50	Ln32/WP350,Ln17	0.0000000031		

	A	B	C	D	E	F
1	BellSouth Region					
2	Develope Bill Notification, Svc Center Inquiries and End User Billing per Minute					
3	Study Period: 2000-2002					
4						
5						
6	Item/Description			Amount		
7	Description	JFC / JQ / WS	Source	YR1	YR2	YR3
8						
9	Bill Insert Notification at Account Level :					
10	Process costs, per insert		INPUTS, Ln28	$ 0.013280	$ -	$ -
11	Overhead, per insert		INPUTS, Ln29	$ 0.003585	$ -	$ -
12	Incremental postage, per insert		INPUTS, Ln30	$ 0.008130	$ -	$ -
13	Total Envelope Stuffing , per insert		SUM(Ln10...Ln12)	$ 0.024995	$ -	$ -
14						
15	Produce insert, per insert		INPUTS, Ln35	$ 0.007500	$ -	$ -
16	Total insert- envelope stuffing and production cost, per insert		Ln13+Ln15	$ 0.032495	$ -	$ -
17						
18	Number of bill inserts for mailing		INPUTS, Ln32	21,741,104	-	-
19	Total insert-envelope stuffing and production expense		Ln16*Ln18	$ 706,477	$ -	$ -
20						
21						
22	Andersen - USOC Conversion Efforts	Contractor	INPUTS, Ln17	$ 69,000	$ -	$ -
23						
24	Total Bill Insert Notification and Andersen Consulting		Ln19+Ln22	$ 775,477	$ -	$ -
25						
26	Present Value Factors		INPUTS, Ln84	0.8989	0.8080	0.7263
27						
28	Sum of the PV of Bill Insert Notification and USOC efforts		(Ln26,Y1*Ln24,Y1)+ (Ln26,Y2*Ln24,Y2)+ (Ln26,Y3*Ln24,Y3)	$ 697,058		
29						
30	Bill Insert Notification and USOC Efforts Expense per Line		Ln28/WP350,Ln17	$ 0.00161616		
31						
32						
33	Service Center Inquiries:					

	A	B	C	D	E	F
34	End User Call Processing, per account (Hours)	WS23	INPUTS, Ln44	0.2	0.2	0.2
35						
36	% End User accounts inquiring		INPUTS, Ln46	20%	10%	3%
37	Number of accounts inquiring (Based on initial bill insert mailing in first year.)		Ln36*Ln18	4,348,221	2,174,110	652,233
38						
39	End User Call Processing (Hours)		Ln34*Ln37	869,644	434,822	130,447
40						
41	Present Value Factors		INPUTS, Ln64	0.8080	0.8080	0.7263
42						
43	Sum of the PV of EU Call Processing Inquiry Hours		(Ln41,Y1*Ln39,Y1)+ (Ln41,Y2*Ln39,Y2)+ (Ln41,Y3*Ln39,Y3)	1,227,770		
44						
45	Service Center Call Processing Inquiry Time per Line (Hours)	WS23	Ln43/WP350,Ln17	0.0028466391		
46						
47						
48	End User Billing:					
49	Billing & Collection Costs/message		INPUTS, Ln39	$ 0.006672		
50						
51	Number of Lines per Bill Page		INPUTS, Ln55	1		
52						
53	Bill Rendering Cost per Bill Print Line		INPUTS, Ln40	$ 0.006215		
54						
55						
56	Total End User Billing Expense per Line		Ln49+Ln53	$ 0.01388700		

	A	B	C	D	E
1	BellSouth Region				
2	Demand Data - Estimated ISP MOU				
3	Study Period: 2000-2002				
4					
5					
6			Amount		
7	Item/Description	Source	YR1	YR2	YR3
8					
9	Demand (ISP Bound Traffic):				
10	Estimated CLEC/ ISP MOU, per year	INPUTS, Ln58	57,411,040,891	86,849,597,222	111,407,746,328
11	Estimated BST/ISP MOU, per year	INPUTS, Ln60	15,874,321,194	20,001,064,914	24,101,661,222
12	Total Estimated ISP MOU, per year	Ln10+Ln11	73,285,362,085	106,850,662,136	135,509,407,550
13					
14	Present Value Factors	INPUTS, Ln64	0.8989	0.8080	0.7263
15					
16	Present Value of Demand	Ln14*Ln12	65,874,482,773	85,525,089,972	98,416,833,457
17	Sum of the PV of Demand for ISP MOU	SUM(Ln16)	249,816,406,203		
18					
19					
20					
21	Present Value of CLEC/ISP MOU, per Year	Ln10*Ln14	51,605,430,014	69,364,653,733	80,912,445,966
22	Present Value of BST/ISP MOU, per Year	Ln11*Ln14	14,269,052,759	16,160,436,239	17,504,387,492
23					
24	Sum of the PV of CLEC/ISP MOU	SUM(Ln21)	201,882,529,713		
25	Sum of the PV of BST/ISP MOU	SUM(Ln22)	47,933,876,489		

-22-

	A	B	C	D	E
1	BellSouth Region				
2	Demand Data - Annual 'Line-Months' for Primary Res and Single Line Business				
3	Study Period: 2000-2002				
4					
5					
6			Amount		
7	Item/Description	Source	YR1	YR2	YR3
8					
9	Demand - Primary Res and Single Line Business Lines (ave in-service each month)	INPUTS, Ln69	14,891,966	14,773,070	14,622,205
10					
11	Annual Pri Res, LI, and SLB Lines	Ln9*12	178,703,592	177,276,840	175,466,460
12					
13					
14	Present Value Factors	INPUTS, Ln54	0.8989	0.8060	0.7263
15					
16	Present Value of Demand	Ln14*Ln11	160,632,442	143,235,927	127,436,565
17	Sum of the PV of Demand for Pri Res and SLB Lines	SUM(Ln16)	431,304,934		

	A	B	C	D	E	F
1	BellSouth Region					
2	Summary of Implementation and End User Billing Cost Elements					
3	Study Period: 2000-2002					
4						
5						
6	Item/Description			Amount		
7	Description	JPC / JG / WS	Source	YR1	YR2	YR3
8						
9	C.3.1					
10	Product Implementation and Management Work Times per Line by Payband:	JG59	WP100, Ln34	0.0000005934		
11		JG58	WP100, Ln35	0.0000000677		
12		JG56	WP100, Ln36	0.0000000031		
13						
14	C.3.2					
15	Service Center Call Processing Inquiry Work Time per Line	WS23	WP200, Ln45	0.0028466391		
16						
17	C.3.3					
18	Bill Insert Notification and USOC Efforts Expense per Line		WP200, Ln30	$ 0.00161616		
19						
20	C.3.4					
21	End User Billing Expense per Line		WP200, Ln58	$ 0.01388700		

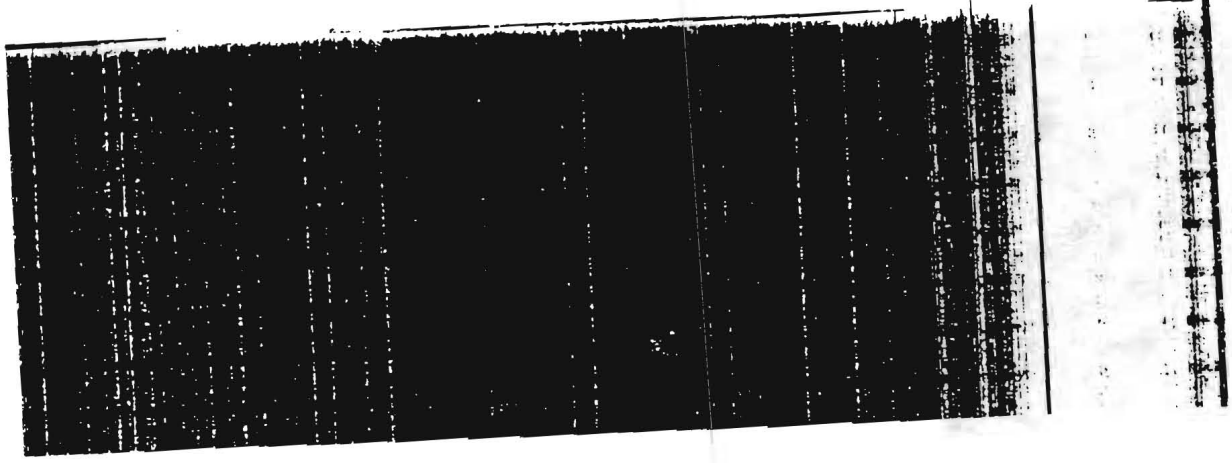
	A	B	C	D	E	F	G	H
1		CALCULATOR INPUT FORM - RECURRING EXPENSES DATA						
2								
3		Instructions:						
4		1. Use this worksheet to record recurring non-labor expenses to be input into the						
5		Calculator calculations.						
6		2. All amounts shown are per unit (e.g., per call, per loop, per MOU).						
7		3. Input data, by Cost Element, leaving no blank lines. On next row						
8		after last line of data, type END in Cost Element Column.						
9		4. All data on this form should be cell-referenced to study workpapers.						
10		5. Do NOT change columns, headings, sheet name.						
11								
12								
13								
14				Recurring	Recurring			
15			Recurring	Volume	Volume			
16		Cost	Expense Description	Sensitive	Insensitive			
17	State	Element #	(Limited to 25 characters)	$ Amount	$ Amount			
18	BS	C.3.3	Bill Insert Notification and USOC Ele	0.00161616				
19	BS	C.3.4	End User Billing Expense per Line	0.01388700				
20		END						
21								
22								
23								
24								
25								
26								
27								
28								
29			Maximum 10 entries per Cost Element #					
30								

-25-

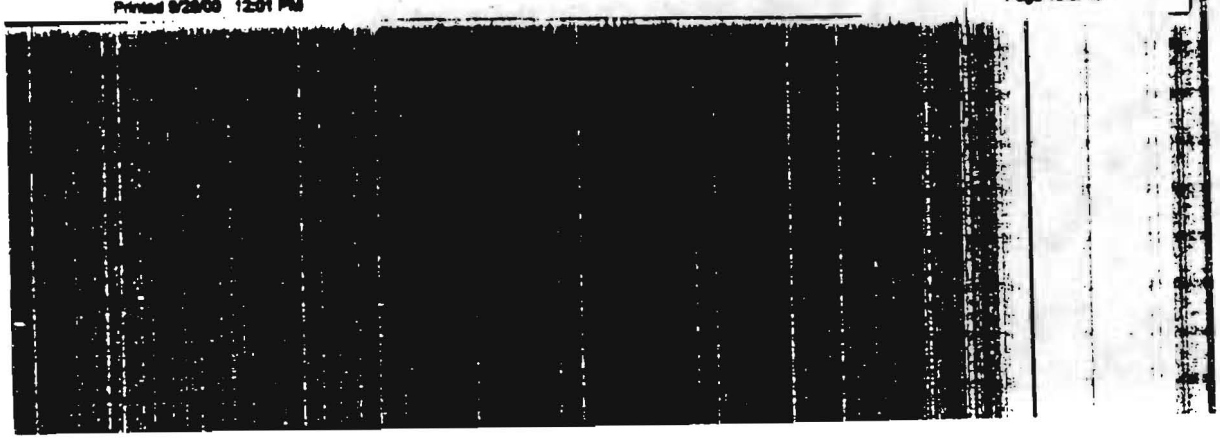
	A	B	C	D	E	F	G	H
1		CALCULATOR INPUT FORM - RECURRING LABOR EXPENSES DATA						
2								
3		Instructions:						
4		1. Use this worksheet to record recurring expensed labor times to be input into the						
5		Calculator calculations.						
6		2. All amounts shown are per unit (e.g., per call, per loop, per MOU).						
7		3. Input data, by Cost Element, leaving no blank lines. On next row						
8		after last line of data, type END in Cost Element Column.						
9		4. All data on this form should be cell-referenced to study workpapers.						
10		5. Do NOT change columns, headings, sheet name.						
11								
12								
13						Work Time (Hours)		
14		Cost	Labor Expense Description	JFC/	Volume	Volume		
15	State	Element #	(Limited to 25 characters)	Preferred	Sensitive	Insensitive		
16	BS	C.3.1	Prod Mgmt/Implemen. per Line	JG58		6.934E-07		
17	BS	C.3.1	Prod Mgmt/Implemen. per Line	JG58		8.77328E-08		
18	BS	C.3.1	Prod Mgmt/Implemen. per Line	JG58		3.12613E-09		
19	BS	C.3.2	Svc Ctr Call Processing per Line	WB23	0.002846639			
20		END						
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37			Maximum 20 entries per Cost Element #					
38								

-26-

	A	B	C
1	BellSouth Region		
2	Summarized Cost Study Results from BellSouth Cost Calculator (Network Usage, Billing, Implementation)		
3	Study Period: 2000-2002		
4			
5			
6			
7	Item/Description	Source	Amount
8	ULM28		
9	Cost results for 76.826 min CLEC/ISP call:	BellSouth Cost Calculator (IAclec_SBTu.xls)	
10	End Office Switching Function		$ 0.000734
11	End office Trunk Port Shared		$ 0.000233
12			
13	Tandem Switching Function		$ 0.000003
14	Tandem Trunk Port Shared		$ 0.000344
15			
16	Common Transport Function		$ 0.000001
17	Common Transport Facilities Termination		$ 0.000301
18	Total per MOU based on 76.826 Avg Min/Msg	SUM(Ln10...Ln17)	$ 0.001408
19	Avg Min/Msg	INPUTS, Ln61	76.8
20	Total Cost per Msg	Ln18*Ln19	$ 0.108016
21			
22	Cost results for 76.826 min BST/ISP call	BellSouth Cost Calculator (IAbst_SBTu.xls)	
23	End Office Switching Function		$ 0.000734
24	End office Trunk Port Shared		$ 0.000233
25			
26	Tandem Switching Function		$ 0.000003
27	Tandem Trunk Port Shared		$ 0.000344
28			
29	Common Transport Function		$ 0.000001
30	Common Transport Facilities Termination		$ 0.000119
31	Total per MOU based on 76.826 Avg Min/Msg	SUM(Ln23...Ln30)	$ 0.001334
32	Avg Min/Msg	INPUTS, Ln61	76.8
33	Total Cost per Msg	Ln31*Ln32	$ 0.101716
34			
35	Cost results for 3.9 min local call	BellSouth Cost Calculator (IAlocal_SBTu.xls)	
36	End Office Switching Function		$ 0.001788
37	End office Trunk Port Shared		$ 0.000323
38			
39	Tandem Switching Function		$ 0.000008
40	Tandem Trunk Port Shared		$ 0.000033
41			
42	Common Transport Function		$ 0.000001
43	Common Transport Facilities Termination		$ 0.000176
44	Total per MOU based on 3.9 Avg Min/Msg	SUM(Ln38...Ln43)	$ 0.002573
45	Avg Min/Msg	INPUTS, Ln49	3.9
46	Total Cost per Msg	Ln44*Ln45	$ 0.009288
47			
48	Incremental cost difference between CLEC/ISP and local call per msg:	Ln20-Ln46	$ 0.098781
49			
50	Incremental cost difference between BST/ISP and local call per msg:	Ln33-Ln46	$ 0.092462
51			
52	Weighting of Demand		
53	Sum of the PV of CLEC/ISP MOU	WP300, Ln34	201,663,926,713
54	Sum of the PV of BST/ISP MOU	WP300, Ln35	47,550,579,489
55	Total PV of ISP Demand	Ln53+Ln54	249,214,506,203
56			
57	% CLEC/ISP Demand to Total	Ln53/Ln55	80.9%
58	% BST/ISP Demand to Total	Ln54/Ln55	19.2%
59			
60	Summary of Incremental Network Usage Cost per Msg		
61	CLEC/ISP and Local Call Differential (weighted)	Ln57*Ln48	$ 0.079811
62	BST/ISP and Local Call Differential (weighted)	Ln58*Ln50	$ 0.017741



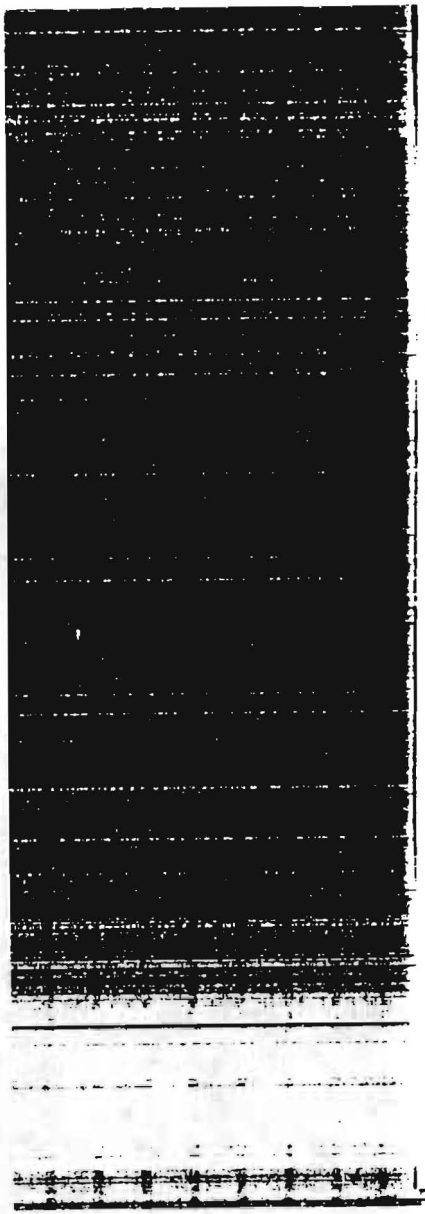
	A	B	C
63	Total Incremental Usage Cost per Min	Ln61+Ln62	$ 0.007562
64			
65			
66	Incremental network usage cost difference, per MOU:		
67	Incremental cost difference, per ISP MOU	Ln63(INPUTS, Ln61-INPUTS, Ln46)	$ 0.001338
68			
69	Incremental Network Usage Cost per Line, per Month	Ln67*(INPUTS, Ln61-INPUTS, Ln46*INPUTS, Ln63	$ 2.341260
70	PRODUCT IMPLEMENTATION/MANAGEMENT, BILL INSERT, SVC CENTER CALL PROCESSING, END USER BILLING	BellSouth Cost Calculator (Internet Access/FR.xls)	
71	Prod Management/Implementation (V/S)		$ 0.000038
72	Svc Center Call Processing (V/S)		$ 0.078887
73	Bill Insert and USOC Efforts (V/S)		$ 0.001616
74	End User Billing Expense(V/S)		$ 0.013887
75	Total Implementation, etc. per Line, per Month	SUM(Ln71...Ln74)	$ 0.094438
76			
77			
78	Total Internet Access Network Usage and Implementation Cost per Line, per month	(Ln69+Ln75)	$ 2.435698
79			
80			
81			
82	V/I = Volume Insensitive		
83	V/S = Volume Sensitive		



	A	B	C	D	E
1	BellSouth Region				
2	Develope Average Reciprocal Compensation Expense per Line				
3	Study Period: 2000-2002				
4					
5					
6			Amount		
7	Item/Description	Source	YR1	YR2	YR3
8					
9	Estimated CLEC/ ISP MOU, per year	WP300, Ln10	57,411,040,891	85,849,597,222	111,407,746,328
10	Average Recip Comp Rate per Minute of Use	INPUTS, Ln85	$ 0.00300	$ 0.00200	$ 0.00175
11	Annual Reciprocal Compensation Expense	Ln9*Ln10	$ 172,233,123	$ 171,699,194	$ 194,963,554
12	Present Value Factors	INPUTS, Ln84	0.9009	0.8060	0.7263
13	Present Value of Annual Expense	Ln11*Ln12	$ 154,816,290	$ 138,329,307	$ 141,596,780
14	Total Present Value of Expense	SUM(Ln13)	$ 435,142,378		
15					
16	Sum of the PV of Demand for Pri Res and SLB Lines	WP350, Ln17	431,304,934		
17					
18	Average Reciprocal Compensation Expense per Line	Ln14/Ln16	$ 1.008997		

	A	B	C
1	BellSouth Region		
2	SUMMARY		
3	Study Period: 2000-2002		
4			
5			
6	Item/Description	Source	Amount
7			
8	Total Internet Access Network Usage and Implementation Cost per Line	WP500, Ln78	$ 2.435696
9			
10	Reciprocal Compensation Expense per Line	WP600, Ln18	$ 1.008897
11			
12	TOTAL per line, per month	Ln8+Ln10	$ 3.444593
13	Rounded to 2 decimal places		$ 3.44

FCC Filing Cost Sheets
(FCC Format)



BellSouth Cost Calculator 2.4 - Element Summary Report

Study Name:	IA(Flat Rate)
State:	BellSouth
Scenario:	Product Implementation Expenses
Study Type:	FCC

Cost Element	Description	Recurring	Non Recurring	Non-Recurring First	Non-Recurring Additional	Non-Recurring Initial	Non-Recurring Subsequent
C.3.1	Prod Mgmt/Implementation, per Line	$0.000036					
C.3.2	Svc Ctr Call Processing, per Line	$0.078697					
C.3.3	Bill Insert Notification and USOC Efforts, per Line	$0.001616					
C.3.4	End User Billing Expense, per Line	$0.013697					

RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

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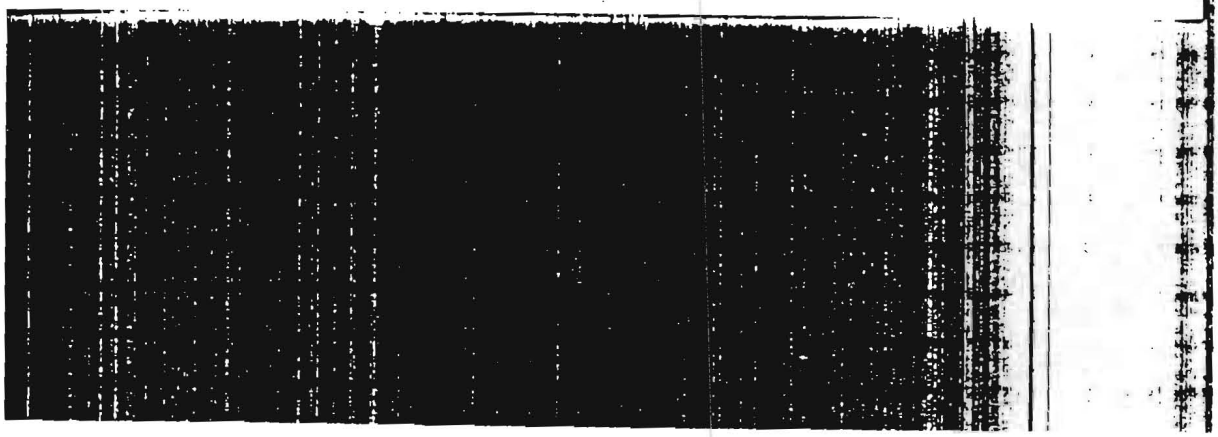
SERVICE NAME: (Untitled)
USOC: C3L1
Prod Mgmt/Implementation, per Line

TOTAL UNIT INVESTMENT		$0.000000
INVESTMENT RELATED CAPITAL COSTS		
	Depreciation Expense	$0.000000
	Cost of Money (11.25%)	$0.000000
	Income Tax Expense	$0.000000
	Total (LN18 + LN19 + LN20)	$0.000000
INVESTMENT RELATED OPERATING EXPENSES		
	Plant Specific Expense	$0.000000
	Other Expense	$0.000000
	Ad Valorem Tax	$0.000000
	Total (LN24 + LN25 + LN26)	$0.000000
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)		$0.000000
NON-INVESTMENT RELATED UNIT COSTS		$0.000428
TOTAL UNIT COSTS (LN31 + LN33)		$0.000428
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)		NA

Source: BSCC 2.4

Page 1



RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
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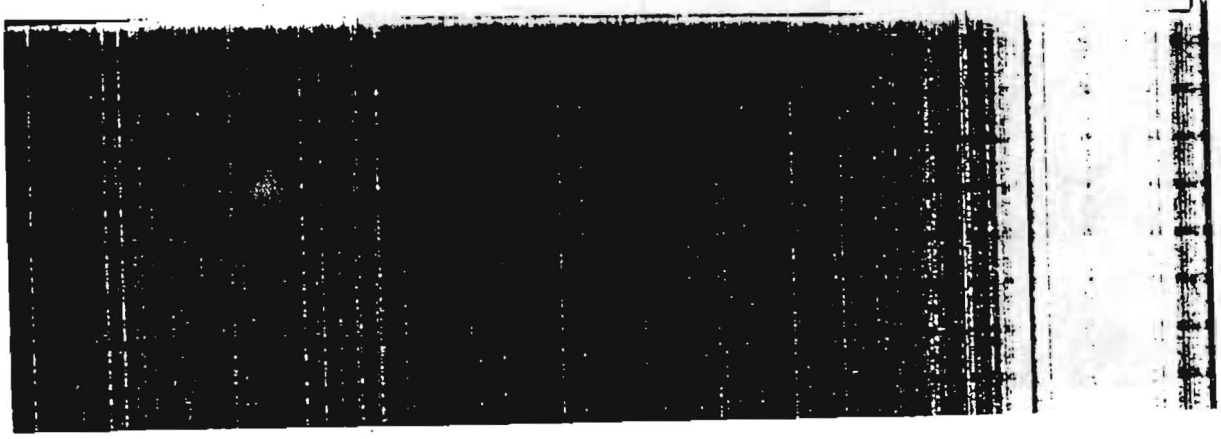
SERVICE NAME: (Untitled)
USOC: C.3.2
Svc Ctr Call Processing, per Line

TOTAL UNIT INVESTMENT	$0.000000
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000000
Cost of Money (11.25%)	$0.000000
Income Tax Expense	$0.000000
Total (LN18 + LN19 + LN20)	$0.000000
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000000
Other Expense	$0.000000
Ad Valorem Tax	$0.000000
Total (LN24 + LN25 + LN26)	$0.000000
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000000
NON-INVESTMENT RELATED UNIT COSTS	$0.946769
TOTAL UNIT COSTS (LN31 + LN33)	$0.946769
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	NA

Source: BSCC 2.4



RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
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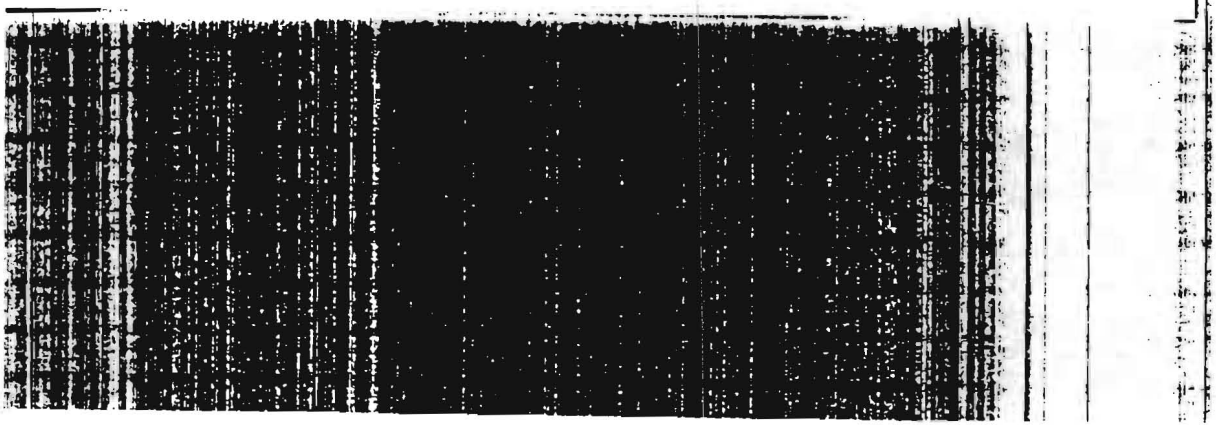
SERVICE NAME: (Untitled)
USOC: C.3.3
Bill Insert Notification and USOC Efforts, per Line

TOTAL UNIT INVESTMENT	$0.000000
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000000
Cost of Money (11.25%)	$0.000000
Income Tax Expense	$0.000000
Total (LN18 + LN19 + LN20)	$0.000000
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000000
Other Expense	$0.000000
Ad Valorem Tax	$0.000000
Total (LN24 + LN25 + LN26)	$0.000000
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000000
NON-INVESTMENT RELATED UNIT COSTS	$0.019394
TOTAL UNIT COSTS (LN31 + LN33)	$0.019394
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	NA

Source: BSCC 2.4

Page 1



RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
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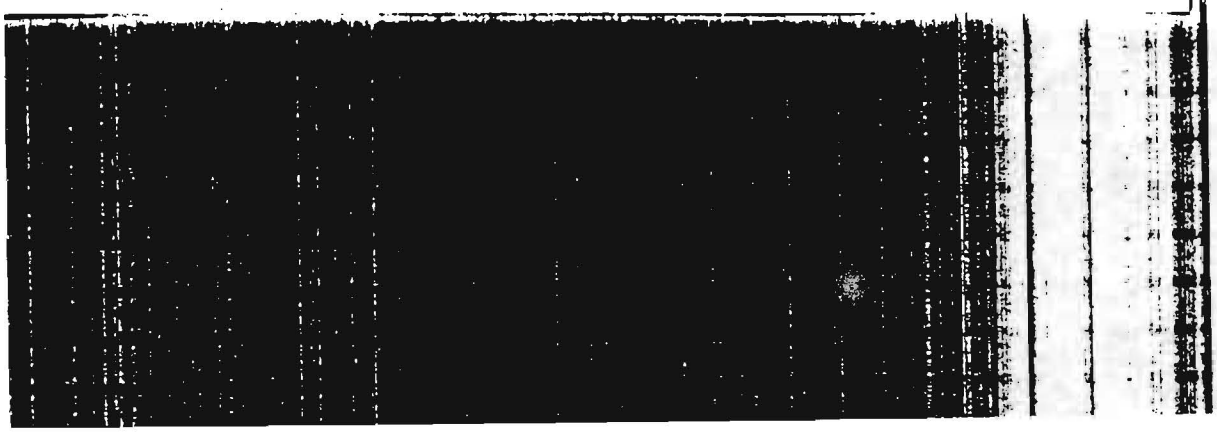
SERVICE NAME: (Untitled)
USOC: C.3.4
End User Billing Expense, per Line

TOTAL UNIT INVESTMENT		$0.000000
INVESTMENT RELATED CAPITAL COSTS		
	Depreciation Expense	$0.000000
	Cost of Money (11.25%)	$0.000000
	Income Tax Expense	$0.000000
	Total (LN18 + LN19 + LN20)	$0.000000
INVESTMENT RELATED OPERATING EXPENSES		
	Plant Specific Expense	$0.000000
	Other Expense	$0.000000
	Ad Valorem Tax	$0.000000
	Total (LN24 + LN25 + LN26)	$0.000000
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)		$0.000000
NON-INVESTMENT RELATED UNIT COSTS		$0.166644
TOTAL UNIT COSTS (LN31 + LN33)		$0.166644
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)		NA

Source: BSCC 2.4



BellSouth Cost Calculator 2.4 - Element Summary Report

Study Name:	IA(Flat Rate)
State:	BellSouth
Scenario:	Local 3.9
Study Type:	FCC

Cost Element	Description	Recurring	Non Recurring	Non-Recurring First	Non-Recurring Additional	Non-Recurring Initial	Non-Recurring Subsequent
C.1.1	End Office Switching Function, Total Per MOU	$0.001786					
C.1.2	End Office Trunk Port - Shared - Total per MOU	$0.000323					
C.2.1	Tandem Switching Function - Total per MOU	$0.000005					
C.2.2	Tandem Trunk Port - Shared - Total per MOU	$0.000033					
D.1.1	Common Transport - Total per Mile, per MOU	$0.000051					
D.1.2	Common Transport - Facilities Termination Total per MOU	$0.000175					

RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

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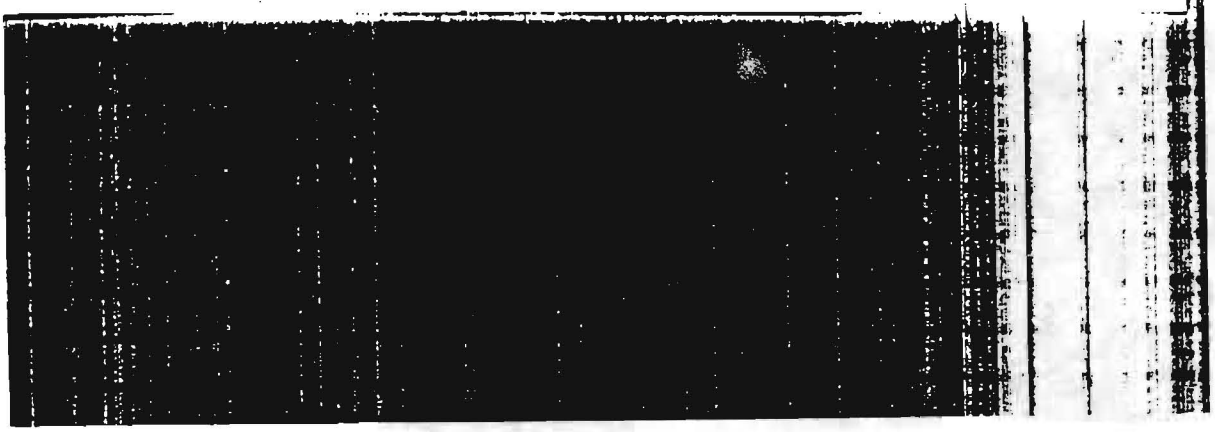
SERVICE NAME: (Untitled)
USOC: C.1.1
End Office Switching Function, Total Per MOU

TOTAL UNIT INVESTMENT	$0.006098
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000787
Cost of Money (11.25%)	$0.000456
Income Tax Expense	$0.000216
Total (LN18 + LN19 + LN20)	$0.001457
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000219
Other Expense	$0.000036
Ad Valorem Tax	$0.000075
Total (LN24 + LN25 + LN26)	$0.000329
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.001786
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.001786
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2208

Source: BSCC 2.4



RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
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SERVICE NAME: (Untitled)
USOC: C.1.2
End Office Trunk Port - Shared - Total per MOU

TOTAL UNIT INVESTMENT	$0.001466
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000142
Cost of Money (11.25%)	$0.000082
Income Tax Expense	$0.000039
Total (LN18 + LN19 + LN20)	$0.000264
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000040
Other Expense	$0.000006
Ad Valorem Tax	$0.000014
Total (LN24 + LN25 + LN26)	$0.000059
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000323
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000323
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2206

Source: BSCC 2.4

RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

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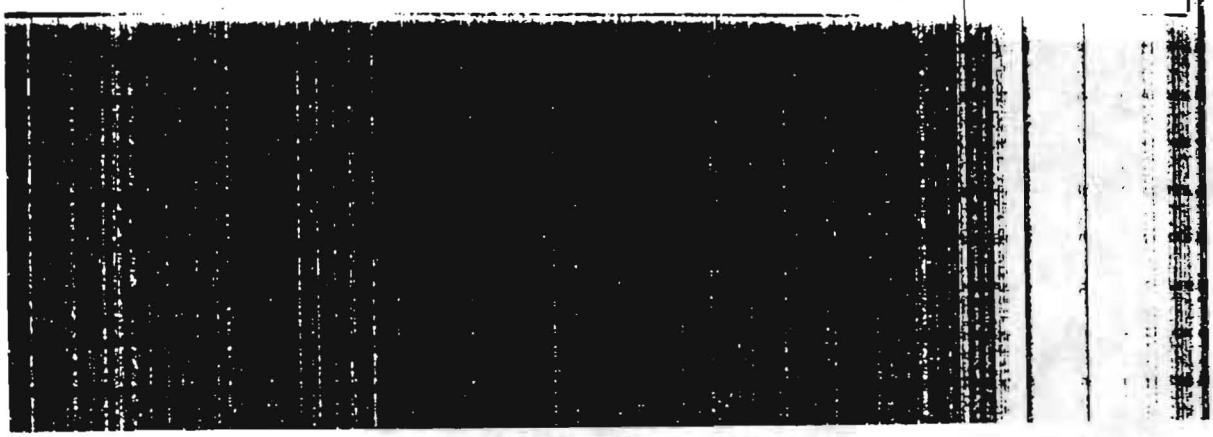
SERVICE NAME: (Untitled)
USOC: C.2.1
Tandem Switching Function - Total per MOU

TOTAL UNIT INVESTMENT	$0.000021
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000002
Cost of Money (11.25%)	$0.000001
Income Tax Expense	$0.000001
Total (LN18 + LN19 + LN20)	$0.000004
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000001
Other Expense	$0.000000
Ad Valorem Tax	$0.000000
Total (LN24 + LN25 + LN26)	$0.000001
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000005
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000005
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2208

Source: BSCC 2.4



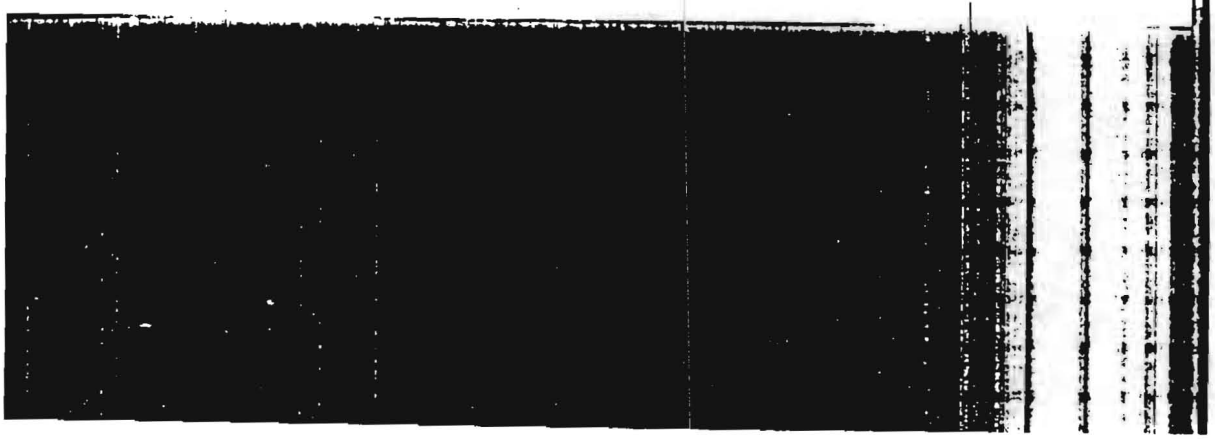
RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: C2J2
Tandem Trunk Port - Shared - Total per MOU

TOTAL UNIT INVESTMENT		$0.000149
INVESTMENT RELATED CAPITAL COSTS		
	Depreciation Expense	$0.000014
	Cost of Money (11.25%)	$0.000006
	Income Tax Expense	$0.000004
	Total (LN18 + LN19 + LN20)	$0.000027
INVESTMENT RELATED OPERATING EXPENSES		
	Plant Specific Expense	$0.000004
	Other Expense	$0.000001
	Ad Valorem Tax	$0.000001
	Total (LN24 + LN25 + LN26)	$0.000006
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)		$0.000033
NON-INVESTMENT RELATED UNIT COSTS		$0.000000
TOTAL UNIT COSTS (LN31 + LN33)		$0.000033
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)		0.2208

Source: BSCC 2.4



RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: D.1.1
Common Transport - Total per Mile, per MOU

TOTAL UNIT INVESTMENT	$0.000210
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000026
Cost of Money (11.25%)	$0.000013
Income Tax Expense	$0.000006
Total (LN18 + LN19 + LN20)	$0.000044
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000003
Other Expense	$0.000001
Ad Valorem Tax	$0.000002
Total (LN24 + LN25 + LN26)	$0.000006
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000051
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000051
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2403

Source: BSCC 2.4

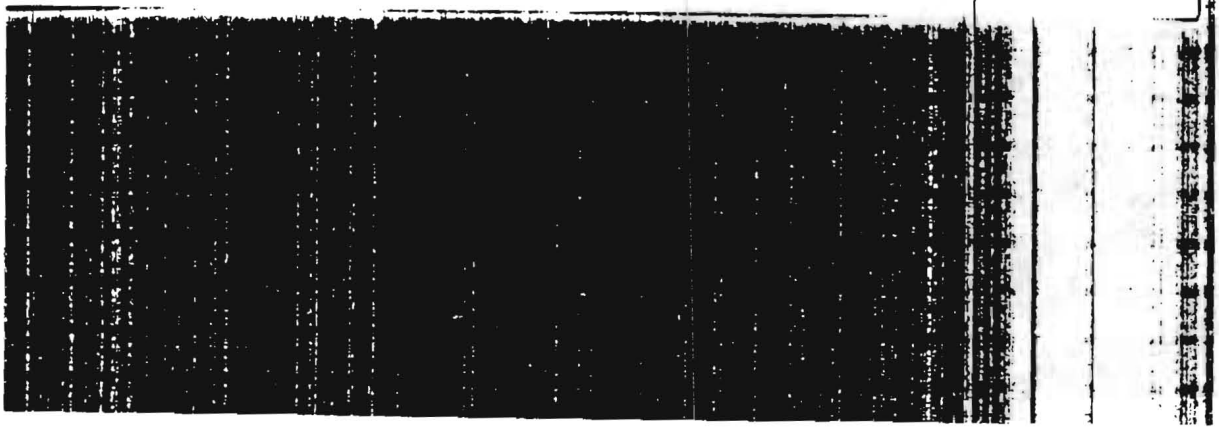
RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: D.1.2
Common Transport - Facilities Termination Total per MOU

TOTAL UNIT INVESTMENT	$0.000821
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000063
Cost of Money (11.25%)	$0.000045
Income Tax Expense	$0.000021
Total (LN18 + LN19 + LN20)	$0.000148
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000015
Other Expense	$0.000004
Ad Valorem Tax	$0.000008
Total (LN24 + LN25 + LN26)	$0.000027
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000175
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000175
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2132

Source: BSCC 2.4



BellSouth Cost Calculator 2.4 - Element Summary Report

Study Name:	IA(Flat Rate)
State:	BellSouth
Scenario:	Clec ISP 76.825
Study Type:	FCC

Cost Element	Description	Recurring	Non Recurring	Non-Recurring First	Non-Recurring Additional	Non-Recurring Initial	Non-Recurring Subsequent
C.1.1	End Office Switching Function, Total Per MOU	$0.000724					
C.1.2	End Office Trunk Port - Shared - Total per MOU	$0.000233					
C.2.1	Tandem Switching Function - Total per MOU	$0.000003					
C.2.2	Tandem Trunk Port - Shared - Total per MOU	$0.000244					
D.1.1	Common Transport - Total per Mile, per MOU	$0.000001					
D.1.2	Common Transport - Facilities Termination Total per MOU	$0.000201					

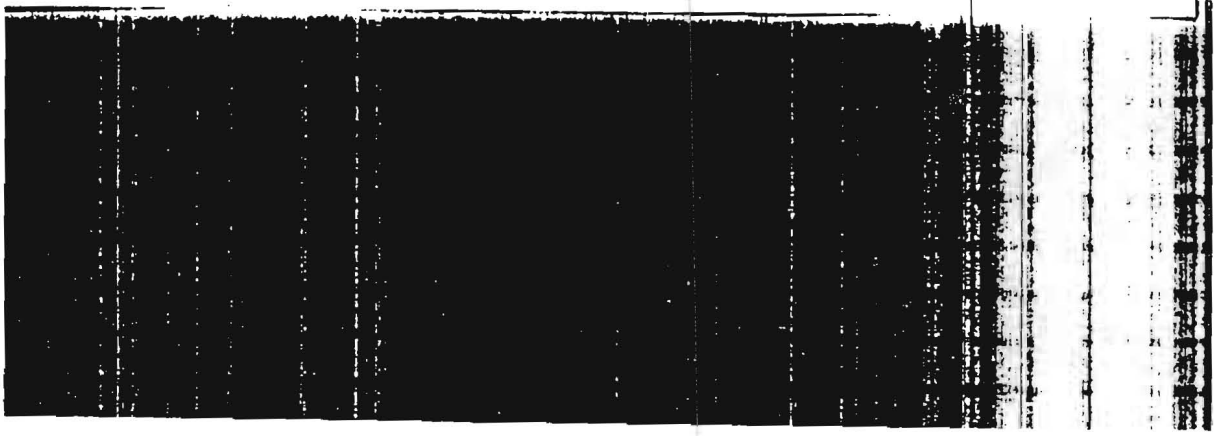
RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: C.1.1
End Office Switching Function, Total Per MOU

TOTAL UNIT INVESTMENT	$0.003284
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000319
Cost of Money (11.25%)	$0.000184
Income Tax Expense	$0.000087
Total (LN18 + LN19 + LN20)	$0.000591
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000089
Other Expense	$0.000014
Ad Valorem Tax	$0.000030
Total (LN24 + LN25 + LN26)	$0.000133
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000724
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000724
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2206

Source: BSCC 2.4



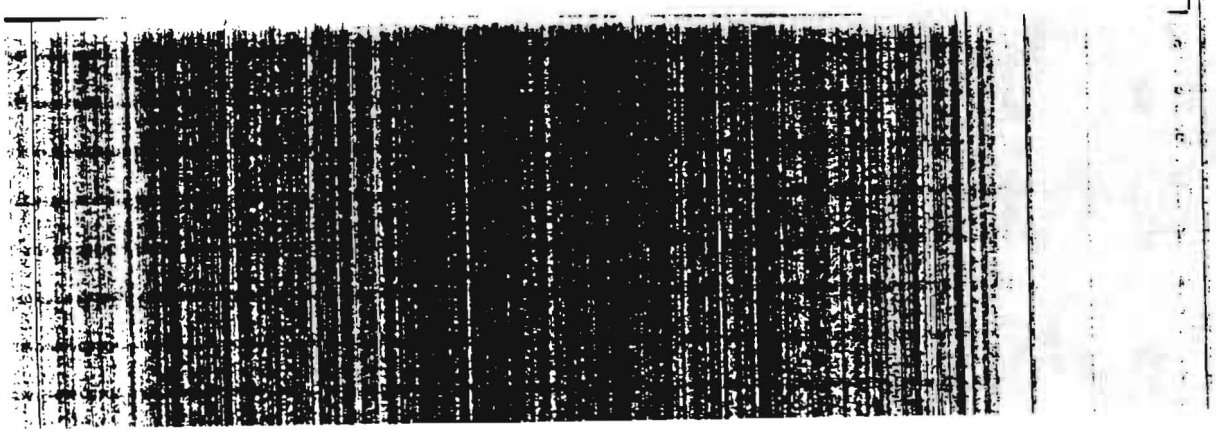
RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: C.1.2
End Office Trunk Port - Shared - Total per MOU

TOTAL UNIT INVESTMENT	$0.001057
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000103
Cost of Money (11.25%)	$0.000059
Income Tax Expense	$0.000028
Total (LN18 + LN19 + LN20)	$0.000190
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000029
Other Expense	$0.000005
Ad Valorem Tax	$0.000010
Total (LN24 + LN25 + LN26)	$0.000043
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000233
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000233
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2208

Source: BSCC 2.4



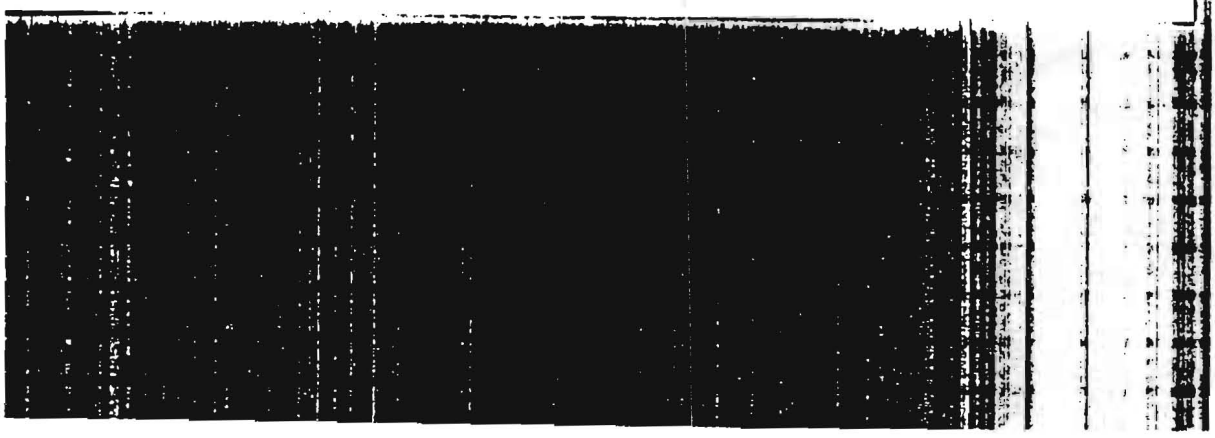
RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: C.2.1
Tandem Switching Function - Total per MOU

TOTAL UNIT INVESTMENT	$0.000016
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000002
Cost of Money (11.25%)	$0.000001
Income Tax Expense	$0.000000
Total (LN18 + LN19 + LN20)	$0.000003
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000000
Other Expense	$0.000000
Ad Valorem Tax	$0.000000
Total (LN24 + LN25 + LN26)	$0.000001
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000003
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000003
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2206

Source: BSCC 2.4



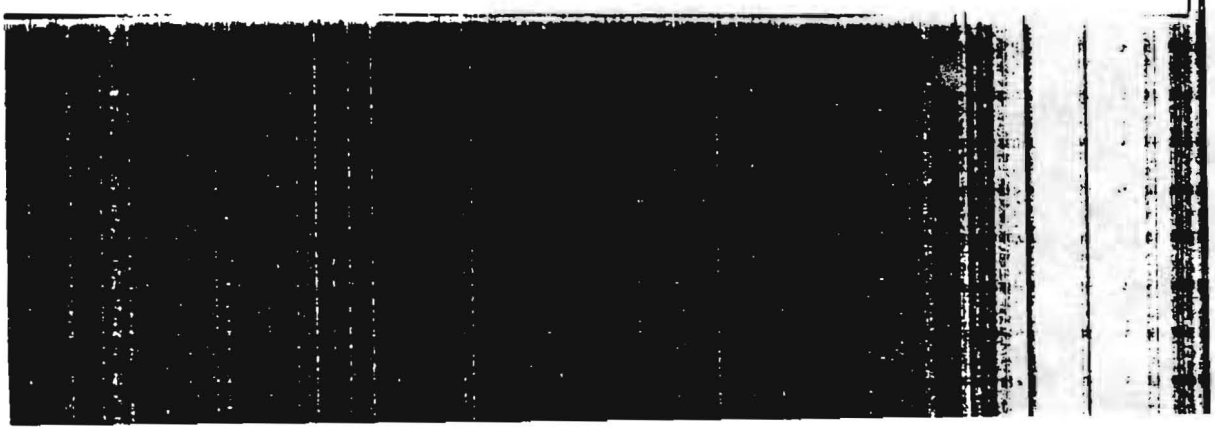
RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: C.2.2
Tandem Trunk Port - Shared - Total per MOU

TOTAL UNIT INVESTMENT	$0.001108
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000108
Cost of Money (11.25%)	$0.000062
Income Tax Expense	$0.000030
Total (LN18 + LN19 + LN20)	$0.000198
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000030
Other Expense	$0.000005
Ad Valorem Tax	$0.000010
Total (LN24 + LN25 + LN26)	$0.000045
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000244
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000244
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2206

Source: BSCC 2.4



RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
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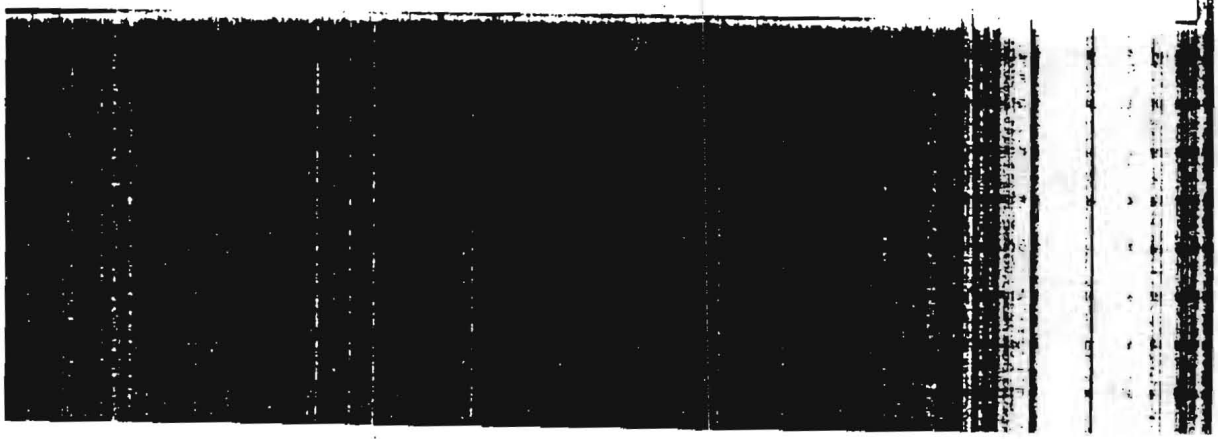
SERVICE NAME: (Untitled)
USOC: D.1.1
Common Transport - Total per Mile, per MOU

TOTAL UNIT INVESTMENT	$0.000003
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000000
Cost of Money (11.25%)	$0.000000
Income Tax Expense	$0.000000
Total (LN18 + LN19 + LN20)	$0.000001
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000000
Other Expense	$0.000000
Ad Valorem Tax	$0.000000
Total (LN24 + LN25 + LN26)	$0.000000
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000001
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000001
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.1815

Source: BSCC 2.4



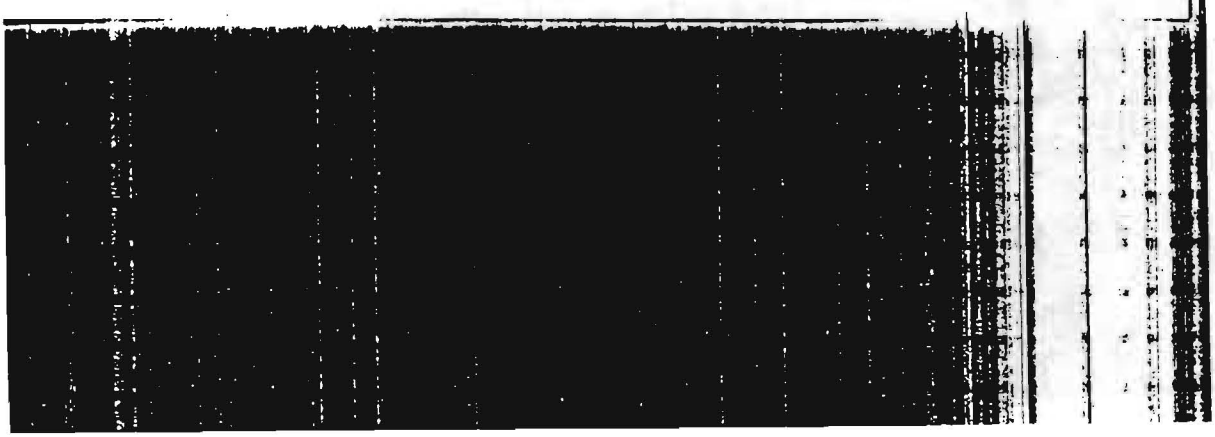
RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

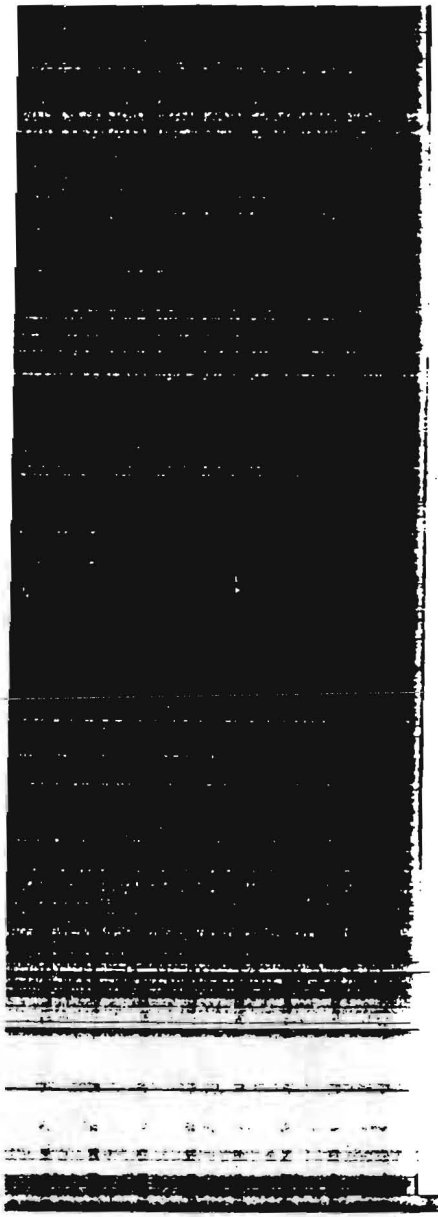
APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: D.1.2
Common Transport - Facilities Termination Total per MOU

TOTAL UNIT INVESTMENT	$0.000943
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000085
Cost of Money (11.25%)	$0.000051
Income Tax Expense	$0.000024
Total (LN18 + LN19 + LN20)	$0.000170
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000018
Other Expense	$0.000004
Ad Valorem Tax	$0.000009
Total (LN24 + LN25 + LN26)	$0.000031
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000201
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000201
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2132

Source: BSCC 2.4





BellSouth Cost Calculator 2.4 - Element Summary Report

Study Name:	IA(Flat Rate)
State:	BellSouth
Scenario:	BST ISP 76.825
Study Type:	FCC

Cost Element	Description	Recurring	Non Recurring	Non-Recurring First	Non-Recurring Additional	Non-Recurring Initial	Non-Recurring Subsequent
C.1.1	End Office Switching Function, Total Per MOU	$0.000724					
C.1.2	End Office Trunk Port - Shared - Total per MOU	$0.000233					
C.2.1	Tandem Switching Function - Total per MOU	$0.000003					
C.2.2	Tandem Trunk Port - Shared - Total per MOU	$0.000244					
D.1.1	Common Transport - Total per Mile, per MOU	$0.000001					
D.1.2	Common Transport - Facilities Termination Total per MOU	$0.000119					

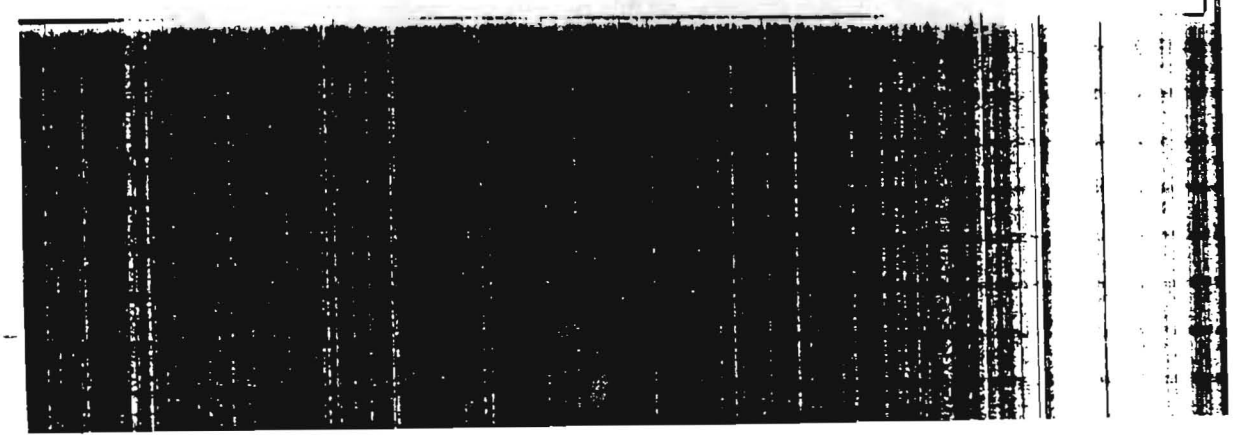
RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: C.1.1
End Office Switching Function, Total Per MOU

TOTAL UNIT INVESTMENT	$0.003284
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000319
Cost of Money (11.25%)	$0.000184
Income Tax Expense	$0.000087
Total (LN18 + LN19 + LN20)	$0.000591
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000089
Other Expense	$0.000014
Ad Valorem Tax	$0.000030
Total (LN24 + LN25 + LN26)	$0.000133
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000724
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000724
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2206

Source: BSCC 2.4



RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

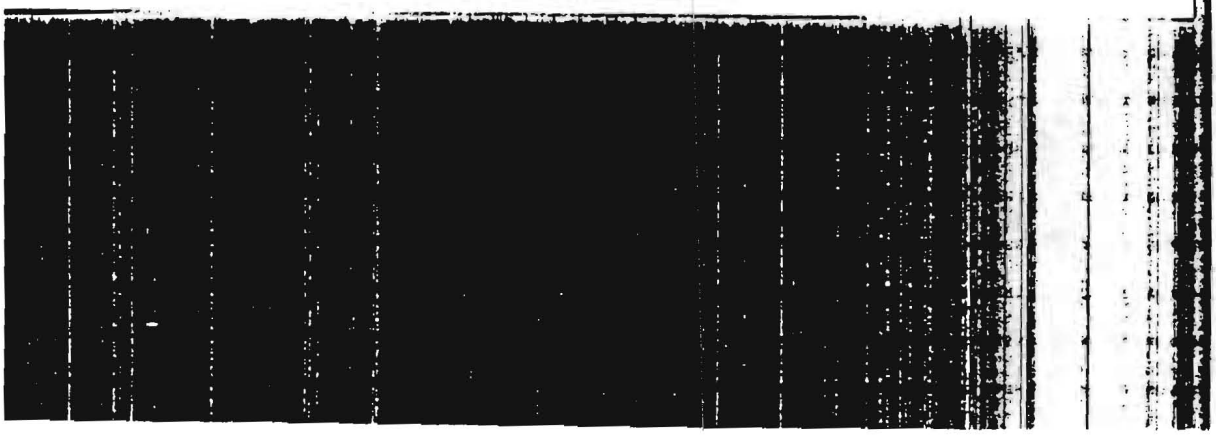
APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: C.1.2
End Office Trunk Port - Shared - Total per MOU

TOTAL UNIT INVESTMENT	$0.001057
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000103
Cost of Money (11.25%)	$0.000059
Income Tax Expense	$0.000028
Total (LN18 + LN19 + LN20)	$0.000190
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000029
Other Expense	$0.000005
Ad Valorem Tax	$0.000010
Total (LN24 + LN25 + LN26)	$0.000043
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000233
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000233
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2206

Source: BSCC 2.4

Page 1



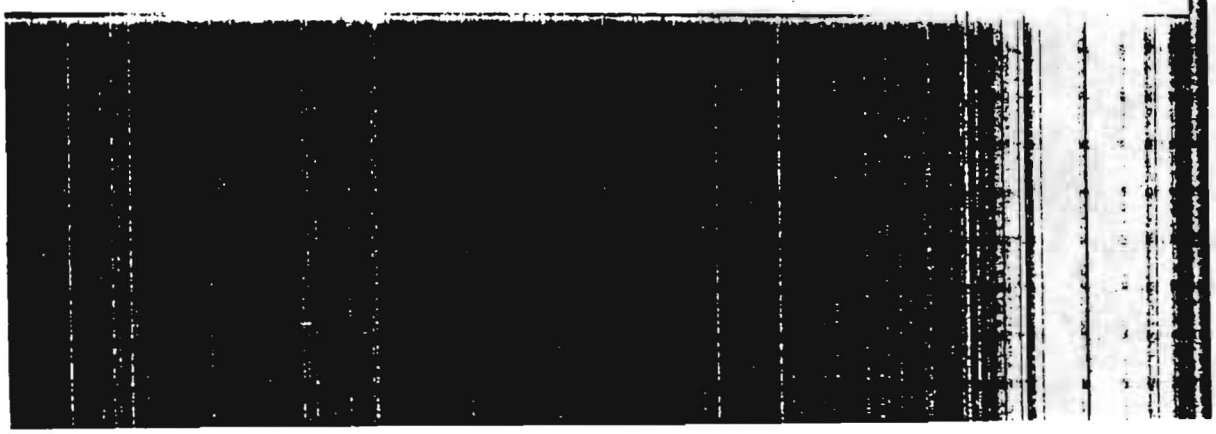
RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: C.2.1
Tandem Switching Function - Total per MOU

TOTAL UNIT INVESTMENT	$0.000016
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000002
Cost of Money (11.25%)	$0.000001
Income Tax Expense	$0.000000
Total (LN18 + LN19 + LN20)	$0.000003
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000000
Other Expense	$0.000000
Ad Valorem Tax	$0.000000
Total (LN24 + LN25 + LN26)	$0.000001
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000003
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000003
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2208

Source: BSCC 2.4



RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: C2J
Tandem Trunk Port - Shared - Total per MOU

TOTAL UNIT INVESTMENT	$0.001108
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000108
Cost of Money (11.25%)	$0.000062
Income Tax Expense	$0.000030
Total (LN18 + LN19 + LN20)	$0.000199
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000030
Other Expense	$0.000006
Ad Valorem Tax	$0.000010
Total (LN24 + LN25 + LN26)	$0.000046
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000244
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000244
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2206

Source: BSCC 2.4

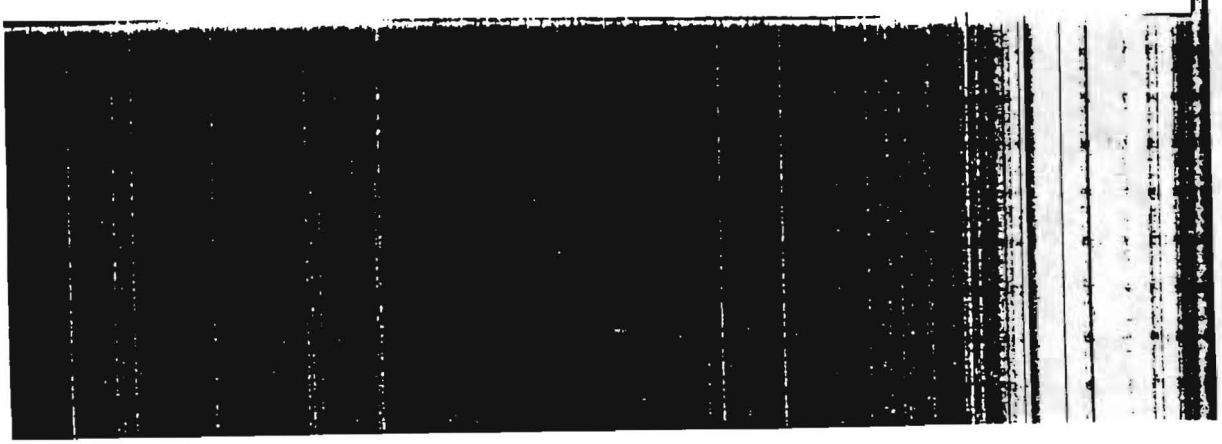
RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: D.1.1
Common Transport - Total per Mile, per MOU

TOTAL UNIT INVESTMENT	$0.000003
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000000
Cost of Money (11.25%)	$0.000000
Income Tax Expense	$0.000000
Total (LN18 + LN19 + LN20)	$0.000001
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000000
Other Expense	$0.000000
Ad Valorem Tax	$0.000000
Total (LN24 + LN25 + LN26)	$0.000000
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000001
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000001
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.1815

Source: BSCC 2.4



RECURRING UNIT COST DEVELOPMENT -
RATE ELEMENT SPECIFIC COSTS

APPENDIX B
WORKPAPER 2
PAGE 1 OF 1

SERVICE NAME: (Untitled)
USOC: D.1.2
Common Transport - Facilities Termination Total per MOU

TOTAL UNIT INVESTMENT	$0.000559
INVESTMENT RELATED CAPITAL COSTS	
Depreciation Expense	$0.000056
Cost of Money (11.25%)	$0.000030
Income Tax Expense	$0.000014
Total (LN18 + LN19 + LN20)	$0.000101
INVESTMENT RELATED OPERATING EXPENSES	
Plant Specific Expense	$0.000011
Other Expense	$0.000002
Ad Valorem Tax	$0.000005
Total (LN24 + LN25 + LN26)	$0.000018
TOTAL INVESTMENT RELATED UNIT COSTS (LN21 + LN27)	$0.000119
NON-INVESTMENT RELATED UNIT COSTS	$0.000000
TOTAL UNIT COSTS (LN31 + LN33)	$0.000119
RATIO OF UNIT COSTS TO INVESTMENT (LN37 / LN14)	0.2132

Source: BSCC 2.4

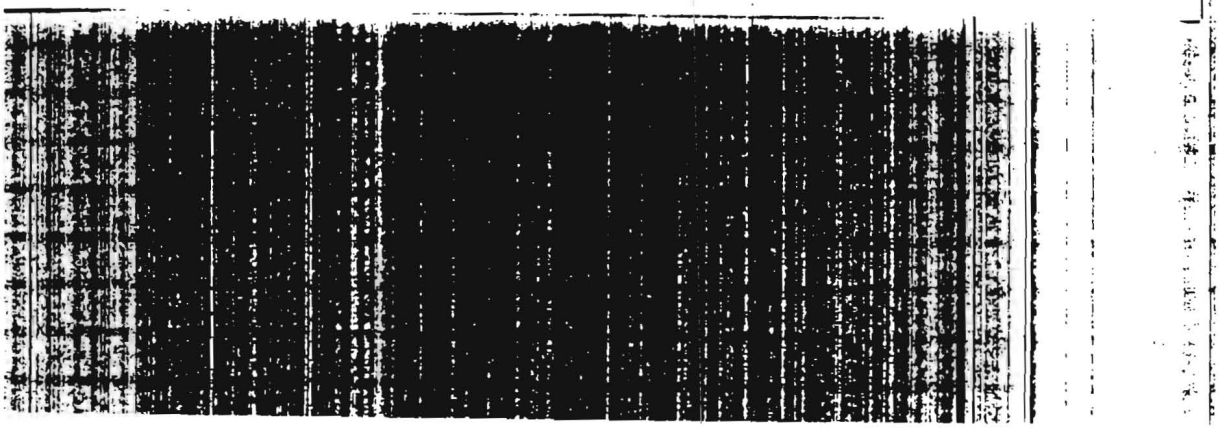


EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 9

PARTY: Sprint-Florida Incorporated

DESCRIPTION:

1. Sprint's responses to AT&T's First Set of Interrogatories and Request for Production of Documents.

PROFFERING PARTY: STAFF

I.D. # Stip-9

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 000075-TP EXHIBIT NO. 9
COMPANY/ WITNESS: FPSC Staff
DATE: 3-7 4 8-01

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to Compensate carriers for exchange of traffic Subject to Section 251 of the Telecommunications Act of 1996.	))))	Docket No. 000075-TP Filed: December 22, 2000

SPRINT'S ANSWERS TO AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S FIRST SET OF INTERROGATORIES TO SPRINT-FLORIDA INCORPORATED

Pursuant to Rule 28-106.206, Florida Administrative Code, and Rule 1.340, Florida Rules of Civil Procedure, Sprint-Florida Incorporated (Sprint) hereby provides the following answers to AT&T Communications of the Southern States, Inc.'s First Set of Interrogatories.

Sprint – Florida, Incorporated
Docket No. 000075-TP
AT&T's First Set of Interrogatories
November 22, 2000
Interrogatory No. 1

1. Please state the name, address and position (job title) with Sprint of each person providing responses to these Interrogatories.

ANSWER: The responses were prepared by:

John M. Felz
Director - State Regulatory
6360 Sprint Parkway
Overland Park, KS 66251

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

2. **Please provide the following data for your retail access lines for the end of each year, 1996 through 1999. If the monthly rates for a given service listed below vary by exchange (e.g., due to rate group classifications), please break down the access line count for the service by each such distinct rate.**

   a. Primary residence lines - flat rate.
   b. Primary residence lines - measured rate.
   c. Additional (non-primary) residence lines. Please break down by type of service (e.g., measured rate).
   d. Single-line business lines - measured rate (untimed).
   e. Single-line business lines - measured rate (timed).

ANSWER: Notwithstanding previously filed objections, Sprint-Florida, Inc. provides the following response:

1996 access line information is not available in the level of detail necessary to provide separate access line counts by rate group as requested.

a. Please see the attached worksheet for 1997 through 1999 residence - flat rate access line counts by rate group. Sprint does not maintain historical information that would allow separate identification of primary and non-primary residence lines by rate group as requested.

b. Please see the attached worksheet for 1997 through 1999 residence - measured rate access line counts by rate group. Sprint does not maintain historical information that would allow separate identification of primary and non-primary measured rate access lines.

c. Sprint does not maintain historical information that would allow separate identification of primary and non-primary residence lines by rate group. Therefore, the requested information is not available.

d. Sprint does not have any single line business customers subscribing to measured rate (untimed) service.

e. Sprint does not have any single-line business customers subscribing to measured rate (timed) service.

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

Company	Rate Group	1999		1998		1997	
		Residence Flat Rate	Residence Measured	Residence Flat Rate	Residence Measured	Residence Flat Rate	Residence Measured
Sprint/Central Telephone	1	16,159	694	15,335	721	14,706	670
	2	39,816	1,187	37,552	1,328	35,866	1,242
	3	6,250	110	5,946	123	5,945	86
	4	4,016	263	3,524	259	3,129	225
	5	68,976	2,244	65,652	2,442	62,678	2,353
	6	129,778	1,753	121,946	1,964	116,916	1,801
Total Sprint/Centel		264,995	6,251	249,955	6,837	239,240	6,377
Sprint/United Telephone	1	95,981	8,314	91,199	9,208	88,313	9,160
	2	48,885	4,263	46,319	4,610	44,586	4,509
	3	215,578	12,484	202,610	13,676	192,176	13,674
	4	354,253	21,743	328,532	23,335	309,440	22,508
	5	228,519	17,157	213,619	18,196	204,033	17,483
	6	218,196	4,567	207,583	5,351	198,159	5,359
Total Sprint/United		1,161,412	68,528	1,089,862	74,376	1,036,707	72,693
Total Sprint Florida		1,426,407	74,779	1,339,817	81,213	1,275,947	79,070

ATTACHMENT 2

Sprint – Florida, Incorporated
Docket No. 000075-TP
AT&T's First Set of Interrogatories
November 22, 2000
Interrogatory No. 3

3. Provide the following usage and revenue data for each year from 1996-1999 for your Florida service territory.

a. Total local minutes. For any year in which you have excluded minutes associated with ISP-bound calls from "total local minutes", please so state and separately provide the quantity of (non-toll) minutes associated with ISP-bound calls.

b. Total local messages (associated with, e.g., untimed business measured rate service). For any year in which you have excluded messages associated with ISP bound calls from "total local messages", please so state and separately provide the quantity of messages associated with ISP-bound calls.

ANSWER: Notwithstanding previously filed objections, Sprint provides the following response:

Sprint has not attempted to separately identify and exclude minutes and messages associated with ISP-bound calls during the timeframe specified in the request.

a. Total local minutes are:

1996	14,426,046,240
1997	18,985,320,576
1998	29,685,159,154
1999	35,131,496,448

b. Total local messages are:

1996	3,858,214,000
1997	3,737,423,000
1998	5,751,834,000
1999	6,244,957,000

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

Sprint – Florida, Incorporated
Docket No. 000075-TP
AT&T's First Set of Interrogatories
November 22, 2000
Interrogatory No. 4

4. **Provide the following usage and revenue information for the year 1999 (or most recent year available), for primary residence lines - measured rate.**

   a. **Total billed local minutes.**

   b. **Total unbilled local minutes (i.e., minutes included within end users' call allowances so that no per-call or per-minute charges apply).**

   c. **Total revenues generated from billed minutes (i.e., generated by local usage charges applied on a per-call or per-minute basis).**

ANSWER: Notwithstanding previously filed objections, Sprint provides the following response:

a. Sprint's measured rate service is billed based on number of messages, not minutes. As a result, Sprint does not track minutes for measured rate service. The number of messages billed for 1999 was 12,563,251. Sprint does not maintain information that would allow for identification of the measured service messages separately between primary and non-primary lines.

b. Sprint's measured rate service is billed based on number of messages, not minutes. As a result, Sprint does not track minutes for measured rate service. Sprint does not separately track the number of messages which are included within end users' call allowance.

c. The total usage charges for residence measured service for 1999 were $1,256,325. Sprint does not maintain information that would allow for identification of the measured service revenues separately between primary and non-primary lines.

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

Sprint – Florida, Incorporated
Docket No. 000075-TP
AT&T's First Set of Interrogatories
November 22, 2000
Interrogatory No. 5

5. **Provide the following usage and revenue information for the year 1999 (or most recent year available), for additional residence lines - measured rate.**

a. Total billed local minutes.

b. Total unbilled local minutes (i.e., minutes included within end users' call allowances so that no per-call or per-minute charges apply).

c. Total revenues generated from billed minutes (i.e., generated by local usage charges applied on a per-call or per-minute basis).

ANSWER: Notwithstanding previously filed objections, Sprint provides the following response:

Sprint does not maintain information that would allow for identification of the measured service messages or revenues separately between primary and non-primary lines. See response to request 4.

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

Sprint – Florida, Incorporated
Docket No. 000075-TP
AT&T's First Set of Interrogatories
November 22, 2000
Interrogatory No. 6

6. Provide the following usage and revenue information for the year 1999 (or most recent year available), for single-line business lines - measured rate.

a. Total billed local minutes.

b. Total unbilled local minutes (i.e., minutes included within end users' call allowances so that no per-call or per-minute charges apply).

c. Total revenues generated from billed minutes (i.e., generated by local usage charges applied on a per-call or per-minute basis).

ANSWER: Notwithstanding previously filed objections, Sprint provides the following response:

Sprint does not have any single line business customers subscribing to measured rate service. Therefore, there is no information to provide.

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

Sprint – Florida, Incorporated
Docket No. 000075-TP
AT&T's First Set of Interrogatories
November 22, 2000
Interrogatory No. 7

7. **At any time since January 1996, has Sprint attempted to separately identify and track ISP-bound calls originated over its end users' access lines? If the answer is yes, describe all such monitoring which Sprint has performed, and provide all traffic statistics which Sprint compiled therein concerning ISP-bound traffic.**

ANSWER: Sprint has not attempted to separately identify and track ISP-bound calls originated over its end users' access lines during the timeframe specified in the request.

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

DATED this 22nd day of December, 2000.

Respectfully submitted,

Susan S. Masterton
Sprint-Florida Incorporated
P.O. Box 2214
Tallahassee, FL 32316-2214
(850) 599-1560

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to Compensate carriers for exchange of traffic Subject to Section 251 of the Telecommunications Act of 1996.	)	Docket No. 000075-TP Filed: December 22, 2000

SPRINT'S RESPONSE TO AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S FIRST REQUEST FOR PRODUCTION OF DOCUMENTS

Pursuant to Rule 28-106.206, Florida Administrative Code, and Rule 1.340, Florida Rules of Civil Procedure, Sprint-Florida Incorporated (Sprint) by and through its undersigned counsel, hereby respond to AT&T Communications of the Southern States, Inc.'s First Request for Production of Documents as set forth below.

Sprint – Florida, Incorporated
Docket No. 000075-TP
AT&T's First Set of Requests
For Production of Documents
November 22, 2000
Item No. 1

1. **Please provide the most recent cost study that you have filed with the Florida Public Service Commission in support of your retail basic exchange service rates. Please indicate the Florida Public Service Commission proceeding in which the study was submitted and the filing date.**

RESPONSE: Sprint has not filed a cost study specifically supporting its retail basic exchange service rates. Sprint's current retail basic exchange service rates resulted from general rate of return proceedings and were not supported by service specific cost studies. Therefore, there are no documents that are responsive to this request.

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

2. **If you have any other cost studies for the provision of retail basic exchange service within your service territory that are more recent than that provided in response to Document Request No. 1, please provide all such studies.**

RESPONSE: In response to Commission directive in a 1998 proceeding (980000A-SP), Sprint did file a TSLRIC study for its basic exchange service. This cost study was filed in the context of a Commission proceeding undertaken to review the fair and reasonable rate for local service. In addition to the cost study, Sprint and other ILECs were required to file a contribution analysis which compared rates to TSLRIC costs for local service.

However, the cost study did not purport to support Sprint's retail basic exchange service rates. In fact, the cost study demonstrates that Sprint's basic retail service rates do not cover the TSLRIC costs of providing the service.

Sprint also completed a cost study of the costs of basic local service in Docket 960896-TP. This proceeding was undertaken by the Commission to determine the costs of basic local service for the purposes of evaluating universal service funding. Sprint's cost study in this proceeding did not purport to support Sprint's retail basic exchange service rates.

AT&T was a party to both of the Commission proceedings described above and had previously received copies of Sprint's cost studies filed in these dockets.

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

Sprint – Florida, Incorporated
Docket No. 000075-TP
AT&T's First Set of Requests
For Production of Documents
November 22, 2000
Item No. 3

3. Provide a copy of each study, report, analysis or memorandum prepared by you or on your behalf which estimates or otherwise quantifies the costs of terminating ISP-bound traffic.

RESPONSE: Sprint has not conducted any study, report or analysis that estimates or otherwise quantifies the cost of terminating ISP-bound traffic only.

INFORMATION PROVIDED BY: John M. Felz
Director - State Regulatory

DATED this 22nd day of December, 2000.

Respectfully submitted,

Susan S. Masterton
Sprint-Florida Incorporated
P.O. Box 2214
Tallahassee, FL 32316-2214
(850) 599-1560

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 10

PARTY: Global NAPs, Inc.

DESCRIPTION:

1. Global NAPs' responses to BellSouth's First Set of Interrogatories, Items 13-28.

PROFFERING PARTY: STAFF

I.D. # Stip-10

Interrogatory:

13. For the Florida ISP customers identified in response to Interrogatory No. 9, please state, on an annual basis, (a) the total amount GNAPS expects to earn for service to those customers for the years 2001 and 2002; (b) the amounts of any credits, rebate, or adjustments expected to be given to such customers for the years 2001 and 2002; and (c) the total amount of revenue GNAPS expects to collect from such customers for the years 2001 and 2002.

Please refer to objection to this question dated February 12, 2001.

Interrogatory:

14. Please provide GNAPS's total dollar investment in Florida, including total dollar investment in switches, outside plant, and support assets.

Objection:

Please refer to objection to this question dated February 12, 2001.

Interrogatory:

15. Please provide the total number of switches GNAPS has deployed in Florida.

Please refer to objection to this question dated February 12, 2001.

Interrogatory:

16. Identify any cost study or other data or documents concerning the actual cost to GNAPS to transport ISP traffic from the point of interconnection with BellSouth to the ISP server being served by a GNAPS switch.

Please refer to objection to this question dated February 12, 2001.

Interrogatory:

17. Does GNAPS contend that there is a difference between the place where a call "terminates" for jurisdictional purposes and the place where a call "terminates" for reciprocal compensation purposes? If the answer to the foregoing is in the affirmative, please: (a) explain in detail the distinction between call termination for jurisdictional and reciprocal compensation purposes; (b) state the date and describe the circumstances when GNAPS first concluded that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (c) state the date and describe the circumstances when GNAPS first stated publicly that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (d) identify all

documents that refer or relate to or support a distinction between call termination for jurisdictional and reciprocal compensation purposes; (e) identify all internal GNAPS memoranda or other documents that discuss, relate to or touch upon the issue of whether reciprocal compensation may be owed for calls delivered to ISPs.

Please refer to objection to this question dated February 12, 2001.

Without waiving that objection, Global NAPs states as follows:

To answer the first part of this question, and subpart (a), requires a definition of the term "call." The term "call" does not have a definition in the Communications Act. However, the term appears in various sections of Title II, including Section 252(d)(2) regarding an appropriate rate for reciprocal compensation. Based on its usage there and throughout Title II, we take the term "call" to mean a circuit-switched connection between two stations connected to the public switched telephone network and addressable by means of numbers within the North American Numbering Plan.

The beginning and end points of a "call" are not directly relevant "for jurisdictional purposes," that is, for determining whether regulatory jurisdiction resides with the Federal Communications Commission or a state. Under 47 U.S.C. § 153(52), the relevant term is "wire communication," which is the "transmission of writing, signs, signals, pictures and sounds of all kinds by aid of wire, cable or other like connection between the points of origin and reception of such transmission, including all instrumentalities, facilities, apparatus and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission." All "calls" are also "communications." But many "communications" are not "calls."

In a normal, garden-variety telephone call, the end points of the call and the end points of the communication are identical. In a call from an end user's modem to an ISP's modem, the "call" in physical terms begins at the end user's modem and ends at the ISP's modem. (Where it begins and ends for billing purposes is a separate issue, determined by the V&H coordinates assigned to the NXX codes of the calling and called parties.) The "communication," which is a much broader term, may or may not continue beyond the ISP's modem, either to the ISP's own servers or further into "the Internet" (*see* 47 U.S.C. § 230(f)(1)) for some portion of the time (usually a relatively small portion) that the two modems are connected.

In these circumstances, the ultimate regulatory jurisdiction over ***the communication*** (which is the relevant statutory term) is determined by the end points of the communication, which, in the case of calls to ISPs, can be various. The end points of ***the call,*** however, do not necessarily correspond to the end points of the communication.

So, to answer the question strictly and literally, there is no difference in where a "call" "terminates" for purposes of reciprocal compensation as opposed to jurisdiction, but where a "call" terminates is not itself relevant to jurisdiction. Indeed, in the case of calls to ISPs, the "call" (relevant to reciprocal compensation) and the "communication" (relevant to jurisdiction) are not identical. Consequently, the "call" can be "local" not only in the literal dialing plan sense

(that is, the NPA-NXX of the called number is covered by the local calling plan associated with the NPA-NXX of the calling number) but also in the sense of where the "call" terminates, even though the "communication" is ultimately under the FCC's jurisdiction.

Matters are further complicated, however, by the FCC's repeated determinations that (a) it has jurisdiction over ISP-bound calling, but (b) such calling is nonetheless to be treated as equivalent to "local" calling for any number of regulatory purposes. Indeed, the FCC has routinely and repeatedly ***treated*** ISP-bound traffic as local and intrastate in every regulatory context in which the question has arisen:

Access Charges: The ESP Exemption, as crafted in 1983, was designed to allow ESPs to obtain access to the local exchange network by purchasing intrastate-tariffed local business lines. As both the Commission and the courts have observed, the purpose and effect of this exemption is to allow ESPs/ISPs to be reached by means of local calls from end users. *See* Access Charge Reform, CC Docket No. 96-262, *First Report and Order,* 12 FCC Rcd 15982 (1997) at ¶¶ 341-45, *aff'd sub nom. Southwestern Bell Tel. Co. v. FCC*, 153 F.3d 523 541-43 (8th Cir. 1998). *See also* response to interrogatories 26-28 for further discussion of access charges.

Separations. ILECs are required to treat the costs they incur in handling ISP-bound calls as jurisdictionally intrastate costs. *See* Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Inter-Carrier Compensation for ISP-Bound Traffic, *Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 99-68,* CC Docket Nos. 96-98 and 99-68 (released February 26, 1999) ("*Declaratory Ruling*") at ¶ 36. *See also* Letter to Don Evans, Vice President - Regulatory Advocacy, Bell Atlantic from Lawrence E. Strickling, Chief, Common Carrier Bureau, Re: Separations Treatment of Internet-Related Reciprocal Compensation (July, 29, 1999); Letter to Dale Robertson, Sr. Vice President, SBC Communications, Inc. from Lawrence E. Strickling, Chief, Common Carrier Bureau, Re: Separations Treatment of ISP-Bound Traffic (May, 18, 1999).

Universal Service. The FCC held that ISPs provide information services, not telecommunications services, and are therefore, for universal service purposes, end users without universal service contribution obligations. *See Declaratory Ruling* at ¶¶ 4 & n.8, 13; In the Matter of Federal-State Joint Board on Universal Service, *Report To Congress*, 13 FCC Rcd 11501 (1998) at ¶ 13 ("We conclude ... that the categories of 'telecommunications service' and 'information service' in the 1996 Act are ***mutually exclusive***."). *See id.* at ¶ 21 (footnote omitted) ("We find ... that Congress intended to maintain a regime in which information service providers are not subject to regulation as common carriers merely because they provide their services 'via telecommunications'.")

Interconnection Rights. Under Section 251, "telecommunications carriers" have certain rights against ILECs that non-carriers lack. When confronted with the question of whether ISPs should be granted Section 251 interconnection rights, the Commission said "no," because these entities were not carriers. *See* Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, *First Report and Order*, 11 FCC Rcd 15499(1996) ("*Local Competition Order*") at ¶ 995. This further cements that the FCC has traditionally treated ISP-bound calls as local in nature, in that it cements the ISPs' status as customers, not carriers.

Furthermore, the courts have rejected the notion that the interstate status of some ISP-bound calls is relevant to the status of those calls as subject to compensation under Section 251(b)(5). The one and only time that the FCC tried to hold that ISP-bound calls were ***not*** "local" on grounds that they were jurisdictionally interstate (in the February 1999 *Declaratory Ruling*, cited above), the D.C. Circuit concluded that the FCC's approach was "intuitively backwards" and vacated the decision (rendering it of no further legal force or effect) "for want of reasoned decisionmaking." *Bell Atlantic v. FCC,* 206 F.3d 1 (D.C. Cir. 2000). The court was perfectly content with the FCC's assertion that these calls were jurisdictionally interstate, but held that this conclusion was simply not related to the conclusion that the same calls are not "local" for purposes of Section 251(b)(5).

The only sensible reading of the state of the law at this point is that ISP-bound calls may indeed be jurisdictionally interstate, but that fact — if it is a fact — has no bearing on whether they should be subject to the reciprocal compensation provisions of Section 251(b)(5). That is to be determined, as laid out by the D.C. Circuit, on the basis of whether it makes more sense, in light of the purposes of the statute, to subject calls to ISPs to the "access charge" model of compensation (which would put ISPs in the position of IXCs) or the "reciprocal compensation" model of compensation (which would put ISPs in the position of end users). We submit that the only rational answer in light of the other regulatory rulings relating to ISPs, stated above, is that the "reciprocal compensation" model is correct.

As to subparts (b)-(e), Global NAPs is not aware of ever having taken any position regarding the claim that "there was a distinction between call termination for jurisdictional and reciprocal compensation purposes;" as noted above, "call termination" per se is not relevant to any "jurisdictional purposes." In this regard, the question simply reflects a failure to consider the relevant definitions (and lack thereof, in the case of "calls") in the U.S. Code. Like many industry participants, Global NAPs' precise views of the proper legal, policy and factual analysis applicable to ISP-bound calls has evolved over time, both in response to additional factual inquiry and in response to various (at least at the time) binding rulings from regulators.

Interrogatory:

18. Has GNAPS provided telecommunications services to any person with whom GNAPS has entered into any arrangement or agreement that involves the sharing of reciprocal compensation received by GNAPS from BellSouth? If the answer to the foregoing is in the affirmative, identify the person, describe the telecommunications services GNAPS has provided, and identify all documents referring or relating to such telecommunications services.

Please refer to objection to this question dated February 12, 2001.

Interrogatory:

22. Fully describe all of GNAPS's facilities, including switches, within Florida, including the manufacturer and model information.

Please refer to objection to this question dated February 12, 2001.

Interrogatory:

23. Does GNAPS own or have an interest in an ISP? Is GNAPS affiliated in any way with an ISP (other than a customer relationship)? If so, explain in full the nature of such interest or affiliation.

Please refer to objection to this question dated February 12, 2001.

Interrogatory:

24. State the actual cost incurred by GNAPS to transport ISP traffic from the point of interconnection with BellSouth to the ISP server being served by a GNAPS switch.

Please refer to objection to this question dated February 12, 2001.

Interrogatory:

25. State the number of resold lines GNAPS has in Florida, broken down by residence and business lines, if not provided in response to an earlier interrogatory.

Please refer to objection to this question dated February 12, 2001.

Interrogatory:

26. Will GNAPS admit that ISPs are also enhanced service providers? If not, please provide the basis for GNAPS's position, including any legal authority.

No. The term "enhanced service provider" was a regulatory invention of the FCC prior to the passage of the 1996 Act. The 1996 Act uses the term "information service" to capture essentially the same concept as the prior term "enhanced service." But the statutory term now controls. Internet Service Providers are providers of "information services" under the definitions in the Act, as the FCC expressly held in the April 1998 *Report to Congress.* The use of the term "enhanced service provider" is therefore useful in discussing FCC and related decisions relevant to ISPs prior to the 1996 Act, but simply confuses things if it is applied to post-1996-Act circumstances.

See also responses to interrogatories 17, 27, and 28.

Interrogatory:

27. Will GNAPS admit that enhanced service providers are exchange access users? If not, please provide the basis for GNAPS's position, including any legal authority.

No. Here, the question is confusing a pre-1996-Act term ("enhanced service provider") with the newly defined statutory term "exchange access," defined in 47 U.S.C. § 153(16). The statutory term is defined as "the offering of access to telephone exchange services or facilities ***for the purpose of the origination or termination of telephone toll services***" (emphasis added). "Telephone toll service," in turn, is defined as service between stations in different exchanges for which a separate (toll) charge is assessed. *See* 47 U.S.C. § 153(48). Neither pre-Act "enhanced service providers" nor post-Act "information service" providers (including ISPs) provide "telephone toll service." If they did, they would be telecommunications carriers, as defined in 47 U.S.C. § 153(44). But the FCC in the *Report to Congress* expressly held that the categories of "telecommunications carrier" and "information service provider" are mutually exclusive.

Global NAPs is of course aware that prior to the 1996 Act, as a matter of regulatory policy, the FCC had determined that "enhanced services providers" were users of "access services." But that tells us nothing of value for how things stand following the 1996 Act, because the regulatory term "access service" is much, much broader than the new statutory term "exchange access" referenced in the question. That regulatory definition is contained in section 69.42(b) of the FCC's rules: "access service" means: "services and facilities provided for the origination or termination of any interstate or foreign telecommunications." So it is quite conceivable that an entity might have been a user of "access services" under the broad regulatory definition, but still not be a user of "exchange access" under the new statutory definition. In light of the new statutory definition, Global NAPs submits that arguments or analyses based on the now-superceded regulatory definition (prior to the 1996 Act, there was no statutory definition of "access") do nothing but confuse matters.

See also responses to interrogatories 17, 26, and 28.

Interrogatory:

28. Will GNAPS admit that enhanced service providers generally pay local business rates and interstate subscriber line charges for their switched access connections to local exchange company central offices? If not, please provide the basis for GNAPS's position, including any legal authority.

No. Information service providers pay local business rates and interstate subscriber line charges for their connections to the public switched network because for legal and regulatory purposes they are end users, not carriers. They do not offer "telephone toll services" and therefore do not use "exchange access." The legal authority for this conclusion is cited above in response to questions 26, 27, and 17. The question seems to be asking Global NAPs to affirm the state of the law as it existed in, perhaps, 1989. While possibly of historical interest, that has nothing to do with this case. In this regard, while the FCC (in its February 1999 *Declaratory Ruling*) struggled with how to apply this pre-1996-Act formulation to the definitions and circumstances created by

the 1996 Act, its effort failed, has been vacated by the courts, and is therefore of no legal force and effect. For this Commission or any party to rely on that ruling on this or closely related topics (which were the very areas where the courts found the FCC's reasoning to be inadequate) would be legal error, pure and simple.

See also responses to interrogatories 17, 26, and 27.

Respectfully submitted,

GLOBAL NAPS, INC.

By: Cathy M. Sellers for

Christopher W. Savage
COLE, RAYWID & BRAVERMAN, L.L.P.
1919 Pennsylvania Avenue, N.W., Suite 200
Washington, D.C. 20006
202-659-9750

Jon C. Moyle, Jr.
Fla. Bar No. 727016
Cathy M. Sellers
Fla. Bar No. 0784958
Moyle Flanigan Katz Raymond & Sheehan, P.A.
118 North Gadsden Street
Tallahassee, FL 32301
(850) 681-3828

Its Attorneys

Dated: February 22, 2001

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 11

PARTY: Florida Competitive Carriers Association

DESCRIPTION:

1. FCCA's responses to BellSouth's First Set of Interrogatories, Items 16-28.

PROFFERING PARTY: STAFF

I.D. # Stip-11

16. Identify any cost study or other data or documents concerning the actual cost to FCCA to transport ISP traffic from the point of interconnection with BellSouth to the ISP server being served by a FCCA switch.

FCCA is an industry association formed to advocate policies favoring competition. FCCA as an entity is not a provider of service. Accordingly, this interrogatory is inapplicable to FCCA.

17. Does FCCA contend that there is a difference between the place where a call "terminates" for jurisdictional purposes and the place where a call "terminates" for reciprocal compensation purposes? If the answer to the foregoing is in the affirmative, please: (a) explain in detail the distinction between call termination for jurisdictional and reciprocal compensation purposes; (b) state the date and describe the circumstances when FCCA first concluded that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (c) state the date and describe the circumstances when FCCA first stated publicly that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (d) identify all documents that refer or relate to or support a distinction between call termination for jurisdictional and reciprocal compensation purposes; (e) identify all internal FCCA memoranda or other documents that discuss, relate to or touch upon the issue of whether reciprocal compensation may be owed for calls delivered to ISPs.

Having compared notes with the other ALECs who received these interrogatories, FCCA finds that the responses articulated by Global NAPS and others in response to Interrogatory Nos. 17, 26, 27, and 28 are consistent with its own. To answer the first part of this question, and subpart (a), requires a definition of the term "call." The term "call" does not have a definition in the Communications Act. However, the term appears in various sections of Title II, including Section 252(d)(2) regarding an appropriate rate for reciprocal compensation. Based on its usage there and throughout Title II, we take the term "call" to mean a circuit-switched connection between two stations connected to the public switched telephone network and addressable by means of numbers within the North American Numbering Plan.

The beginning and end points of a "call" are not directly relevant "for jurisdictional purposes," that is, for determining whether regulatory jurisdiction resides with the Federal Communications Commission or a state. Under 47 U.S.C. § 153(52), the relevant term is "wire communication," which is the "transmission of writing, signs, signals, pictures and sounds of all kinds by aid of wire, cable or other like connection between the points of origin and reception of such transmission, including all instrumentalities, facilities, apparatus and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission." All "calls" are also "communications." But many "communications" are not "calls."

In a normal, garden-variety telephone call, the end points of the call and the end points of the communication are identical. In a call from an end user's modem to an ISP's modem, the "call" begins at the end user's modem and ends at the ISP's modem. The "communication," which is a much broader term, may or may not continue beyond the ISP's modem, either to the ISP's own servers or further into "the Internet" (*see* 47 U.S.C. § 230(f)(1)) for some portion of the time (usually a relatively small portion) that the two modems are connected.

In these circumstances, the ultimate regulatory jurisdiction over ***the communication*** (which is the relevant statutory term) is determined by the end points of the communication, which, in the case of calls to ISPs, can be various. The end points of ***the call,*** however, do not necessarily correspond to the end points of the communication.

There is no difference in where a "call" "terminates" for purposes of reciprocal compensation as opposed to jurisdiction, but where a "call" terminates is not itself relevant to jurisdiction. Indeed, in the case of calls to ISPs, the "call" (relevant to reciprocal compensation) and the "communication" (relevant to jurisdiction) are not identical. Consequently, the "call" can be "local" not only in the literal dialing plan sense (that is, the NPA-NXX of the called number is covered by the local calling plan associated with the NPA-NXX of the calling number) but also in the sense of where the "call" terminates, even though the "communication" is ultimately under the FCC's jurisdiction.

Matters are further complicated, however, by the FCC's repeated determinations that (a) it has jurisdiction over ISP-bound calling, but (b) such calling is nonetheless to be treated as equivalent to "local" calling for any number of regulatory purposes. Indeed, the FCC has routinely and repeatedly ***treated*** ISP-bound traffic as local and intrastate in every regulatory context in which the question has arisen:

Access Charges: The ESP Exemption, as crafted in 1983, was designed to allow ESPs to obtain access to the local exchange network by purchasing intrastate-tariffed local business lines. As both the Commission and the courts have observed, the purpose and effect of this exemption is to allow ESPs/ISPs to be reached by means of local calls from end users. *See* Access Charge Reform, CC Docket No. 96-262, *First Report and Order,* 12 FCC Rcd 15982 (1997) at ¶¶ 341-45, *aff'd sub nom. Southwestern Bell Tel. Co. v. FCC,* 153 F.3d 523 541-43 (8th Cir. 1998). *See also* response to interrogatories 26-28 for further discussion of access charges.

Separations. ILECs are required to treat the costs they incur in handling ISP-bound calls as jurisdictionally intrastate costs. *See* Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Inter-Carrier Compensation for ISP-Bound Traffic, *Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 99-68,* CC Docket Nos. 96-98 and 99-68 (released February 26, 1999) ("*Declaratory Ruling*") at ¶ 36. *See also* Letter to Don Evans, Vice President - Regulatory Advocacy, Bell Atlantic from Lawrence E. Strickling, Chief, Common Carrier Bureau, Re: Separations Treatment of Internet-Related Reciprocal Compensation (July, 29, 1999); Letter to Dale Robertson, Sr. Vice President, SBC Communications, Inc. from Lawrence E. Strickling, Chief, Common Carrier Bureau, Re: Separations

Treatment of ISP-Bound Traffic (May, 18, 1999).

Universal Service. The FCC held that ISPs provide information services, not telecommunications services, and are therefore, for universal service purposes, end users without universal service contribution obligations. *See Declaratory Ruling* at ¶¶ 4 & n.8, 13; In the Matter of Federal-State Joint Board on Universal Service, *Report To Congress*, 13 FCC Rcd 11501 (1998) at ¶ 13 ("We conclude ... that the categories of 'telecommunications service' and 'information service' in the 1996 Act are ***mutually exclusive***."). *See id.* at ¶ 21 (footnote omitted) ("We find ... that Congress intended to maintain a regime in which information service providers are not subject to regulation as common carriers merely because they provide their services 'via telecommunications'.")

Interconnection Rights. Under Section 251, "telecommunications carriers" have certain rights against ILECs that non-carriers lack. When confronted with the question of whether ISPs should be granted Section 251 interconnection rights, the Commission said "no," because these entities were not carriers. *See* Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, *First Report and Order*, 11 FCC Rcd 15499(1996) ("*Local Competition Order*") at ¶ 995. This further cements that the FCC has traditionally treated ISP-bound calls as local in nature, in that it cements the ISPs' status as customers, not carriers.

Furthermore, the courts have rejected the notion that the interstate status of some ISP-bound calls is relevant to the status of those calls as subject to compensation under Section 251(b)(5). The one and only time that the FCC tried to hold that ISP-bound calls were ***not*** "local" on grounds that they were jurisdictionally interstate (in the February 1999 *Declaratory Ruling*, cited above), the D.C. Circuit concluded that the FCC's approach was "intuitively backwards" and vacated the decision (rendering it of no further legal force or effect) "for want of reasoned decisionmaking." *Bell Atlantic v. FCC*, 206 F.3d 1 (D.C. Cir. 2000). The court was perfectly content with the FCC's assertion that these calls were jurisdictionally interstate, but held that this conclusion was simply not related to the conclusion that the same calls are not "local" for purposes of Section 251(b)(5).

The only sensible reading of the state of the law at this point is that ISP-bound calls may indeed be jurisdictionally interstate, but that fact — if it is a fact — has no bearing on whether they should be subject to the reciprocal compensation provisions of Section 251(b)(5). That is to be determined, as laid out by the D.C. Circuit, on the basis of whether it makes more sense, in light of the purposes of the statute, to subject calls to ISPs to the "access charge" model of compensation (which would put ISPs in the position of IXCs) or the "reciprocal compensation" model of compensation (which would put ISPs in the position of end users). FCCA submits that the only rational answer in light of the other regulatory rulings relating to ISPs, stated above, is that the "reciprocal compensation" model is correct.

(6)(b) - (e) FCCA has objected to the remaining subparts of this interrogatory.

FCCA is an industry association formed to advocate policies favoring competition. FCCA as an entity is not a provider of service. Accordingly, this interrogatory is inapplicable to FCCA.

23. Does FCCA own or have an interest in an ISP? Is FCCA affiliated in any way with an ISP (other than a customer relationship)? If so, explain in full the nature of such interest or affiliation.

No.

24. State the actual cost incurred by FCCA to transport ISP traffic from the point of interconnection with BellSouth to the ISP server being served by a FCCA switch.

FCCA is an industry association formed to advocate policies favoring competition. FCCA as an entity is not a provider of service. Accordingly, this interrogatory is inapplicable to FCCA.

25. State the number of resold lines FCCA has in Florida, broken down by residence and business lines, if not provided in response to an earlier interrogatory.

FCCA is an industry association formed to advocate policies favoring competition. FCCA as an entity is not a provider of service. Accordingly, this interrogatory is inapplicable to FCCA.

26. Will FCCA admit that ISPs are also enhanced service providers? If not, please provide the basis for FCCA's position, including any legal authority.

The FCCA has no position on this question at this time.

27. Will FCCA admit that enhanced service providers are exchange access users? If not, please provide the basis for FCCA's position, including any legal authority.

No. Here, the question is confusing a pre-1996-Act term ("enhanced service provider") with the newly defined statutory term "exchange access," defined in 47 U.S.C. § 153(16). The statutory term is defined as "the offering of access to telephone exchange services or facilities ***for the purpose of the origination or termination of telephone toll services***" (emphasis added). "Telephone toll service," in turn, is defined

as service between stations in different exchanges for which a separate (toll) charge is assessed. *See* 47 U.S.C. § 153(48). Neither pre-Act "enhanced service providers" nor post-Act "information service" providers (including ISPs) provide "telephone toll service." If they did, they would be telecommunications carriers, as defined in 47 U.S.C. § 153(44). But the FCC in the *Report to Congress* expressly held that the categories of "telecommunications carrier" and "information service provider" are mutually exclusive.

Prior to the 1996 Act, as a matter of regulatory policy, the FCC had determined that "enhanced services providers" were users of "access services." But that tells us nothing of value for how things stand following the 1996 Act, because the regulatory term "access service" is much, much broader than the new statutory term "exchange access" referenced in the question. That regulatory definition is contained in section 69.42(b) of the FCC's rules: "access service" means: "services and facilities provided for the origination or termination of any interstate or foreign telecommunications." So it is quite conceivable that an entity might have been a user of "access services" under the broad regulatory definition, but still not be a user of "exchange access" under the new statutory definition.

28. Will FCCA admit that enhanced service providers generally pay local business rates and interstate subscriber line charges for their switched access connections to local exchange company central offices? If not, please provide the basis for FCCA's position, including any legal authority.

No. Information service providers pay local business rates and interstate subscriber line charges for their connections to the public switched network because for legal and regulatory purposes they are end users, not carriers. They do not offer "telephone toll services" and therefore do not use "exchange access." The legal authority for this conclusion is cited above.

Joseph A. McGlothlin
Vicki Gordon Kaufman
McWhirter, Reeves, McGlothlin, Davidson
Decker, Kaufman, Arnold & Steen, P.A.
117 South Gadsden Street
Tallahassee, Florida 32301
(850) 222-2525 (telephone)
(850) 222-5606 (fax)

Attorneys for the Florida Competitive Carriers Association

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 12

PARTY: Florida Cable Telecommunications Association

DESCRIPTION:

1. FCTA's responses to BellSouth's First Set of Interrogatories, Items 15-28.

PROFFERING PARTY: STAFF

I.D. # Stip-12

INTERROGATORY #15

Please provide the total number of switches FCTA has deployed in Florida.

ANSWER

Not applicable. See answer to Interrogatory No. 6.

INTERROGATORY #16

Identify any cost study or other data or documents concerning the actual cost to FCTA to transport ISP traffic from the point of interconnection with BellSouth to the ISP server being served by a FCTA switch.

ANSWER

Not applicable. See answer to Interrogatory No. 6.

INTERROGATORY #17

Does the FCTA contend that there is a difference between the place where a call "terminates" for jurisdictional purposes and the place where a call "terminates" for reciprocal compensation purposes? If the answer to the foregoing is in the affirmative, please: (a) explain in detail the distinction between call termination for jurisdictional and reciprocal compensation purposes; (b) state the date and describe the circumstances when the FCTA first concluded that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (c) state the date and describe the circumstances when the FCTA first stated publicly that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (d) identify all documents that refer or relate to or support a distinction between call termination for jurisdictional and reciprocal compensation purposes; (e) identify all internal the FCTA

memoranda or other documents that discuss, relate to or touch upon the issue of whether reciprocal compensation may be owed for calls delivered to ISPs.

ANSWER

17 and 17(a)

To answer the first part of this question, and subpart (a), requires a definition of the term "call." The term "call" does not have a definition in the Communications Act. However, the term appears in various sections of Title II, including Section 252(d)(2) regarding an appropriate rate for reciprocal compensation. Based on its usage there and throughout Title II, we take the term "call" to mean a circuit-switched connection between two stations connected to the public switched telephone network and addressable by means of numbers within the North American Numbering Plan.

The beginning and end points of a "call" are not directly relevant "for jurisdictional purposes," that is, for determining whether regulatory jurisdiction resides with the Federal Communications Commission or a state. Under 47 U.S.C. § 153(52), the relevant term is "wire communication," which is the "transmission of writing, signs, signals, pictures and sounds of all kinds by aid of wire, cable or other like connection between the points of origin and reception of such transmission, including all instrumentalities, facilities, apparatus and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission." All "calls" are also "communications." But many "communications" are not "calls."

In a normal, garden-variety telephone call, the end points of the call and the end points of the communication are identical. In a call from an end user's modem to an ISP's modem,

the "call" begins at the end user's modem and ends at the ISP's modem. The "communication," which is a much broader term, may or may not continue beyond the ISP's modem, either to the ISP's own servers or further into "the Internet" (*see* 47 U.S.C. § 230(f)(1)) for some portion of the time (usually a relatively small portion) that the two modems are connected.

In these circumstances, the ultimate regulatory jurisdiction over ***the communication*** (which is the relevant statutory term) is determined by the end points of the communication, which, in the case of calls to ISPs, can be various. The end points of ***the call,*** however, do not necessarily correspond to the end points of the communication. The literal answer to the question is there no difference in where a "call" "terminates" for purposes of reciprocal compensation as opposed to jurisdiction, but where a "call" terminates is not itself relevant to jurisdiction.

Matters are further complicated, however, by the FCC's repeated determinations that (a) it has jurisdiction over ISP-bound calling, but (b) such calling is nonetheless to be treated as equivalent to "local" calling for any number of regulatory purposes. Indeed, the FCC has routinely and repeatedly ***treated*** ISP-bound traffic as local and intrastate in every regulatory context in which the question has arisen, including access charges, separations, universal service, and interconnection rights.

Furthermore, the courts have rejected the notion that the interstate status of some ISP-bound calls is relevant to the status of those calls as subject to compensation under Section 251(b)(5). In *Bell Atlantic v. FCC,* 206 F.3d 1 (D.C. Cir. 2000), the court was

perfectly content with the FCC's assertion that these calls were jurisdictionally interstate, but held that this conclusion was simply not related to the conclusion that the same calls are not "local" for purposes of Section 251(b)(5).

The only sensible reading of the state of the law at this point is that ISP-bound calls may indeed be jurisdictionally interstate, but that such conclusion has no bearing on whether they should be subject to the reciprocal compensation provisions of Section 251(b)(5). We submit that the only rational answer in light of the other regulatory rulings relating to ISPs, stated above, is that the "reciprocal compensation" model is correct.

17(b) and (c)

The FCTA is not aware of ever having taken any position regarding the claim that "there was a distinction between call termination for jurisdictional and reciprocal compensation purposes;" as noted above, "call termination" per se is not relevant to any "jurisdictional purposes;" in this respect, the question simply reflects a failure to consider the relevant definitions (and lack thereof, in the case of "calls") in the U.S. Code. As in the case of many industry participants, the FCTA's precise views of the proper legal, policy and factual analysis applicable to ISP-bound calls has evolved over time, both in response to additional factual inquiry and in response to various (at least at the time) binding rulings from regulators.

17(d)

The FCTA objects subpart (d) on the grounds that it is overly broad, ambiguous, unduly burdensome, not reasonably calculated to lead to the discovery of admissible evidence,

and the information sought is irrelevant to the subject matter of this action. This subpart is so broad and vague that the FCTA is unable to frame a response.

17(e)

The FCTA objects to subpart (e) on the grounds that it is overly broad, ambiguous, unduly burdensome, not reasonably calculated to lead to the discovery of admissible evidence, and the information sought is irrelevant to the subject matter of this action. Additionally, the FCTA objects to the extent that the information is protected by the attorney work product privilege and the attorney-client privilege.

INTERROGATORY #18

Has FCTA provided telecommunications services to any person with whom FCTA has entered into any arrangement or agreement that involves the sharing of reciprocal compensation received by FCTA from BellSouth? If the answer to the foregoing is in the affirmative, identify the person, describe the telecommunications services FCTA has provided, and identify all documents referring or relating to such telecommunications services.

ANSWER

Not applicable. See answer to Interrogatory No. 6.

INTERROGATORY #24

State the actual cost incurred by the FCTA to transport ISP traffic from the point of interconnection with BellSouth to the ISP server being served by a FCTA switch.

ANSWER

Not applicable. See answer to Interrogatory No. 6.

INTERROGATORY #25

State the number of resold lines the FCTA has in Florida, broken down by residence and business line, if not provided in response to an earlier interrogatory.

ANSWER

Not applicable. See answer to Interrogatory No. 6.

INTERROGATORY #26

Will the FCTA admit that ISPs are also enhanced service providers? If not, please provide the basis for the FCTA's position, including any legal authority.

ANSWER

No. The term "enhanced service provider" was a regulatory invention of the FCC prior to the passage of the 1996 Act. The 1996 Act uses the term "information service" to capture essentially the same concept as the prior term "enhanced service." But the statutory term now controls. Internet Service Providers are providers of "information services" under the definitions in the Act, as the FCC expressly held in the April 1998 *Report to Congress*. The use of the term "enhanced service provider" is therefore useful in discussing FCC and related decisions relevant to ISPs prior to the 1996 Act, but simply confuses things if it is applied to post-1996-Act circumstances.

INTERROGATORY #27

Will the FCTA admit that enhanced service providers are exchange access users? If not, please provide the basis for the FCTA's position, including any legal authority.

ANSWER

No. Here, the question is confusing a pre-1996-Act term ("enhanced service provider") with the newly defined statutory term "exchange access," defined in 47 U.S.C. § 153(16). The statutory term is defined as "the offering of access to telephone exchange services or facilities ***for the purpose of the origination or termination of telephone toll services***" (emphasis added). "Telephone toll service," in turn, is defined as service between stations in different exchanges for which a separate (toll) charge is assessed. *See* 47 U.S.C. § 153(48). Neither pre-Act "enhanced service providers" nor post-Act "information service" providers (including ISPs) provide "telephone toll service." If they did, they would be telecommunications carriers, as defined in 47 U.S.C. § 153(44). But the FCC in the *Report to Congress* expressly held that the categories of "telecomrnunications carrier" and "information service provider" are mutually exclusive.

INTERROGATORY #28

Will the FCTA admit that enhanced service providers generally pay local business rates and interstate subscriber line charges for their switched access connections to local exchange company central offices? If not, please provide the basis for the FCTA's position, including any legal authority.

ANSWER

No. Information service providers pay local business rates and interstate subscriber line charges for their connections to the public switched network because for legal and

regulatory purposes they are end users, not carriers. They do not offer "telephone toll services" and therefore do not use "exchange access." The legal authority for this conclusion is cited above in response to questions 26, 27, and 17.

Respectfully submitted this 22nd day of February, 2001.

Michael A. Gross
Vice President, Regulatory Affairs
& Regulatory Counsel
Florida Cable Telecommunications Association
246 E. 6th Avenue, Suite 100
Tallahassee, FL 32303
Tel: 850/681-1990
Fax: 850/681-9676
mgross@fcta.com

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 13

PARTY: e.spire Communications, Inc.

DESCRIPTION:

1. E.spire's responses to BellSouth's First Set of Interrogatories.

PROFFERING PARTY: STAFF

I.D. # Stip-13

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into Appropriate Method to Compensate Carriers for Exchange Traffic Subject to Sec. 251 of the Telecommunications Act	)))))	Docket No. 000075-TP

e.spire's OBJECTIONS AND RESPONSES TO BELLSOUTH TELECOMMUNICATIONS, INC.'S FIRST SET OF INTERROGATORIES

COMES NOW, e.spire Communications, Inc. (e.spire) herewith submits the following Objections and Responses to BellSouth's First Set of Interrogatories (Nos. 1 - 21). The Objections and Responses are provided subject to the General Objections filed February 13, 2001.

1. Identify all persons participating in the preparation of the answers to these Interrogatories or supplying information used in connection herewith.

RESPONSE: Information used in supplying information in connection with these interrogatories was provided by James Falvey, Bibi Solanke, Tim DeCamp and Kathy Robinson

2. Identify each person who you expect to call as an expert witness at the arbitration hearing. With respect to such expert, please state the subject matter on which the expert is expected to testify, the substance of the facts and opinions to which the expert is expected to testify, and a summary of the grounds for each opinion.

RESPONSE: e.spire has prefiled testimony for James Falvey who will testify on the issues in this proceeding as to e.spire. The information requested is in his testimony.

3. Identify all documents which refer or relate to any issues raised in the Generic ISP Proceeding that were provided or made available to any expert identified in response to Interrogatory No. 2.

RESPONSE: Objected to as overbroad, vague and unduly burdensome.

4. Identify all documents which refer or relate to any issue raised in Phase I of the Generic ISP Proceeding.

RESPONSE: Objected to as overbroad, vague, unduly burdensome, oppressive and excessively time consuming.

5. Identify all documents upon which e.spire intends to rely or introduce into evidence at the hearing on this matter.

RESPONSE: See prefiled testimony and exhibits of James Falvey. e.spire reserves the right to utilize documents during the hearing. e.spire objects to identifying documents upon which it "intends to rely" as being vague and overbroad.

6. Has e.spire requested that any state commission outside of BellSouth's region arbitrate, pursuant to Section 252 of the Telecommunications Act of 1996, any of the issues raised in the Generic ISP Proceeding? If the answer to this Interrogatory is in the affirmative, please identify the specific issue on which arbitration was sought; identify the state commission before which e.spire sought arbitration, including the case name, docket number, and date the petition was filed; and describe with particularity the state commission's resolution of the issue and identify the state commission Order in which such resolution was made.

RESPONSE: Yes. On February 3, 2000, e.spire requested that the Texas Public Utility Commission arbitrate, pursuant to section 252 of the Telecommunications Act of

1996, issues raised in the Generic ISP proceedings Docket No. 21982, Proceeding to Examine Reciprocal Compensation Pursuant to Section 252 of the Federal Telecommunications Act of 1996.

7. Identify the number of access lines in Florida for which e.spire provides local telephone service.

RESPONSE: e.spire objects to this on the basis that the information is confidential and further that it is not relevant to the subject matter of the generic docket and not reasonably calculated to lead to the discovery of admissible evidence.

8. Please state the total number of end user customers that e.spire serves within the state of Florida, separated into residential and business customers.

RESPONSE: e.spire objects to this on the basis that the information is confidential and further that it is not relevant to the subject matter of the generic docket and not reasonably calculated to lead to the discovery of admissible evidence.

9. Please state the total number of end user customers that e.spire serves off of its own network ("on-net" customers) within Florida.

RESPONSE: e.spire objects to this on the basis that the information is confidential and further that it is not relevant to the subject matter of the generic docket and not reasonably calculated to lead to the discovery of admissible evidence.

10. Please state the total number of e.spire's on-net customers in Florida that are Internet Service Providers ("ISPs").

RESPONSE: e.spire objects to this on the basis that the information is confidential and further that it is not relevant to the subject matter of the generic docket and not reasonably calculated to lead to the discovery of admissible evidence.

11. Please state on a monthly basis the total amount of revenue that e.spire expects to earn from providing services within Florida to its end-user customers for the years 2001 and 2002.

RESPONSE: e.spire objects to this on the basis that the information is confidential and further that it is not relevant to the subject matter of the generic docket and not reasonably calculated to lead to the discovery of admissible evidence.

12. Please state on a monthly basis the total amount of revenue that e.spire expects to earn from providing services within Florida to its "on-net" end-user customers for the years 2001 and 2002.

RESPONSE: e.spire objects to this on the basis that the information is confidential and further that it is not relevant to the subject matter of the generic docket and not reasonably calculated to lead to the discovery of admissible evidence.

13. For the Florida ISP customers identified in response to Interrogatory No. 9, please state, on an annual basis, (a) the total amount e.spire expects to earn for service to those customers for the years 2001 and 2001; (b) the amounts of any credits, rebate, or adjustments expected to be given to such customers for the years 2001 and 2002; and (c) the total amount of revenue e.spire expects to collect from such customers for the years 2001 and 2002.

RESPONSE: e.spire objects to this on the basis that the information is confidential and further that it is not relevant to the subject matter of the generic docket and not reasonably calculated to lead to the discovery of admissible evidence.

14. Please provide e.spire's total dollar investment in Florida, including total dollar investment in switches, outside plant, and support assets.

RESPONSE: e.spire objects to this on the basis that the information is confidential and further that it is not relevant to the subject matter of the generic docket and not reasonably calculated to lead to the discovery of admissible evidence.

15. Please provide the total number of switches e.spire has deployed in Florida.

RESPONSE: e.spire objects to this on the basis that the information is confidential and further that it is not relevant to the subject matter of the generic docket and not reasonably calculated to lead to the discovery of admissible evidence. Notwithstanding the objection, e.spire has 3 switches in Florida.

16. Identify any cost study or other data or documents concerning the actual cost to e.spire to transport ISP traffic from the point of interconnection with BellSouth to the ISP serve being served by a e.spire switch.

RESPONSE: e.spire objects to this on the basis that the information is confidential and further that it is not relevant to the subject matter of the generic docket and not reasonably calculated to lead to the discovery of admissible evidence.

17. Does e.spire contend that there is a difference between the place where a call "terminates" for jurisdictional purposes and the place where a call "terminates" for reciprocal compensation purposes? If the answer to the foregoing is in the affirmative, please: (a) explain in detail the distinction between call termination for jurisdictional and reciprocal compensation purposes; (b) state the date and describe the circumstances when e.spire first concluded that there was a distinction

between call termination for jurisdictional and reciprocal compensation purposes; (c) state the date and describe the circumstances when e.spire first stated publicly that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (d) identify all documents that refer or relate to or support a distinction between call termination for jurisdictional and reciprocal compensation purposes; (e) identify all internal e.spire memoranda or other documents that discuss, relate to or touch upon the issue of whether reciprocal compensation may be owed for calls delivered to ISPs.

RESPONSE: No. The proposition that there is a distinction between call termination for jurisdictional and reciprocal compensation purposes was developed by the FCC. This is an issue of jurisdiction that will be resolved in the regulatory arena.

18. Has e.spire provided telecommunications services to any person with whom e.spire has entered into any arrangement or agreement that involves the sharing of reciprocal compensation received by e.spire from BellSouth? If the answer to the foregoing is in the affirmative, identify the person, describe the telecommunications services e.spire has provided, and identify all documents referring or relating to such telecommunications services.

RESPONSE: e.spire objects to this interrogatory on the basis that the information requested is proprietary and confidential.

19. Identify all state and federal legal authority that supports e.spire's contention that traffic to ISPs is local traffic.

RESPONSE: The information requested is available to BellSouth however e.spire will provide a list of regulatory and judicial decisions.

20. State the rate you contend is appropriate for reciprocal compensation for ISP-bound traffic, and separately state the rate you contend is appropriate for local traffic, if that is a different figure. In answering this interrogatory, state with particularity how the rate(s) were calculated and identify any analyses, cost studies, or other reports that support your rates.

RESPONSE: e.spire believes that the tandem interconnection rate established by the FPSC for all local traffic including ISP bound is appropriate.

21. If not provided in a previous answer, has e.spire ever taken he position before a regulatory body that ISP traffic is interstate or non-local traffic? If so, identify the proceeding wherein e.spire took said position, including the name and date of any documents wherein said position was expressed.

RESPONSE: No. e.spire has not taken the position before a regulatory body that ISP traffic is interstate or non-local traffic. e.spire has filed pleadings deferring to the FCC's now-vacated decision that ISP-bound traffic is interstate for jurisdiction purposes.

Respectfully submitted this 26th day of February, 2001.

Norman H. Horton, Jr.
Messer, Caparello & Self, P.A.
215 S. Monroe Street, Suite 701
P.O. Box 1876
Tallahassee, FL 32302-1876
(850) 222-0720

Attorneys for e.spire Communications, Inc.

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 14

PARTY: TCG of South Florida

DESCRIPTION:

1. TCG's responses to BellSouth's First Set of Interrogatories.

PROFFERING PARTY: STAFF

I.D. # Stip-14

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO 000075-TP EXHIBIT NO 14
COMPANY/ WITNESS. FPSC Staff
DATE: 3-7&8-07

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996.	)))))	Docket No. 000075-TP

TCG OF SOUTH FLORIDA'S
RESPONSES TO
BELLSOUTH TELECOMMUNICATIONS, INC.'S
FIRST SET OF INTERROGATORIES

TCG of South Florida ("TCG") hereby submits its Responses to those Interrogatories set forth in the First Set of Interrogatories served by BellSouth Telecommunications, Inc. ("BellSouth") that are not subject to the specific objections to BellSouth's First Set of Interrogatories previously filed by TCG on February 12, 2001.

1. Identify all persons participating in the preparation of the answers to these interrogatories or supplying information used in connection therewith.

Response:

Gregory R. Follensbee, AT&T, Division Manager, Law and Government Affairs.

2. Identify each person whom you expect to call as an expert witness at the arbitration hearing. With respect to each such expert, please state the subject matter on which the expert is expected to testify, the substance of the facts and opinions to which the expert is expected to testify, and the summary of the grounds for each opinion.

Response:

Lee Selwyn. His testimony contains responses to the rest of this interrogatory.

3. Identify all documents which refer or relate to any issues raised in the generic ISP proceeding that were provided or made available to any expert identified in response to Interrogatory No. 2.

Response:

A spreadsheet containing BellSouth-Florida's approved TELRIC cost study results for Unbundled Network Elements, which was admitted into the record in Docket No. 990649-TP.

5. Identify all documents upon which TCG intends to rely or introduce into evidence at the hearing on this matter.

Response:

TCG intends to rely upon the prefiled direct testimony and exhibits and prefiled rebuttal testimony of Dr. Lee L. Selwyn. TCG reserves the right to introduce additional documents for purposes of cross-examination or to respond to cross-examination of Dr. Selwyn.

6. Has TCG requested that any state commission outside of BellSouth's region arbitrate, pursuant to Section 252 of the Telecommunications Act of 1996, any of the issues raised in the generic ISP proceeding? If the answer to this Interrogatory is in the affirmative, please identify the specific issue on which arbitration was sought; identify the state commission which TCG sought arbitration, including the case name, docket number and date the petition was filed; and describe a particularity of the state commission's resolution of the issue and identify the state commission order in which such resolution was made.

Response:

TCG objects to BellSouth's Interrogatory No. 6 on the grounds that the information requested is overly broad and unduly burdensome, and the requested information is available to BellSouth in publicly filed documents. TCG also objects on relevancy grounds insofar as Interrogatory No. 6 requests information filed by TCG outside BellSouth's region. However, in an effort to comply with BellSouth's request, TCG herein identifies any state commission within BellSouth's region wherein TCG requested the Commission to arbitrate the issues raised in this generic ISP proceeding.

The following issue has been included in TCG's request for arbitration under Section 252 of the Telecommunications Act of 1996 in all nine states where BellSouth provides local service:

Should calls to Internet service providers be treated as local traffic for the purposes of reciprocal compensation?

The following is the information requested on each petition.

STATE	DOCKET NUMBER	DATE PETITION FILED	COMMISSION RESOLUTION	STATE ORDER
AL	27889	11/8/00	Petition has not yet been heard	N/A
FL	000731-TP	6/16/00	Issue transferred to Generic ISP proceeding	N/A

GA	11853	2/4/00	Issue heard, but no decision rendered	N/A
KY	2000-465	10/5/00	Petition has not yet been heard	N/A
LA	U-25264	10/4/00	Issue transferred to Generic ISP proceeding	N/A
MS	2000-AD-214	3/15/00	The parties settled the issue.	N/A
NC	P-140, Sub 73 and P-646, Sub 7	4/27/00	The parties settled the issue.	N/A
SC	2000-527-C	10/18/00	Commission determined ISP bound traffic was not local traffic for purposes of reciprocal compensation	Order No. 2001-079
TN	00-00079	2/4/00	Petition has not yet been heard	N/A

17. Does TCG contend that there is a difference between the place where a call "terminates" for jurisdictional purposes and the place where a call "terminates" for reciprocal compensation purposes? If the answer to the foregoing is in the affirmative, please: (a) explain in detail the distinction between call termination for jurisdictional and reciprocal compensation purposes; (b) state the date and describe the circumstances when TCG first concluded that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (c) state the date and describe the circumstances when TCG first stated publicly that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (d) identify all documents that refer or relate to or support a distinction between call termination for jurisdictional and reciprocal compensation purposes; (e) identify all internal TCG memoranda or other documents that discuss, relate to or touch upon the issue of whether reciprocal compensation may be owed for calls delivered to ISPs.

Response:

In its Public Notice issued June 26, 2000, the FCC has asked for public comment on this issue. TCG is providing a copy of its response to the FCC's Public Notice. As set forth in the response to Interrogatory No. 21, regardless of whether a dial-up ISP-bound call is considered interstate or intrastate jurisdictionally, which may involve consideration of where the call "terminates," compensation should be paid by the originating carrier to the terminating carrier for costs involved in transporting and terminating the call. TCG's position on this issue is fully set forth in its Comments filed on July 21, 2000 in FCC Docket Nos. 96-98 and 99-68 regarding Inter-Carrier Compensation for ISP-Bound Traffic. A copy of TCG's Comments will be provided to BellSouth.

18. Has TCG provided telecommunications services to any person with whom TCG has entered into any arrangement or agreement that involves the sharing of reciprocal compensation received by TCG from BellSouth? If the answer to the foregoing is in the affirmative, identify the person, describe the telecommunications services TCG has provided, and identify all documents referring or relating to such telecommunications services.

Response:

No.

19. Identify all state and federal legal authority that supports TCG's contention that traffic to ISPs is local traffic.

Response:

The rulings of individual state commissions and the FCC on this issue are quite numerous, and are as available to BellSouth as to TCG.

20. State the rate you contend is appropriate for reciprocal compensation for ISP bound traffic, and separately state the rate you contend is appropriate for local traffic, if that is a different figure. In answering this Interrogatory, state with particularity how the rate(s) were calculated and identify any analyses, cost studies, or other reports that support your rates.

Response:

The rates proposed for both ISP-bound traffic and local traffic can be found in Docket No. 990649-TP, revised King Exhibit JAK-1, a copy of which has been produced as Attachment 3 in response to BellSouth's First Set of Requests for Production of Documents to TCG. TCG is not proposing different rates be charged. Also see the prefiled direct testimony of Dr. Selwyn at pages 69 and 70.

21. If not provided in a previous answer, has TCG ever taken the position before a regulatory body that ISP traffic is interstate or non-local traffic? If so, identify the proceeding wherein TCG took said position, including the name and date of any documents wherein said position was expressed.

Response:

See response to Interrogatory No. 17. All legal authority is cited in TCG's Comments.

26. Will TCG admit that ISPs are also enhanced service providers? If not, please provide the basis for TCG's position including any legal authority.

Response:

Yes.

27. Will TCG admit that enhanced service providers are exchange access users? If not, please provide the basis for TCG's position, including any legal authority.

Response:

No. For purposes of issues relevant to this proceeding, enhanced service providers are treated like any other end user of local telephone exchange services. In fact, the FCC ordered that they were to be treated as such in granting ESPs an exemption from payment of access charges. TCG suggests that the FCC's orders speak for themselves.

28. Will TCG admit that enhanced service providers generally pay local business rates and interstate subscriber line charges for their switched access connection to local exchange companies central offices? If not, please provide the basis for TCG's position, including any legal authority.

Response:

No. Information service providers pay local business rates and interstate subscriber line charges for their connections to the public switched network because for legal and regulatory purposes they are end users, not carriers. They do not offer "telephone toll services" and therefore do not use "exchange access." The legal authority for this conclusion is cited above in response to Interrogatories 17 and 26.

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 15

PARTY: MediaOne Florida Telecommunications, Inc.

DESCRIPTION:

1. MediaOne's responses to BellSouth's First Set of Interrogatories.

PROFFERING PARTY: STAFF

I.D. # Stip-15

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996.	)))))	Docket No. 000075-TP

MEDIAONE FLORIDA TELECOMMUNICATIONS, INC.'S RESPONSES TO BELLSOUTH TELECOMMUNICATIONS, INC.'S FIRST SET OF INTERROGATORIES

MediaOne Florida Telecommunications, Inc. ("MediaOne") hereby submits its Responses to those Interrogatories set forth in the First Set of Interrogatories served by BellSouth Telecommunications, Inc. ("BellSouth") that are not subject to the specific objections to BellSouth's First Set of Interrogatories previously filed by MediaOne on February 12, 2001.

1. Identify all persons participating in the preparation of the answers to these interrogatories or supplying information used in connection therewith.

Response:

Gregory R. Follensbee, AT&T, Division Manager, Law and Government Affairs.

2. Identify each person whom you expect to call as an expert witness at the arbitration hearing. With respect to each such expert, please state the subject matter on which the expert is expected to testify, the substance of the facts and opinions to which the expert is expected to testify, and the summary of the grounds for each opinion.

Response:

Lee Selwyn. His testimony contains responses to the rest of this interrogatory.

3. Identify all documents which refer or relate to any issues raised in the generic ISP proceeding that were provided or made available to any expert identified in response to Interrogatory No. 2.

Response:

A spreadsheet containing BellSouth-Florida's approved TELRIC cost study results for Unbundled Network Elements, which was admitted into the record in Docket No. 990649-TP.

5. Identify all documents upon which MediaOne intends to rely or introduce into evidence at the hearing on this matter.

Response:

MediaOne intends to rely upon the prefiled direct testimony and exhibits and prefiled rebuttal testimony of Dr. Lee L. Selwyn. MediaOne reserves the right to introduce additional documents for purposes of cross-examination or to respond to cross-examination of Dr. Selwyn.

6. Has MediaOne requested that any state commission outside of BellSouth's region arbitrate, pursuant to Section 252 of the Telecommunications Act of 1996, any of the issues raised in the generic ISP proceeding? If the answer to this Interrogatory is in the affirmative, please identify the specific issue on which arbitration was sought; identify the state commission which MediaOne sought arbitration, including the case name, docket number and date the petition was filed; and describe a particularity of the state commission's resolution of the issue and identify the state commission order in which such resolution was made.

Response:

MediaOne objects to BellSouth's Interrogatory No. 6 on the grounds that the information requested is overly broad and unduly burdensome, and the requested information is available to BellSouth in publicly filed documents. MediaOne also objects on relevancy grounds insofar as Interrogatory No. 6 requests information filed by MediaOne outside BellSouth's region. However, in an effort to comply with BellSouth's request, MediaOne herein identifies any state commission within BellSouth's region wherein MediaOne requested the Commission to arbitrate the issues raised in this generic ISP proceeding.

The following issue has been included in MediaOne's request for arbitration under Section 252 of the Telecommunications Act of 1996 in all nine states where BellSouth provides local service:

Should calls to Internet service providers be treated as local traffic for the purposes of reciprocal compensation?

The following is the information requested on each petition.

STATE	DOCKET NUMBER	DATE PETITION FILED	COMMISSION RESOLUTION	STATE ORDER
AL	27889	11/8/00	Petition has not yet been heard	N/A

FL	000731-TP	6/16/00	Issue transferred to Generic ISP proceeding	N/A
GA	11853	2/4/00	Issue heard, but no decision rendered	N/A
KY	2000-465	10/5/00	Petition has not yet been heard	N/A
LA	U-25264	10/4/00	Issue transferred to Generic ISP proceeding	N/A
MS	2000-AD-214	3/15/00	The parties settled the issue.	N/A
NC	P-140, Sub 73 and P-646, Sub 7	4/27/00	The parties settled the issue.	N/A
SC	2000-527-C	10/18/00	Commission determined ISP bound traffic was not local traffic for purposes of reciprocal compensation	Order No. 2001-079
TN	00-00079	2/4/00	Petition has not yet been heard	N/A

17. Does MediaOne contend that there is a difference between the place where a call "terminates" for jurisdictional purposes and the place where a call "terminates" for reciprocal compensation purposes? If the answer to the foregoing is in the affirmative, please: (a) explain in detail the distinction between call termination for jurisdictional and reciprocal compensation purposes; (b) state the date and describe the circumstances when MediaOne first concluded that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (c) state the date and describe the circumstances when MediaOne first stated publicly that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (d) identify all documents that refer or relate to or support a distinction between call termination for jurisdictional and reciprocal compensation purposes; (e) identify all internal MediaOne memoranda or other documents that discuss, relate to or touch upon the issue of whether reciprocal compensation may be owed for calls delivered to ISPs.

Response:

In its Public Notice issued June 26, 2000, the FCC has asked for public comment on this issue. MediaOne is providing a copy of its response to the FCC's Public Notice. As set forth in the response to Interrogatory No. 21, regardless of whether a dial-up ISP-bound call is considered interstate or intrastate jurisdictionally, which may involve consideration of where the call "terminates," compensation should be paid by the originating carrier to the terminating carrier for costs involved in transporting and terminating the call. MediaOne's position on this issue is fully set forth in its Comments filed on July 21, 2000 in FCC Docket Nos. 96-98 and 99-68 regarding

Inter-Carrier Compensation for ISP-Bound Traffic. A copy of MediaOne's Comments will be provided to BellSouth.

18. Has MediaOne provided telecommunications services to any person with whom MediaOne has entered into any arrangement or agreement that involves the sharing of reciprocal compensation received by MediaOne from BellSouth? If the answer to the foregoing is in the affirmative, identify the person, describe the telecommunications services MediaOne has provided, and identify all documents referring or relating to such telecommunications services.

Response:

No.

19. Identify all state and federal legal authority that supports MediaOne's contention that traffic to ISPs is local traffic.

Response:

The rulings of individual state commissions and the FCC on this issue are quite numerous, and are as available to BellSouth as to MediaOne.

20. State the rate you contend is appropriate for reciprocal compensation for ISP bound traffic, and separately state the rate you contend is appropriate for local traffic, if that is a different figure. In answering this Interrogatory, state with particularity how the rate(s) were calculated and identify any analyses, cost studies, or other reports that support your rates.

Response:

The rates proposed for both ISP-bound traffic and local traffic can be found in Docket No. 990649-TP, revised King Exhibit JAK-1, a copy of which has been produced as Attachment 3 in response to BellSouth's First Set of Requests for Production of Documents to MediaOne. MediaOne is not proposing different rates be charged. Also see the prefiled direct testimony of Dr. Selwyn at pages 69 and 70.

21. If not provided in a previous answer, has MediaOne ever taken the position before a regulatory body that ISP traffic is interstate or non-local traffic? If so, identify the proceeding wherein MediaOne took said position, including the name and date of any documents wherein said position was expressed.

Response:

See response to Interrogatory No. 17. All legal authority is cited in MediaOne's Comments.

26. Will MediaOne admit that ISPs are also enhanced service providers? If not, please provide the basis for MediaOne's position including any legal authority.

Response:

Yes.

27. Will MediaOne admit that enhanced service providers are exchange access users? If not, please provide the basis for MediaOne's position, including any legal authority.

Response:

No. For purposes of issues relevant to this proceeding, enhanced service providers are treated like any other end user of local telephone exchange services. In fact, the FCC ordered that they were to be treated as such in granting ESPs an exemption from payment of access charges. MediaOne suggests that the FCC's orders speak for themselves.

28. Will MediaOne admit that enhanced service providers generally pay local business rates and interstate subscriber line charges for their switched access connection to local exchange companies central offices? If not, please provide the basis for MediaOne's position, including any legal authority.

Response:

No. Information service providers pay local business rates and interstate subscriber line charges for their connections to the public switched network because for legal and regulatory purposes they are end users, not carriers. They do not offer "telephone toll services" and therefore do not use "exchange access." The legal authority for this conclusion is cited above in response to Interrogatories 17 and 26.

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 16

PARTY: Allegiance Telecom of Florida, Inc.

DESCRIPTION:

1. Allegiance's responses to BellSouth's First Set of Interrogatories.

PROFFERING PARTY: STAFF

I.D. # Stip-16

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996.	)))))	Docket No. 000075-TP

ALLEGIANCE TELECOM OF FLORIDA, INC.'S RESPONSES TO BELLSOUTH TELECOMMUNICATIONS, INC.'S FIRST SET OF INTERROGATORIES

Allegiance Telecom of Florida, Inc. ("Allegiance") hereby submits its Responses the First Set of Interrogatories served by BellSouth Telecommunications, Inc. ("BellSouth") that are not subject to the specific objections to BellSouth's First Set of Interrogatories previously filed by Allegiance on February 12, 2001.

1. Identify all persons participating in the preparation of the answers to these interrogatories or supplying information used in connection therewith.

Response:

Mary C. Albert, Vice President, Regulatory and Interconnection, Allegiance Telecom, Inc., and counsel for Allegiance.

2. Identify each person whom you expect to call as an expert witness at the arbitration hearing. With respect to each such expert, please state the subject matter on which the expert is expected to testify, the substance of the facts and opinions to which the expert is expected to testify, and the summary of the grounds for each opinion.

Response:

Lee L. Selwyn. Please see the prefiled Direct and Rebuttal Testimony of Lee L. Selwyn filed in this docket.

3. Identify all documents which refer to relate to any issues raised in the generic ISP proceeding that were provided or made available to any expert identified in response to Interrogatory No. 2.

Response:

Allegiance Telecom of Florida, Inc. did not provide or make available any documents to Dr. Selwyn in connection with the preparation of his prefiled Direct and Rebuttal Testimony.

5. Identify all documents upon which Allegiance intends to rely or introduce into evidence at the hearing on this matter.

Response:

Please see the prefiled Direct and Rebuttal Testimonies of Lee L. Selwyn, and Exhibits, filed in this docket.

6. Has Allegiance requested that any state commission outside of BellSouth's region arbitrate, pursuant to Section 252 of the Telecommunications Act of 1996, any of the issues raised in the generic ISP proceeding? If the answer to this Interrogatory is in the affirmative, please identify the specific issue on which arbitration was sought; identify the state commission which Allegiance sought arbitration, including the case name, docket number and date the petition was filed; and describe a particularity of the state commission's resolution of the issue and identify the state commission order in which such resolution was made.

Response:

Allegiance Telecom of Texas, Inc., an affiliate of Allegiance Telecom of Florida, Inc. participated in the so-called "Mini-Mega Arbitration" before the Public Utility Commission of Texas, Docket No. 21982.

17. Does Allegiance contend that there is a difference between the place where a call "terminates" for jurisdictional purposes and the place where a call "terminates" for reciprocal compensation purposes? If the answer to the foregoing is in the affirmative, please: (a) explain in detail the distinction between call termination for jurisdictional and reciprocal compensation purposes; (b) state the date and describe the circumstances when Allegiance first concluded that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (c) state the date and describe the circumstances when Allegiance first stated publicly that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (d) identify all documents that refer or relate to or support a distinction between call termination for jurisdictional and reciprocal compensation purposes; (e) identify all internal Allegiance memoranda or other documents that discuss, relate to or touch upon the issue of whether reciprocal compensation may be owed for calls delivered to ISPs.

Response:

Allegiance adopts Global NAPs' response to Interrogatory No. 17 set forth in BellSouth's First Set of Interrogatories.

18. Has Allegiance provided telecommunications services to any person with whom Allegiance has entered into any arrangement or agreement that involves the sharing of reciprocal compensation received by Allegiance from BellSouth? If the answer to the foregoing is in the affirmative, identify the person, describe the telecommunications services Allegiance has provided, and identify all documents referring or relating to such telecommunications services.

Response:

No.

19. Identify all state and federal legal authority that supports Allegiance's contention that traffic to ISPs is local traffic.

Response:

Allegiance adopts Global NAPs' response to Interrogatoary No. 19 set forth in BellSouth's First Set of Interrogatories.

20. State the rate you contend is appropriate for reciprocal compensation for ISP bound traffic, and separately state the rate you contend is appropriate for local traffic, if that is a different figure. In answering this Interrogatory, state with particularity how the rate(s) were calculated and identify any analyses, cost studies, or other reports that support your rates.

Response:

The appropriate reciprocal compensation rate for local traffic, inclusive of ISP-bound traffic, is the Commission-approved rate for termination of traffic to an ILEC or ILECs in the state. Please refer to Commission docket 990649-TP for the currently approved rates.

21. If not provided in a previous answer, has Allegiance ever taken the position before a regulatory body that ISP traffic is interstate or non-local traffic? If so, identify the proceeding wherein Allegiance took said position, including the name and date of any documents wherein said position was expressed.

Response:

Allegiance's most recent statements with regard to this issue were made in response to the FCC's proceedings on the remand of the *Declaratory Ruling* following the D.C. Circuit's decision in *Bell Atlantic v. FCC, supra*. BellSouth was active participant in those proceeding and already has copies of Allegiance's filings.

26. Will Allegiance admit that ISPs are also enhanced service providers? If not, please provide the basis for Allegiance's position including any legal authority.

Response:

Allegiance adopts Global NAPs' response to Interrogatory No. 26 set forth in BellSouth's First Set of Interrogatories.

27. Will Allegiance admit that enhanced service providers are exchange access users? If not, please provide the basis for Allegiance's position, including any legal authority.

Response:

Allegiance adopts Global NAPs' response to Interrogatory No. 27 set forth in BellSouth's First Set of Interrogatories.

28. Will Allegiance admit that enhanced service providers generally pay local business rates and interstate subscriber line charges for their switched access connection to local exchange companies central offices? If not, please provide the basis for Allegiance's position, including any legal authority.

Response:

Allegiance adopts Global NAPs' response to Interrogatory No. 28 set forth in BellSouth's First Set of Interrogatories.

Allegiance\Allegiance.responses

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 17

PARTY: AT&T Communications of the Southern States, Inc.

DESCRIPTION:

1. AT&T's responses to BellSouth's First Set of Interrogatories and First set of Requests for Production of Documents.

PROFFERING PARTY: STAFF

I.D. # Stip-17

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 000075-TP EXHIBIT NO 17
COMPANY/
WITNESS. FPSC Staff
DATE: 3-7-98-01

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996.	)))))	Docket No. 000075-TP

AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S RESPONSES TO BELLSOUTH TELECOMMUNICATIONS, INC.'S FIRST SET OF INTERROGATORIES

AT&T Communications, Inc. ("AT&T") hereby submits its Responses to those Interrogatories set forth in the First Set of Interrogatories served by BellSouth Telecommunications, Inc. ("BellSouth") that are not subject to the specific objections to BellSouth's First Set of Interrogatories previously filed by AT&T on February 12, 2001.

1. Identify all persons participating in the preparation of the answers to these interrogatories or supplying information used in connection therewith.

Response:

Gregory R. Follensbee, AT&T, Division Manager, Law and Government Affairs.

2. Identify each person whom you expect to call as an expert witness at the arbitration hearing. With respect to each such expert, please state the subject matter on which the expert is expected to testify, the substance of the facts and opinions to which the expert is expected to testify, and the summary of the grounds for each opinion.

Response:

Lee Selwyn. His testimony contains responses to the rest of this interrogatory.

3. Identify all documents which refer or relate to any issues raised in the generic ISP proceeding that were provided or made available to any expert identified in response to Interrogatory No. 2.

Response:

A spreadsheet containing BellSouth-Florida's approved TELRIC cost study results for Unbundled Network Elements, which was admitted into the record in Docket No. 990649-TP.

5. Identify all documents upon which AT&T intends to rely or introduce into evidence at the hearing on this matter.

Response:

AT&T intends to rely upon the prefiled direct testimony and exhibits and prefiled rebuttal testimony of Dr. Lee L. Selwyn. AT&T reserves the right to introduce additional documents for purposes of cross-examination or to respond to cross-examination of Dr. Selwyn.

6. Has AT&T requested that any state commission outside of BellSouth's region arbitrate, pursuant to Section 252 of the Telecommunications Act of 1996, any of the issues raised in the generic ISP proceeding? If the answer to this Interrogatory is in the affirmative, please identify the specific issue on which arbitration was sought; identify the state commission which AT&T sought arbitration, including the case name, docket number and date the petition was filed; and describe a particularity of the state commission's resolution of the issue and identify the state commission order in which such resolution was made.

Response:

AT&T objects to BellSouth's Interrogatory No. 6 on the grounds that the information requested is overly broad and unduly burdensome, and the requested information is available to BellSouth in publicly filed documents. AT&T also objects on relevancy grounds insofar as Interrogatory No. 6 requests information filed by AT&T outside BellSouth's region. However, in an effort to comply with BellSouth's request, AT&T herein identifies any state commission within BellSouth's region wherein AT&T requested the Commission to arbitrate the issues raised in this generic ISP proceeding.

The following issue has been included in AT&T's request for arbitration under Section 252 of the Telecommunications Act of 1996 in all nine states where BellSouth provides local service:

Should calls to Internet service providers be treated as local traffic for the purposes of reciprocal compensation?

The following is the information requested on each petition.

STATE	DOCKET NUMBER	DATE PETITION FILED	COMMISSION RESOLUTION	STATE ORDER
AL	27889	11/8/00	Petition has not yet been heard	N/A
FL	000731-TP	6/16/00	Issue transferred to Generic ISP proceeding	N/A
GA	11853	2/4/00	Issue heard, but no decision rendered	N/A
KY	2000-465	10/5/00	Petition has not yet been heard	N/A
LA	U-25264	10/4/00	Issue transferred to Generic ISP proceeding	N/A
MS	2000-AD-214	3/15/00	The parties settled the issue.	N/A
NC	P-140, Sub 73 and P-646, Sub 7	4/27/00	The parties settled the issue.	N/A
SC	2000-527-C	10/18/00	Commission determined ISP bound traffic was not local traffic for purposes of reciprocal compensation	Order No. 2001-079
TN	00-00079	2/4/00	Petition has not yet been heard	N/A

17. Does AT&T contend that there is a difference between the place where a call "terminates" for jurisdictional purposes and the place where a call "terminates" for reciprocal compensation purposes? If the answer to the foregoing is in the affirmative, please: (a) explain in detail the distinction between call termination for jurisdictional and reciprocal compensation purposes; (b) state the date and describe the circumstances when AT&T first concluded that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (c) state the date and describe the circumstances when AT&T first stated publicly that there was a distinction between call termination for jurisdictional and reciprocal compensation purposes; (d) identify all documents that refer or relate to or support a distinction between call termination for jurisdictional and reciprocal compensation purposes; (e) identify all internal AT&T memoranda or other documents that discuss, relate to or touch upon the issue of whether reciprocal compensation may be owed for calls delivered to ISPs.

Response:

In its Public Notice issued June 26, 2000, the FCC has asked for public comment on this issue. AT&T is providing a copy of its response to the FCC's Public Notice. As set forth in the response to Interrogatory No. 21, regardless of whether a dial-up ISP-bound call is considered jurisdictionally interstate or intrastate, which may involve consideration of where the call "terminates," compensation should be paid by the originating carrier to the terminating carrier for costs involved in transporting and terminating the call. AT&T's position on this issue is fully set forth in its Comments filed on July 21, 2000 in FCC Docket Nos. 96-98 and 99-68 regarding Inter-Carrier Compensation for ISP-bound traffic. A copy of AT&T's Comments will be provided to BellSouth.

18. Has AT&T provided telecommunications services to any person with whom AT&T has entered into any arrangement or agreement that involves the sharing of reciprocal compensation received by AT&T from BellSouth? If the answer to the foregoing is in the affirmative, identify the person, describe the telecommunications services AT&T has provided, and identify all documents referring or relating to such telecommunications services.

Response:

No.

19. Identify all state and federal legal authority that supports AT&T's contention that traffic to ISPs is local traffic.

Response:

The rulings of individual state commissions and the FCC on this issue are quite numerous, and are as available to BellSouth as to AT&T.

20. State the rate you contend is appropriate for reciprocal compensation for ISP bound traffic, and separately state the rate you contend is appropriate for local traffic, if that is a different figure. In answering this Interrogatory, state with particularity how the rate(s) were calculated and identify any analyses, cost studies, or other reports that support your rates.

Response:

The rates proposed for both ISP-bound traffic and local traffic can be found in Docket No. 990649-TP, revised King Exhibit JAK-1, a copy of which has been produced as Attachment 3 in response to BellSouth's First Set of Requests for Production of Documents to A&T. AT&T is not proposing different rates be charged. Also see the prefiled direct testimony of Dr. Selwyn at pages 69 and 70.

21. If not provided in a previous answer, has AT&T ever taken the position before a regulatory body that ISP traffic is interstate or non-local traffic? If so, identify the proceeding wherein AT&T took said position, including the name and date of any documents wherein said position was expressed.

Response:

See response to Interrogatory No. 17. All legal authority is cited in AT&T's Comments.

26. Will AT&T admit that ISPs are also enhanced service providers? If not, please provide the basis for AT&T's position including any legal authority.

Response:

Yes.

27. Will AT&T admit that enhanced service providers are exchange access users? If not, please provide the basis for AT&T's position, including any legal authority.

Response:

No. For purposes of issues relevant to this proceeding, enhanced service providers are treated like any other end user of local telephone exchange services. In fact, the FCC ordered that they were to be treated as such in granting ESPs an exemption from payment of access charges. AT&T suggests that the FCC's orders speak for themselves.

28. Will AT&T admit that enhanced service providers generally pay local business rates and interstate subscriber line charges for their switched access connection to local exchange companies central offices? If not, please provide the basis for AT&T's position, including any legal authority.

Response:

No. Information service providers pay local business rates and interstate subscriber line charges for their connections to the public switched network because for legal and regulatory purposes they are end users, not carriers. They do not offer "telephone toll services" and therefore do not use "exchange access." The legal authority for this conclusion is cited above in response to Interrogatories 17 and 26.

AT&T\new.inter

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into appropriate methods to compensate carriers for exchange of traffic subject to Section 251 of the Telecommunications Act of 1996.	)))))	Docket No. 000075-TP

AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.'S RESPONSES TO BELLSOUTH TELECOMMUNICATIONS, INC.'S FIRST SET OF REQUESTS FOR PRODUCTION OF DOCUMENTS

AT&T Communications of the Southern States, Inc. ("AT&T") hereby submits its Responses to those Requests set forth in the First Set of Requests for Production of Documents served by BellSouth Telecommunications, Inc. ("BellSouth") that are not subject to the specific objections to BellSouth's First Set of Requests for Production of Documents previously filed by AT&T on February 12, 2001.

1. Produce copies of all documents identified in response to BellSouth's First Set of Interrogatories to AT&T.

Response:

AT&T is producing herein copies of: (1) BellSouth-Florida's approved TELRIC cost study results for Unbundled Network Elements (revised King Exhibit JAK-1) admitted into the record in Docket No. 990649-TP (Attachment 1); and (2) the Comments of AT&T dated July 21, 2000 and filed with the Federal Communications Commission in CC Docket Nos. 96-98 and 99-68 (Attachment 2). Copies of the prefiled direct and rebuttal testimony of Lee L. Selwyn have previously been provided to all parties in this docket.

3. Produce all documents upon which AT&T intends to rely or introduce into evidence in this matter.

Response:

Please see AT&T's response to BellSouth's First Set of Interrogatories, No. 5.

5. Identify any and all cost studies, evaluations, reports or analyses prepared by or for AT&T concerning any issue raised in the Generic ISP proceeding.

Response:

Please see the Direct Testimony of Lee L. Selwyn filed in this docket, and the copy of Table 1 served by AT&T in response to PSC Staff's Interrogatory No. 5(b) which is produced herewith as Attachment 3.

24. Produce any document relied upon by AT&T in preparing any answer to any Interrogatory in this proceeding.

Response:

Please see the Direct and Rebuttal Testimony of Lee L. Selwyn filed in this docket, and the documents produced by AT&T in response to BellSouth's First Set of Requests for Production of Documents, Nos. 1, 3 and 5.

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BellSouth Cost Calculator 2.4 - Element Summary Report
Recurring Costs

Study Name:	Florida Docket No 990649-TP Revision 08-16-00
State:	Florida
Scenario:	State Average Run - 08-09-00
Study Type:	TELRIC

Cost Element	Description	Revised Recurring	Difference From Original	% Diff
A.0	UNBUNDLED LOCAL LOOP			
A.1	2-WIRE ANALOG VOICE GRADE LOOP			
A.1.1	2-Wire Analog Voice Grade Loop - Service Level 1	$18.04	$0.16	0.89%
A.1.2	2-Wire Analog Voice Grade Loop - Service Level 2	$20.35	$0.15	0.74%
A.1.8	Engineering Information Per 2-Wire Analog Voice Grade Loop - Service Level 1		DELETED	
A.2	SUB-LOOP			
A.2.1	Sub-Loop Feeder Per 2-Wire Analog Voice Grade Loop	$11.18	$2.61	30.46%
A.2.2	Sub-Loop Distribution Per 2-Wire Analog Voice Grade Loop	$10.98	$0.14	1.29%
A.2.11	Sub-Loop Distribution Per 4-Wire Analog Voice Grade Loop	$11.72	$1.96	20.08%
A.2.14	2-Wire Intrabuilding Network Cable (INC)	$3.87	-$0.03	-0.77%
A.2.15	4-Wire Intrabuilding Network Cable (INC)	$7.32	-$0.06	-0.81%
A.2.22	Sub-Loop - Per Building Equipment Room - CLEC Distribution Facility Set-Up		DELETED	
A.2.23	Sub-Loop - Per 2-Wire Analog Voice Grade Loop SL2 / Feeder Only		DELETED	
A.2.24	Sub-Loop - Per 4-Wire Analog Voice Grade Loop / Feeder Only	$24.21	$0.92	3.95%
A.2.25	Sub-Loop - Per 2-Wire ISDN Digital Grade Loop / Feeder Only	$23.34	$0.21	0.91%
A.2.29	Sub-Loop - Per 4-Wire 56 or 64 Kbps Digital Grade Loop / Feeder Only	$25.95	-$0.52	-1.96%
A.2.30	Sub-Loop - Per 2-Wire Copper Loop Short / Feeder Only	$10.40	$0.09	0.87%
A.2.32	Sub-Loop - Per 4-Wire Copper Loop Short / Feeder Only	$20.65	-$1.75	-7.81%
A.2.40	Sub-Loop - Per 2-Wire Copper Loop Short / Distribution Only	$9.02	-$0.01	-0.11%
A.2.42	Sub-Loop - Per 4-Wire Copper Loop Short / Distribution Only	$7.54	$0.57	8.18%
A.3	LOOP CHANNELIZATION AND CO INTERFACE (INSIDE CO)			
A.3.12	Unbundled Loop Concentration - System A (TR008)	$470.73	-$3.51	-0.74%
A.3.13	Unbundled Loop Concentration - System B (TR008)	$55.96	-$0.42	-0.74%
A.3.14	Unbundled Loop Concentration - System A (TR303)	$510.37	-$3.79	-0.74%
A.3.15	Unbundled Loop Concentration - System B (TR303)	$94.30	-$0.71	-0.75%
A.3.16	Unbundled Loop Concentration - DS1 Line Interface Card	$5.28	-$0.04	-0.75%
A.3.17	Unbundled Loop Concentration - POTS Card	$2.10	-$0.01	-0.47%
A.3.18	Unbundled Loop Concentration - ISDN (Brite Card)	$8.38	-$0.06	-0.71%

ATTACHMENT 1

BellSouth Cost Calculator 2.4 - Element Summary Report
Recurring Costs

Study Name:	Florida Docket No 990649-TP Revision 08-16-00
State:	Florida
Scenario:	State Average Run - 08-09-00
Study Type:	TELRIC

Cost Element	Description	Revised Recurring	Difference From Original	% Diff
A.3.19	Unbundled Loop Concentration - SPOTS Card	$12.46	-$0.09	-0.72%
A.3.20	Unbundled Loop Concentration - Specials Card	$7.43	-$0.06	-0.80%
A.3.21	Unbundled Loop Concentration - TEST CIRCUIT Card	$36.31	-$0.28	-0.77%
A.3.22	Unbundled Loop Concentration - Digital 19, 56, 64 Kbps Data	$11.01	-$0.08	-0.72%
A.4	4-WIRE ANALOG VOICE GRADE LOOP			
A.4.1	4-Wire Analog Voice Grade Loop	$32.41	$1.39	4.48%
A.5	2-WIRE ISDN DIGITAL GRADE LOOP			
A.5.1	2-Wire ISDN Digital Grade Loop	$30.01	$0.21	0.70%
A.5.6	Universal Digital Channel	$30.01	NEW	
A.6	2-WIRE ASYMMETRICAL DIGITAL SUBSCRIBER LINE (ADSL) COMPATIBLE LOOP			
A.6.1	2-Wire Asymmetrical Digital Subscriber Line (ADSL) Compatible Loop	$18.06	-$0.07	-0.39%
A.7	2-WIRE HIGH BIT RATE DIGITAL SUBSCRIBER LINE (HDSL) COMPATIBLE LOOP			
A.7.1	2-Wire High Bit Rate Digital Subscriber Line (HDSL) Compatible Loop	$14.17	$0.00	0.00%
A.8	4-WIRE HIGH BIT RATE DIGITAL SUBSCRIBER LINE (HDSL) COMPATIBLE LOOP			
A.8.1	4-Wire High Bit Rate Digital Subscriber Line (HDSL) Compatible Loop	$22.49	-$0.47	-2.05%
A.9	4-WIRE DS1 DIGITAL LOOP			
A.9.1	4-Wire DS1 Digital Loop	$100.25	$3.79	3.93%
A.9.2	Sub-Loop Feeder Per 4-Wire DS1 Digital Loop	$63.02	$3.05	5.09%
A.10	4-WIRE 19, 56 OR 64 KBPS DIGITAL GRADE LOOP			
A.10.1	4-Wire 19, 56 or 64 Kbps Digital Grade Loop	$36.94	-$0.04	-0.11%
A.12	CONCENTRATION PER SYSTEM PER FEATURE ACTIVATED (OUTSIDE CENTRAL OFFICE)			
A.12.1	Unbundled Loop Concentration - System A (TR008)	$477.76	-$3.11	-0.65%
A.12.2	Unbundled Loop Concentration - System B (TR008)	$85.12	-$0.18	-0.21%
A.12.3	Unbundled Loop Concentration - System A (TR303)	$512.86	-$3.37	-0.65%

BellSouth Cost Calculator 2.4 - Element Summary Report
Recurring Costs

Study Name:	Florida Docket No 990649-TP Revision 08-16-00
State:	Florida
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Study Type:	TELRIC

Cost Element	Description	Revised Recurring	Difference From Original	% Diff
A.12.4	Unbundled Loop Concentration - System B (TR303)	$120.21	-$0.45	-0.37%
A.12.5	Unbundled Sub-loop Concentration - USLC Feeder Interface	$61.24	$0.08	0.13%
A.12.6	Unbundled Loop Concentration - POTS Card	$2.12	-$0.02	-0.93%
A.12.7	Unbundled Loop Concentration - ISDN (Brite Card)	$8.48	-$0.07	-0.82%
A.12.8	Unbundled Loop Concentration - SPOTS Card	$12.61	-$0.09	-0.71%
A.12.9	Unbundled Loop Concentration - Specials Card	$7.52	-$0.06	-0.79%
A.12.10	Unbundled Loop Concentration - TEST CIRCUIT Card	$36.76	-$0.27	-0.73%
A.12.11	Unbundled Loop Concentration - Digital 19, 56, 64 Kbps Data	$11.14	-$0.08	-0.71%
A.13	2-WIRE COPPER LOOP			
A.13.1	2-Wire Copper Loop - short	$18.06	-$0.07	-0.39%
A.13.7	2-Wire Copper Loop - long	$53.24	$0.58	1.10%
A.14	4-WIRE COPPER LOOP			
A.14.1	4-Wire Copper Loop - short	$26.05	-$1.36	-4.96%
A.14.7	4-Wire Copper Loop - long	$93.13	$2.74	3.03%
A.15	UNBUNDLED NETWORK TERMINATING WIRE (NTW)			
A.15.1	Unbundled Network Terminating Wire (NTW) per Pair	$0.4555	-$0.0036	-0.78%
A.16	HIGH CAPACITY UNBUNDLED LOCAL LOOP			
A.16.1	High Capacity Unbundled Local Loop - DS3 - Facility Termination	$404.58	-$3.00	-0.74%
A.16.2	High Capacity Unbundled Local Loop - DS3 - Per Mile	$11.77	-$0.20	-1.67%
A.16.4	High Capacity Unbundled Local Loop - OC3 - Facility Termination	$646.60	-$4.80	-0.74%
A.16.5	High Capacity Unbundled Local Loop - OC3 - Per Mile	$8.93	-$0.15	-1.65%
A.16.7	High Capacity Unbundled Local Loop - OC12 - Facility Termination	$2,053	-$15.00	-0.73%
A.16.8	High Capacity Unbundled Local Loop - OC12 - Per Mile	$10.99	-$0.19	-1.70%
A.16.10	High Capacity Unbundled Local Loop - OC48 - Facility Termination	$1,686	-$13.00	-0.77%
A.16.11	High Capacity Unbundled Local Loop - OC48 - Per Mile	$36.04	-$0.63	-1.72%
A.16.13	High Capacity Unbundled Local Loop - OC48 - Interface OC12 on OC48	$587.71	-$4.38	-0.74%
A.16.15	High Capacity Unbundled Local Loop - STS-1 - Facility Termination	$446.09	-$3.31	-0.74%
A.16.16	High Capacity Unbundled Local Loop - STS-1 - Per Mile	$11.77	-$0.20	-1.67%

BellSouth Cost Calculator 2.4 - Element Summary Report
Recurring Costs

Study Name:	Florida Docket No 990649-TP Revision 08-16-00
State:	Florida
Scenario:	State Average Run - 08-09-00
Study Type:	TELRIC

Cost Element	Description	Revised Recurring	Difference From Original	% Diff
A.18	MULTIPLEXERS			
A.18.1	Channelization - Channel System DS1 to DS0	$153.60	-$1.14	-0.74%
A.18.2	Interface Unit - Interface DS1 to DS0 - OCU-DP Card	$2.20	-$0.02	-0.90%
A.18.3	Interface Unit - Interface DS1 to DS0 - BRITE Card	$3.83	-$0.03	-0.78%
A.18.4	Interface Unit - Interface DS1 to DS0 - Voice Grade Card	$1.45	-$0.01	-0.68%
A.18.5	Channelization - Channel System DS3 to DS1	$220.97	-$1.64	-0.74%
A.18.6	Interface Unit - Interface DS3 to DS1	$14.40	-$0.11	-0.76%
B.0	UNBUNDLED LOCAL EXCHANGE PORTS AND FEATURES			
B.1	EXCHANGE PORTS			
B.1.1	Exchange Ports - 2-Wire Analog Line Port (Res., Bus., Centrex, Coin)	$1.62	-$0.01	-0.61%
B.1.2	Exchange Ports - 4-Wire Analog Voice Grade Port	$8.74	-$0.07	-0.79%
B.1.3	Exchange Ports - 2-Wire DID Port	$9.38	-$0.22	-2.29%
B.1.4	Exchange Ports - DDITS Port	$63.31	-$0.54	-0.85%
B.1.5	Exchange Ports - 2-Wire ISDN Port	$10.20	$0.66	6.92%
B.1.6	Exchange Ports - 4-Wire ISDN DS1 Port	$95.39	-$0.95	-0.99%
B.1.7	Exchange Ports - 2-Wire Analog Line Port (PBX)	$1.62	-$0.01	-0.61%
B.4	FEATURES			
B.4.10	Centrex Functionality	$0.8903	-$0.01	-1.15%
B.4.13	Features per port	$3.40	-$0.24	-6.59%
C.0	UNBUNDLED SWITCHING AND LOCAL INTERCONNECTION			
C.1	END OFFICE SWITCHING			
C.1.1	End Office Switching Function, Per MOU	$0.0008846	-$0.0000095	-1.06%
C.1.2	End Office Trunk Port - Shared, Per MOU	$0.0001893	-$0.0000017	-0.89%
C.2	TANDEM SWITCHING			
C.2.1	Tandem Switching Function Per MOU	$0.0001522	-$0.0000023	-1.49%

BellSouth Cost Calculator 2.4 - Element Summary Report
Recurring Costs

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Cost Element	Description	Revised Recurring	Difference From Original	% Diff
C.2.2	Tandem Trunk Port - Shared, Per MOU	$0.0002713	-$0.0000024	-0.88%
D.0	UNBUNDLED TRANSPORT AND LOCAL INTEROFFICE TRANSPORT			
D.1	COMMON TRANSPORT			
D.1.1	Common Transport - Per Mile, Per MOU	$0.0000039	$0.0000000	0.00%
D.1.2	Common Transport - Facilities Termination Per MOU	$0.0004579	-$0.0000036	-0.78%
D.2	INTEROFFICE TRANSPORT - DEDICATED - VOICE GRADE			
D.2.1	Interoffice Transport - Dedicated - 2-Wire Voice Grade - Per Mile	$0.0098	-$0.0002	-2.00%
D.2.2	Interoffice Transport - Dedicated - 2- Wire Voice Grade - Facility Termination	$26.52	-$0.20	-0.75%
D.3	INTEROFFICE TRANSPORT - DEDICATED - DS0 - 56/64 KBPS			
D.3.1	Interoffice Transport - Dedicated - DS0 - Per Mile	$0.0098	-$0.0002	-2.00%
D.3.2	Interoffice Transport - Dedicated - DS0 - Facility Termination	$19.31	-$0.15	-0.77%
D.4	INTEROFFICE TRANSPORT - DEDICATED - DS1			
D.4.1	Interoffice Transport - Dedicated - DS1 - Per Mile	$0.2000	-$0.0035	-1.72%
D.4.2	Interoffice Transport - Dedicated - DS1 - Facility Termination	$92.62	-$0.69	-0.74%
D.5	LOCAL CHANNEL - DEDICATED			
D.5.1	Local Channel - Dedicated - 2-Wire Voice Grade	$29.98	$3.67	13.95%
D.5.2	Local Channel - Dedicated - 4-Wire Voice Grade	$31.14	$3.66	13.32%
D.5.7	Local Channel - Dedicated - DS3 - Per Mile	$9.16	-$0.16	-1.72%
D.5.8	Local Channel - Dedicated - DS3 - Facility Termination	$556.27	-$4.12	-0.74%
D.5.10	Local Channel - Dedicated - OC3 - Per Mile	$7.69	-$0.14	-1.79%
D.5.11	Local Channel - Dedicated - OC3 - Facility Termination	$933.43	-$6.92	-0.74%
D.5.13	Local Channel - Dedicated - OC12 - Per Mile	$10.99	-$0.19	-1.70%
D.5.14	Local Channel - Dedicated - OC12 - Facility Termination	$2,733	-$20.00	-0.73%
D.5.16	Local Channel - Dedicated - OC48 - Per Mile	$36.04	-$0.63	-1.72%
D.5.17	Local Channel - Dedicated - OC48 - Facility Termination	$1,930	-$14.00	-0.72%
D.5.19	Local Channel - Dedicated - OC48 - Interface OC12 on OC48	$581.95	-$4.33	-0.74%

BellSouth Cost Calculator 2.4 - Element Summary Report
Recurring Costs

Study Name:	Florida Docket No 990649-TP Revision 08-16-00
State:	Florida
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Study Type:	TELRIC

Cost Element	Description	Revised Recurring	Difference From Original	% Diff
D.5.21	Local Channel - Dedicated - STS-1 - Facility Termination	$565.48	-$4.19	-0.74%
D.5.23	Local Channel - Dedicated - STS-1 -Per Mile	$9.16	-$0.16	-1.72%
D.5.24	Local Channel - Dedicated - DS1	$48.00	$5.02	11.68%
D.6	INTEROFFICE TRANSPORT - DEDICATED - DS3			
D.6.1	Interoffice Transport - Dedicated - DS3 - Per Mile	$4.17	-$0.08	-1.88%
D.6.2	Interoffice Transport - Dedicated - DS3 - Facility Termination	$1,122	-$8.00	-0.71%
D.7	INTEROFFICE TRANSPORT - DEDICATED - OC3			
D.7.1	Interoffice Transport - Dedicated - OC3 - Per Mile	$8.24	-$0.14	-1.67%
D.7.2	Interoffice Transport - Dedicated - OC3 - Facility Termination	$3,020	-$23	-0.76%
D.8	INTEROFFICE TRANSPORT - DEDICATED - OC12			
D.8.1	Interoffice Transport - Dedicated - OC12 - Per Mile	$26.45	-$0.46	-1.71%
D.8.2	Interoffice Transport - Dedicated - OC12 - Facility Termination	$11,599	-$86	-0.74%
D.9	INTEROFFICE TRANSPORT - DEDICATED - OC48			
D.9.1	Interoffice Transport - Dedicated - OC48 - Per Mile	$34.07	-$0.59	-1.70%
D.9.2	Interoffice Transport - Dedicated - OC48 - Facility Termination	$12,461	-$93	-0.74%
D.9.4	Interoffice Transport - Dedicated - OC48 - Interface OC12 on OC48	$1,199	-$9	-0.75%
D.10	INTEROFFICE TRANSPORT - DEDICATED - STS-1			
D.10.1	Interoffice Transport - Dedicated - STS-1 - Per Mile	$4.17	-$0.08	-1.88%
D.10.2	Interoffice Transport - Dedicated - STS-1 - Facility Termination	$1,106	-$8	-0.72%
D.12	INTEROFFICE TRANSPORT - DEDICATED - 4-WIRE VOICE GRADE			
D.12.1	Interoffice Transport - Dedicated - 4-Wire Voice Grade - Per Mile	$0.0098	-$0.0002	-2.00%
D.12.2	Interoffice Transport - Dedicated - 4-Wire Voice Grade - Facility Termination	$23.64	-$0.18	-0.76%
E.0	SIGNALING NETWORK, DATA BASES, & SERVICE MANAGEMENT SYSTEMS			
E.1	800 ACCESS TEN DIGIT SCREENING			

BellSouth Cost Calculator 2.4 - Element Summary Report
Recurring Costs

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Cost Element	Description	Revised Recurring	Difference From Original	% Diff
E.1.1	800 Access Ten Digit Screening, Per Call	$0.0006531	-$0.0000052	-0.79%
E.1.9	800 Access Ten Digit Screening, w/ 8FL No. Delivery	$0.0006531	-$0.0000052	-0.79%
E.1.10	800 Access Ten Digit Screening, w/ POTS No. Delivery	$0.0006531	-$0.0000052	-0.79%
E.2	LINE INFORMATION DATA BASE ACCESS (LIDB)			
E.2.1	LIDB Common Transport Per Query	$0.0000234	-$0.0000002	-0.85%
E.2.2	LIDB Validation Per Query	$0.0137460	-$0.0001079	-0.78%
E.3	CCS7 SIGNALING TRANSPORT			
E.3.1	CCS7 Signaling Connection, Per 56Kbps Facility	$18.78	-$0.15	-0.79%
E.3.2	CCS7 Signaling Termination, Per STP Port	$154.51	-$1.32	-0.85%
E.3.3	CCS7 Signaling Usage, Per Call Setup Message	$0.0000166	-$0.0000002	-1.19%
E.3.4	CCS7 Signaling Usage, Per TCAP Message	$0.0000666	-$0.0000005	-0.75%
E.3.7	CCS7 Signaling Connection, Per link (A link)	$18.78	-$0.15	-0.79%
E.3.8	CCS7 Signaling Connection, Per link (B link) (also known as D link)	$18.78	-$0.15	-0.79%
E.3.9	CCS7 Signaling Usage, Per ISUP Message	$0.0000166	-$0.0000002	-1.19%
E.3.10	CCS7 Signaling Usage Surrogate, per link	$761.79	-$6.32	-0.82%
E.4	BELLSOUTH CALLING NAME (CNAM) DATABASE (DB) SERVICE			
E.4.5	CNAM for DB and Non DB Owners, Per Query	$0.0010353	-$0.0000082	-0.79%
E.6	LNP QUERY SERVICE			
E.6.1	LNP Cost Per query	$0.0008720	-$0.0000070	-0.80%
G.0	SELECTIVE ROUTING			
G.11	SELECTIVE CARRIER ROUTING (AIN SOLUTION)			
G.11.4	Query Cost	$0.0034057	-$0.0000291	-0.85%
I.0	INTERIM SERVICE PROVIDER NUMBER PORTABILITY			
I.1	INTERIM SERVICE PROVIDER NUMBER PORTABILITY - RCF			

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Cost Element	Description	Revised Recurring	Difference From Original	% Diff
I.1.1	Service Provider Number Portability - RCF, Per Number Ported	$2.37	$0.06	2.60%
I.1.2	Service Provider Number Portability - RCF, Per Additional Path	$0.8288	-$0.0083	-0.99%
I.2	SERVICE PROVIDER NUMBER PORTABILITY - DID			
I.2.4	Service Provider Number Portability - DID, Per Trunk Termination, Initial	$63.31	-$0.54	-0.85%
I.2.5	Service Provider Number Portability - DID, Per Trunk Termination, Subsequent	$63.31	-$0.54	-0.85%
I.4	SERVICE PROVIDER NUMBER PORTABILITY RIPH			
I.4.3	Service Provider Number Portability - RI-PH, Per Number Ported	$2.11	-$0.89	-29.67%
J.0	OTHER			
J.1	DARK FIBER			
J.1.2	Dark Fiber, Per Four Fiber Strands, Per Route Mile or Fraction Thereof - Local Channel/Loop	$58.35	-$0.68	-1.15%
J.1.3	Dark Fiber, Per Four Fiber Strands, Per Route Mile or Fraction Thereof - Interoffice	$28.82	-$0.46	-1.57%
J.3	LOOP MAKE-UP			
J.3.1	Mechanized Loop Make-up	$0.6888	-$0.3912	-36.22%
J.4	LINE SHARING SPLITTER - DATA		DELETED	
J.4.1	Line Sharing Splitter, per System 96 Line Capacity		DELETED	
J.4.2	Line Sharing Splitter, per System 24 Line Capacity		DELETED	
J.4.3	Line Sharing Splitter - per Line Activation		DELETED	
J.4.4	Line Sharing Splitter - per Subsequent Activity per Line Rearrangement		DELETED	
J.5	ACCESS TO THE DCS			
J.5.2	DS1 DCS Termination with DS0 Switching	$28.51	-$0.21	-0.73%
J.5.3	DS1 DCS Termination with DS1 Switching	$12.14	-$0.09	-0.74%
J.5.4	DS3 DCS Termination with DS1 Switching	$153.17	-$1.14	-0.74%
K.0	ADVANCED INTELLIGENT NETWORK (AIN) SERVICES			

BellSouth Cost Calculator 2.4 - Element Summary Report
Recurring Costs

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Study Type:	TELRIC

Cost Element	Description	Revised Recurring	Difference From Original	% Diff
K.1	BELLSOUTH AIN SMS ACCESS SERVICE			
K.1.6	AIN SMS Access Service - Storage, Per Unit (100 Kilobytes)	$0.0030	$0.0000	0.00%
K.1.7	AIN SMS Access Service - Session, Per Minute	$0.8102	-$0.0063	-0.77%
K.1.8	AIN SMS Access Service - Company Performed Session, Per Minute	$0.8348	-$0.0065	-0.77%
K.2	BELLSOUTH AIN TOOLKIT SERVICE			
K.2.9	AIN Toolkit Service - Query Charge, Per Query	$0.0549426	$0.0005488	1.01%
K.2.10	AIN Toolkit Service - Type 1 Node Charge, Per AIN Toolkit Subscription, Per Node, Per Query	$0.0067157	-$0.0000542	-0.80%
K.2.11	AIN Toolkit Service - SCP Storage Charge, Per SMS Access Account, Per 100 Kilobytes	$0.07	$0.00	0.00%
K.2.12	AIN Toolkit Service - Monthly report - Per AIN Toolkit Service Subscription	$12.23	-$0.10	-0.81%
K.2.13	AIN Toolkit Service - Special Study - Per AIN Toolkit Service Subscription	$3.89	-$0.03	-0.77%
K.2.14	AIN Toolkit Service - Call Event Report - Per AIN Toolkit Service Subscription	$8.48	-$0.06	-0.70%
K.2.15	AIN Toolkit Service - Call Event Special Study - Per AIN Toolkit Service Subscription	$0.13	$0.00	0.00%
L.0	ACCESS DAILY USAGE FILE (ADUF)			
L.1	ACCESS DAILY USAGE FILE (ADUF)			
L.1.1	ADUF, Message Processing, per message	$0.014367	-$0.0001130	-0.78%
L.1.3	ADUF, Data Transmission (CONNECT:DIRECT), per message	$0.00012975	-$0.0000010	-0.77%
M.0	DAILY USAGE FILES			
M.1	ENHANCED OPTIONAL DAILY USAGE FILE			
M.1.1	Enhanced Optional Daily usage File: Message Processing, Per Message	$0.228759	-$0.0017930	-0.78%
M.2	OPTIONAL DAILY USAGE FILE			
M.2.1	Optional Daily Usage File: Recording, per Message	$0.0000082	-$0.0000001	-1.20%
M.2.2	Optional Daily Usage File: Message Processing, Per Message	$0.006814	-$0.0000540	-0.79%
M.2.3	Optional Daily Usage File: Message Processing, Per Magnetic Tape Provisioned	$48.78	-$0.38	-0.77%
M.2.4	Optional Daily Usage File: Data Transmission (CONNECT:DIRECT), Per Message	$0.00010812	-$0.0000008	-0.78%
P.0	UNBUNDLED LOOP COMBINATIONS			

BellSouth Cost Calculator 2.4 - Element Summary Report
Recurring Costs

Study Name:	Florida Docket No 990649-TP Revision 08-16-00
State:	Florida
Scenario:	State Average Run - 08-09-00
Study Type:	TELRIC

Cost Element	Description	Revised Recurring	Difference From Original	% Diff
P.1	2-WIRE VOICE GRADE LOOP WITH 2-WIRE LINE PORT (RES, BUS, COIN, CENTREX, PBX)			
P.1.1	2-Wire Voice Grade Loop	$16.65	$0.19	1.15%
P.1.2	Exchange Port - 2-Wire Line Port	$1.35	-$0.08	-5.59%
P.3	2-WIRE VOICE GRADE LOOP WITH 2-WIRE DID TRUNK PORT			
P.3.2	Exchange Ports - 2-Wire DID Port for Combinations	$9.36	NEW	
P.4	2-WIRE ISDN DIGITAL GRADE LOOP WITH 2-WIRE ISDN DIGITAL LINE SIDE PORT			
P.4.1	2-Wire ISDN Digital Grade Loop	$23.99	$0.24	1.01%
P.4.2	Exchange Port - 2-Wire ISDN Line Side Port	$8.51	$0.62	7.86%
Q.0	D4 CHANNEL BANKS			
Q.1	D4 CHANNEL BANKS CENTRAL OFFICE			
Q.1.1	D4 Channel Bank Inside CO - System	$123.64	-$0.92	-0.74%
Q.1.3	Unbundled Loop Concentration - ISDN (Brite Card)	$3.06	-$0.02	-0.65%
Q.1.4	Unbundled Loop Concentration - POTS Card	$0.6704	-$0.01	-0.74%

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Implementation of the Local Competition Provisions in the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
Inter-Carrier Compensation for ISP-Bound Traffic	)	CC Docket No. 99-68

COMMENTS OF AT&T CORP.

Mark C. Rosenblum
Stephen C. Garavito
Teresa Marrero
AT&T CORP.
295 North Maple Avenue
Basking Ridge, NJ 07920
(908) 221-8100

David W. Carpenter
David L. Lawson
James P. Young
SIDLEY & AUSTIN
1722 Eye Street
Washington, D.C. 20006
(202) 736-8677

Counsel for AT&T Corp.

July 21, 2000

ATTACHMENT 2

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Before the
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In the Matter of	)	
	)	
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	)	
Inter-Carrier Compensation for ISP-Bound Traffic	)	CC Docket No. 99-68

COMMENTS OF AT&T CORP.

Pursuant to the Commission's Public Notice, FCC 00-227, released June 23, 2000, AT&T Corp. ("AT&T") respectfully submits these comments on the standards that should govern inter-carrier compensation for traffic bound for Internet Service Providers ("ISPs") under the terms of the Act and the D.C. Circuit's decision in *Bell Atlantic Tel. Cos.* v. *FCC*, 206 F.3d 1 (D.C. Cir. 2000).

INTRODUCTION AND SUMMARY

As the Commission has recognized, both settled law and sound economics and policy dictate that a local exchange carrier ("LEC") that delivers a voice or data call originated by a customer of another LEC is entitled to cost-based compensation from the originating carrier. LECs use the same facilities in the same manner – and thus incur the same costs – delivering traffic to their dial-up ISP customers as they do delivering voice and data traffic to their other customers. And incumbent LECs have failed, despite countless opportunities before state commissions, federal courts and the Commission, to document any relevant cost differences that could justify singling out ISP-bound traffic for disparate compensation treatment.

The incumbents have nonetheless for years balked at paying any compensation at all to other LECs who deliver their dial-up ISP-bound calls, despite the costs these calls impose on the other LECs and the corresponding windfalls enjoyed by the incumbents, who would otherwise have to complete those calls themselves. State commissions and courts have almost uniformly rejected the incumbents' constantly shifting excuses for non-payment, but, in the absence of definitive guidance from the Commission, the incumbents continue to insist that they need not pay for the costs they impose. The uncertainty and costs generated by the incumbents' intransigence in this regard are potent barriers to competitive entry – carriers have quite literally been driven to the brink of bankruptcy by the incumbents' refusal to pay. This proceeding presents an opportunity for the Commission to finally put an end to this needless and anticompetitive controversy. As demonstrated below, the Commission should exercise its clear jurisdiction over ISP-bound traffic and rule that LECs must compensate each other for the delivery of ISP-bound traffic at the same cost-based rates that state commissions (and carriers) establish under 47 U.S.C. § 251 for the delivery of local voice and data traffic.

In its *Declaratory Ruling* last year,[1] the Commission concluded that the terms of § 251(b)(5) of the Act do not mandate the payment of compensation from the LECs who originate Internet-bound calls to the LECs who serve the ISPs and deliver traffic to them. In particular, the Commission had previously adopted a rule that construed § 251(b)(5)'s "reciprocal compensation" requirements as applicable not to the transport and termination of all

[1] Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 99-68, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Inter-Carrier Compensation for ISP-Bound Traffic*, CC Docket Nos. 96-98 and 99-68, 14 FCC Rcd. 3689 (1999), *vacated and remanded, Bell Atlantic Tel. Cos.* v. *FCC*, 206 F.3d 1 (D.C. Cir. 2000). In these comments, AT&T will refer to the Declaratory Ruling portion of this publication as the *Declaratory Ruling*, and the Notice of Proposed Rulemaking portion as the *NPRM*.

"telecommunications" (as the statute provides), but only to "local" calls. In its *Declaratory Ruling*, the Commission concluded that, under this construction, compensation for Internet-bound traffic is not mandated by § 251(b)(5), because this traffic is jurisdictionally interstate and, therefore in the Commission's view, cannot be "local" within the meaning of its regulation. However, while concluding that the statute did not mandate reciprocal compensation for this traffic, the Commission provided that, until such time as it adopted a specific scheme for compensation: (i) LECs should continue to pay, and receive, compensation pursuant to the provisions of the interconnection agreements that were negotiated and arbitrated under the cost-based standards of §§ 251 and 252 of the Act; and (ii) state commissions would remain free to continue to require such compensation in arbitrating new interconnection agreements pursuant to § 252.

In *Bell Atlantic*, the D.C. Circuit vacated this order and remanded for further consideration. The Court did not question – and effectively endorsed – the Commission's determination that ISP-bound traffic, because it is jurisdictionally interstate under the applicable "end-to-end" analysis, overwhelmingly results in communications between the calling party and websites located in different states. However, the Court noted that this established only that "a call is in the interstate *jurisdiction*" and therefore cannot be subjected to state commission regulation under state law. As the Court stated, it by no means followed that Internet-bound calls are not also subject to § 251(b)(5)'s *federal* standards for payment of cost-based inter-carrier compensation. The Court held that the Commission had not explained why "it made sense in terms of the statute or the Commission's own regulations" to exclude ISP-bound calls from federal reciprocal compensation merely because they are jurisdictionally interstate.

In this regard, the Court noted that the Commission has always acknowledged that calls to information services providers are jurisdictionally interstate, but recognized that such calls are unlike ordinary long distance calls. The Commission has thus treated these calls as "local" for purposes of determining the appropriate compensation for the local exchange carriers that carry the calls to the networks of information service providers.

In these comments, AT&T urges the Commission to adopt precisely this approach here. Although there is no doubt that this traffic is interstate in character and cannot be regulated under state law, this jurisdictional issue does not resolve the central issue in this proceeding: the inter-carrier compensation obligations for ISP-bound traffic. Cost-based reciprocal compensation for the delivery of ISP-bound traffic on a uniform basis with "local" voice and data traffic is compelled by the terms and purposes of § 251(b)(5) of the Act and is further consistent with the Commission's prior decisions that the same traffic is not subject to exchange access charges. Alternatively, even if the Commission were to conclude that the traffic is outside § 251(b)(5), the Commission should adopt a federal rule requiring compensation for the delivery of ISP-bound traffic at the same cost-based rates that state commissions (or the parties through negotiation) determine should be applied to other voice and data traffic. LECs use the same facilities in the same manner and incur the same costs in delivering ISP-bound calls and concededly "local" calls, and there simply is no non-arbitrary basis for treating ISP-bound traffic differently than traffic that is the same in all relevant respects.

These comments are divided into three parts. Part I will explain that calls to ISPs are integral to continuous interstate communications and are thus within the Commission's jurisdiction over interstate communications. Part II demonstrates (i) that the terms of the Act mandate reciprocal compensation for these calls, (ii) that the reason for excluding ordinary long

distance calls from the reach of § 251(b)(5) are inapplicable to ISP-bound traffic, and (iii) that it would be consistent with the Commission's prior practice to treat ISP-bound traffic as interstate for jurisdictional purposes, but "local" for purposes of inter-carrier compensation. Finally, Part III demonstrates that even if § 251(b)(5) were deemed inapplicable, the Commission can and should both adopt federal standards mandating the payment of compensation at cost-based rates, and, to avoid needless federal proceedings, require that carriers pay each other for ISP-bound traffic at the same cost-based rates established through negotiation or arbitration under §§ 251 and 252 for other voice and data traffic.

I. ISP-BOUND CALLS ARE JURISDICTIONALLY INTERSTATE AND THEREFORE CANNOT BE REGULATED UNDER STATE LAW.

The Public Notice (p. 3) requests comment "on the jurisdictional nature of ISP-bound traffic." This issue, strictly speaking, is not one that was "identified by the court in its decision." But there is no question that the ISP services, and LECs' carriage of ISP-bound traffic, are within the Commission's jurisdiction over interstate communications by wire or radio.

In *Bell Atlantic*, the Court accepted the Commission's determination that ISP-bound calls are jurisdictionally interstate services. Specifically, as the Commission had found, calls to ISPs typically result in direct, nearly instantaneous communications between the calling party and one or more websites located in other states. Under the well-settled "end-to-end" analysis that governs the determination of the scope of the Commission's jurisdiction, the D.C. Circuit accepted that this single undisputed fact establishes that ISP services, and the LECs' carriage of ISP-bound calls, are "interstate communications by wire or radio" and are within the jurisdiction of the Commission. *See Bell Atlantic*, 206 F.3d at 5, 7 ("[t]here is no dispute that the Commission has historically been justified in relying on [the end-to-end] method when

determining whether a particular communication is jurisdictionally interstate" and that the "end-to-end analysis" is "sound" for "jurisdictional purposes").

The sole basis for the D.C. Circuit's remand was its holding that the sound "arguments supporting use of the end-to-end analysis in the jurisdictional analysis [over ISP-bound calls] are not obviously transferable to th[e different] context" of determining the application of § 251(b)(5). For that reason, the Court ruled that the exclusion of ISP-bound traffic from the statutory reciprocal compensation requirements therefore could be upheld (if at all) only if further explanation and analysis were provided on remand. *Id.* at 6.

At the same time, in making the latter point, the successful petitioners and the D.C. Circuit noted a number of factual differences between ordinary interstate long distance services and the services that ISPs offer to their customers. Although these petitioners' factual claims may demonstrate that ISP-bound traffic should be regulated differently than other interstate traffic, they do *not* suggest or mean that the Commission's jurisdictional determination was incorrect. For example, petitioners asserted that ISPs are "no different" from "'pizza delivery firms, travel reservations agencies, credit card verification firms, or taxicab companies, which use a variety of communications services to provide their goods or services to their customers.'" *Bell Atlantic*, 206 F.3d at 7. But the D.C. Circuit emphasized here, too, that it was holding only that the "Commission has not satisfactorily explained why an ISP is not, *for purposes of reciprocal compensation*, 'simply a communications-intensive business end user selling a product to other consumer and business end users.'" *Id.* (emphasis added). The Commission's jurisdiction was not questioned, and ISPs and pizza delivery firms (the latter of which *are* the end-points of the wire communications) are very different for jurisdictional purposes.

In all events, there is no question that ISP services, and the LECs' carriage of ISP-bound traffic, are within the Commission's jurisdiction over interstate communications by wire or radio. The facts that establish this jurisdiction are very straightforward, and were a basis for the Commission's recent determination that DSL services are "exchange access" when they originate communications to out-of-state web sites.

ISPs lease, or sometimes own, interexchange facilities that connect their local servers and nodes to their own centralized computers (where their proprietary content may be stored) and to the Internet backbone facilities that, directly or indirectly, provide connections to all the websites on the public Internet. In addition to the use of DSL, cable, or other dedicated connections to an ISP, customers can access the ISPs' networks of interexchange facilities by dialing the local telephone number of the ISP's local node or servers. That local call, strictly speaking, is routed to the central office of the LEC that serves the ISP, where the call is switched onto a private line that leads to the ISP's local server (which generally consists of a modem bank and router). Regardless of where this local server is located, the ISP's local server is a packet switch that routes communications from the calling party to one or more centrally-located computers on the ISP's network or to one or more websites on the public Internet. The Court noted that in a "single session" with an ISP, "an end user customer may communicate with multiple destination points, either sequentially or simultaneously," and the Court accepted the Commission's prior finding that "'a substantial portion of Internet traffic involves accessing interstate or foreign websites.'" *Bell Atlantic*, 206 F.3d at 5.

Notably, during each session, the local exchange carrier facilities establish an open circuit between the end user customer and the ISP. Information travels over these local facilities as part of the communications between the end user and each of interstate or foreign

websites that the end user contacts. The local exchange facilities are thus essential links in a series of sequential or simultaneous interstate, end-to-end communications, each of which occurs between the end users and interstate destinations. While the end user is obtaining an information service, the local exchange carriers are providing pure transmission for an interstate communication.

In these circumstances, there is no question that the ISPs' services, and the LECs' carriage of ISP-bound traffic, are jurisdictionally interstate services. The Act gives the FCC jurisdiction over "interstate or foreign communication by wire or radio" (47 U.S.C. § 201(a)), and "wire communications" is defined as "transmission of writing, signs, signals, pictures, and sounds of all kinds by aid of wire, cable, or other like connection between *points of origin and reception* of such transmission, including the instrumentalities, facilities, apparatus, and *services (among other things, the receipt, forwarding and delivery of communications) incidental to such transmission*." 47 U.S.C. § 153(52) (emphasis added). Under the plain terms of this definition, the existence of an ISP server or other intermediate points of switching and exchange – *i.e.*, "the receipt, forwarding, and delivery of communications incidental to such transmission" – does *not* serve to divide the call into separate communications. The courts and the Commission have thus uniformly held that in determining whether a call is intrastate or interstate in nature, one must examine the endpoints of the communication and ignore any intermediate points of switching or exchanges. *See, e.g., New York Tel. Co.* v. *FCC*, 631 F.2d 1059, 1066 (2d Cir. 1980); *United States* v. *AT&T*, 57 F. Supp. 451, 453-55 (S.D.N.Y. 1944), *aff'd*, 325 U.S. 837 (1945).

The Commission and the federal courts of appeals have similarly long held that the provision of enhanced or information services across state lines constitutes interstate communication by wire or radio and is within the FCC's jurisdiction. *See, e.g., Amendment of*

Section 64.702 of the Commission's Rules and Regulations, 77 F.C.C.2d 384 (1980) ("*Computer II*"), *aff'd*, *Computer and Communications Industry Ass'n* v. *FCC*, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983). Because ISPs are providers of enhanced or information services, the services of ISPs are unquestionably jurisdictionally interstate services. *See, e.g., MTS and WATS Market Structure*, 97 FCC Rcd. 682, 711, 715 (1983), *aff'd*, *NARUC* v. *FCC*, 737 F.2d 1095, 1136-37 (D.C. Cir. 1984); *Petition for Emergency Relief and Declaratory Ruling Filed by the BellSouth Corp.*, 7 FCC Rcd. 1619, 1620-21 (1992) ("*BellSouth MemoryCall*"); *GTE ADSL Tariff Order*, 13 FCC Rcd. 22466, 22474-79 (1998). As with traditional telecommunications traffic, the fact that there may be intermediate points of switching or exchange is irrelevant to the analysis. *BellSouth MemoryCall*, 7 FCC Rcd. at 1621. For example, in analyzing the jurisdictional status of a voicemail service that could be accessed from out of state, the Commission held that "the language of the Act also contradicts the narrow reading of our jurisdiction urged by the states that would artificially terminate our jurisdiction at the local switch and ignore the 'forwarding and delivery of [the] communications' to the 'instrumentalities, facilities, apparatus and services' that comprise BellSouth's voice mail service." *Id.* As the Commission explained, "the communications from the out-of-state caller to the local telephone number and switch, its forwarding to the voice mail service by the local switch, and its receipt and interaction with BellSouth's voice mail service, fall within the explicit subject matter jurisdiction of this Commission." *Id.*

Similarly, because the originating LEC is providing exchange access for the interstate telecommunications components of these enhanced and information services, the LECs' carriage of ISP-bound traffic, too, is an interstate service. *See, e.g., New York Tel. Co.* v. *FCC*, 631 F.2d 1059, 1066 (2d Cir. 1980); *NARUC* v. *FCC*, 746 F.2d 1492, 1498 (D.C. Cir.

1984). In this regard, LEXIS and Westlaw are information services that use a similar architecture. Each has established local nodes that can be accessed by dialing 7 digit or 800 numbers, and once the end user reaches the local node, it can sequentially search databases that are stored in one or more regional or centrally-located computers that are located in other states. The services that LEXIS and Westlaw offer are provisioned much like Internet access (*cf. Bell Atlantic*, 206 F.3d at 6), these services, and the LECs' carriage of traffic to and from them, are interstate communications by wire or radio that are within the Commission's core interstate jurisdiction.

These same points are also established by the Commission's decision in *Teleconnect Co.* v. *Bell Telephone Co.*, 10 FCC Rcd. 1626 (1995), *aff'd* 116 F.3d 593 (D.C. Cir. 1997). *Teleconnect* held that intrastate calls placed to an interexchange carrier's calling card platform (using an 800 number) are jurisdictionally interstate because the caller can and typically does place interstate calls from the platform. Contrary to the suggestion in the D.C. Circuit's opinion (206 F.3d at 6), the service in *Teleconnect* no more "involved a single continuous communication" than do the ISP services at issue here. Once an end user reaches an interexchange carrier's calling card platform, he or she is free to make a series of calls to a number of recipients, just as an end user is free to obtain connections to multiple websites after it reaches an ISP's local server. Thus, while *Teleconnect* did not involve information services and reciprocal compensation, its jurisdictional holding is controlling, and there is no question that the Commission's prior determination of jurisdiction is correct.

II. ISP-BOUND TRAFFIC IS SUBJECT TO RECIPROCAL COMPENSATION UNDER BOTH THE TERMS OF THE ACT AND THE COMMISSION'S REGULATION.

As the D.C. Circuit squarely held, the fact that ISP-bound calls are jurisdictionally interstate does not address or resolve the question whether cost-based reciprocal compensation

obligations apply to these calls. Rather, a determination that the calls are within the interstate jurisdiction establishes only that ISP-bound traffic is to be regulated under federal standards and not state law. A finding of federal jurisdiction in no way establishes that this traffic can rationally be excluded from the *federal* reciprocal compensation requirements of § 251(b)(5) or subjected (as incumbent LECs urge) to the same system of inter-carrier compensation that governs LECs' carriage of ordinary long distance calls.

As the D.C. Circuit suggested, that result does not "make sense in terms of the statute or the Commission's regulations." *Bell Atlantic*, 206 F.3d at 3. Section 251(b)(5), by its terms, requires reciprocal compensation for the transport and termination of all "telecommunications," and ISP-bound traffic is assuredly telecommunications. To be sure, the FCC's current regulations purport to establish an exception to the statute's plain terms and to limit reciprocal compensation to the termination of "local" calls. However, the stated reason for this exception was to preserve the existing system of "access charges" in which interexchange carriers compensate the originating and terminating LECs for their services at rates that purportedly contribute to the maintenance of universal service. But despite the similarity in the ISP's use of local networks, ISP-bound traffic has never been subject to the system of access charges. Rather, although treated as "interstate" for jurisdictional purposes, ISP-bound traffic has always been treated as *"local" for purposes of payment of compensation to LECs.* Thus, the terms of the Act, the reasons for the Commission's existing regulation, and the uniform prior decisions of the Commission alike all mandate that § 251(b)(5) reciprocal compensation obligations apply to ISP-bound traffic.

A. The Statutory Terms Mandate Reciprocal Compensation For ISP-Bound Calls.

Section 251(b)(5) imposes on all LECs the "duty to establish reciprocal compensation arrangements for the transport and termination of *telecommunications*." "Telecommunications" is a defined term in the Act (47 U.S.C. § 153(43)), and it is undisputed that both DSL and dial-up ISP-bound traffic are "telecommunications." Under the terms of the statute, cost-based reciprocal compensation is therefore mandatory, regardless of whether ISP-bound traffic is classified as "local," "interexchange service," "exchange service," "exchange access services," "information access," or some other kind of traffic. Indeed, because the terms "exchange" and "exchange access" appear in other provisions of §§ 251(b) and (c) – and because the other of the foregoing terms appear elsewhere in the 1996 Act – it could scarcely be clearer that Congress' use of the term "telecommunications" in § 251(b)(5) was deliberate. Had Congress intended to limit reciprocal compensation to "local" calls or to "exchange services," Congress could and would have said so.

In its 1996 *Local Competition Order*, the Commission adopted a regulation that exempted all but "local" traffic from the reciprocal compensation obligation. The stated reasons for the rule were to preserve the existing system in which interexchange carriers paid LECs access charges for originating and for terminating long distance calls. In rejecting claims that Section 251(b)(5) entitled IXCs to receive reciprocal compensation for long-distance traffic, the Commission found that "[t]he Act preserves the legal distinctions between charges for transport and termination of local traffic and interstate and intrastate charges for terminating long-distance traffic." *Local Competition Order* ¶ 1033. It further concluded that access charges "were developed to address the situation in which three carriers – typically the originating LEC, the IXC, and the terminating LEC – collaborate to complete a long-distance call," whereas

reciprocal compensation was intended for the situation where two carriers collaborate to complete a local call. *Local Competition Order* ¶ 1034. In support of this interpretation, the Commission also expressed the concern that the Act's cost-based standards for transport and termination (§ 252(d)(2)(A)(i)) would undermine the support that access charges provide for universal service. *Id.* But the Act separately addresses that issue. As the Commission noted, § 251(g) required LECs to continue to provide access for interexchange services pursuant to rules that applied at the time of the enactment of the 1996 Act – until such time as superceding regulations are adopted. *Local Competition Order* ¶ 1034.[2] Thus, applying § 251(b)(5) as written would not threaten legacy access charge regulation.

The Commission's "local" limitation violates the unambiguous terms of § 251(b) and should therefore be vacated. *See AT&T* v. *FCC*, 978 F.2d 727 (D.C. Cir. 1992). Further, the regulation is premised on a distinction between local and long distance carriers that is rapidly being eliminated. As the Commission itself noted in the *Local Competition Order* (¶ 1033), the transport and termination of both local and long-distance traffic "involves the same network functions" and the rates for such services "[u]ltimately . . . should converge." Although § 251(g) permits the Commission to implement a transition from traditional access charges to the cost-based compensation required by § 251(b)(5) – and the Commission is effectuating an orderly transition in that direction, most recently in its order adopting the CALLS Plan – modifying its

[2] As the Commission recently held in its *Order on Remand* in the Advanced Services Docket, § 251(g) is merely a transitional provision that incorporates pre-Act terms by necessity, but which does not indicate a Congressional intent to preserve forever the pre-Act access charge mechanisms. *Order on Remand*, In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket Nos. 98-147, 98-11, 98-26, 98-32, 98-78, 98-91, FCC 99-413, 15 FCC Rcd. 385 (1999), ¶ 37. In other words, § 251(g) reflects Congress' understanding that a flash-cut to a reciprocal compensation regime for access charges on the date of enactment would have been too disruptive to the industry. Section 251(g) thus permits the

reciprocal compensation rules to encompass ISP-bound traffic will in no way undermine that transition, inasmuch as ISPs have never paid traditional access charges.

B. ISP-Bound Traffic Has Been Treated As Local Under The *Local Competition Order* And The Commission's Uniform Prior Decisions.

ISP-bound traffic has, in any event, always been treated as "local" for analogous purposes under the Commission's prior decisions and the terms of the *Local Competition Order*. The simple reality is that, even if valid, the reasons that led the Commission to exclude traditional interexchange traffic from the scope of § 251(b)(5) do not apply in the context of ISP-bound traffic. The Commission has *never* required information service providers to pay access charges; they have always been exempted from paying such charges. In short, notwithstanding the fact that ISP-bound traffic is jurisdictionally interstate, for regulatory purposes the Commission has always *treated* that traffic as local, and the Commission has yet to offer a justification for not similarly treating that traffic as local for purposes of reciprocal compensation. *See Declaratory Ruling* ¶ 5 ("the Commission continues to discharge its interstate regulatory obligations by treating ISP-bound traffic as though it were local"); *Southwestern Bell Tel. Co.* v. *FCC*, 153 F.3d 523, 541-44 (8th Cir. 1998) (upholding retention of ESP exemption).

Indeed, by the Commission's own admission, the FCC has never prescribed a federal rule for compensation of ISP-bound traffic. *Declaratory Ruling* ¶¶ 1, 9. Therefore, even if § 251(g) can be read as a provision temporarily grandfathering traditional access charges, there is no pre-existing rule of compensation for ISP-bound traffic that falls within that grandfathering clause, and thus § 251(b)(5) should apply with full force to ISP-bound traffic.

Commission to effectuate a transition from the current access charge regime to the reciprocal compensation regime mandated by § 251(b)(5) for all "telecommunications."

Largely because of the ESP exemption, ISP-bound traffic has the characteristics that the Commission found in the *Local Competition Order* make reciprocal compensation arrangements feasible, as opposed to traditional interexchange access. For example, reciprocal compensation in the ISP-traffic context typically involves two LECs handing off traffic within a single exchange. Similar to the situation involving concededly "local" calls, as the Commission characterized it, the end-user "pays charges to the originating carrier, and the originating carrier must compensate the terminating carrier for completing the call." *Local Competition Order* ¶ 1034. It is also highly relevant that ISPs obtain service out of the same intrastate business tariffs used by other local businesses and that incumbent LECs rate calls to ISPs as local calls. *See Declaratory Ruling* ¶ 5; *Southwestern Bell*, 153 F.3d at 542. Moreover, "incumbent LEC expenses and revenue associated with ISP-bound traffic traditionally have been characterized as intrastate for separations purposes." *Declaratory Ruling* ¶ 5. And, the terms of § 251(d)(2)(A)(i) fit easily in the context of ISP traffic. In contrast to interexchange traffic, cost-based reciprocal compensation arrangements are appropriate between LECs and CLECs for the "recovery by each carrier of costs associated with transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier." § 252(d)(2)(A)(i); *see Local Competition Order* ¶ 1034.

Because the ESP exemption results in the treatment of ISP-bound traffic as local, the vast majority of state commissions – both before and after the *Declaratory Ruling* – have ruled that LECs owe cost-based reciprocal compensation for such traffic, just as they do for other local calls. Indeed, in the year since the *Declaratory Ruling*, at least thirteen states have ordered reciprocal compensation for such traffic, consistent with the Commission's rules establishing that

ISP-bound traffic is to be regulated as if it were a local call rather than as traditional interstate access.[3]

Treatment of ISP-bound traffic as local for purposes of tariffing, ratesetting and separations but not for purposes of reciprocal compensation would introduce an arbitrary and potentially crippling anomaly into the Commission's current ESP exemption regime. As most states have held, treatment of such traffic as local necessitates compensation arrangements when two LECs collaborate to complete the call, just as is true for other local calls; any contrary ruling would undermine the ESP exemption and the underlying policy of "foster[ing] and preserv[ing] the dynamic market for Internet-related services." *Declaratory Ruling* ¶ 6. The Commission should therefore recognize that ISP-bound traffic *is* local for purposes of § 251(b)(5)'s cost-based reciprocal compensation obligations.

III. IF THE COMMISSION DETERMINES THAT ISP-BOUND TRAFFIC IS BEYOND THE SCOPE OF § 251(B)(5), IT SHOULD ADOPT A NEW NATIONAL RULE THAT REQUIRES RECIPROCAL COMPENSATION FOR THAT TRAFFIC AT THE SAME COST-BASED RATES THAT CARRIERS AND STATE COMMISSIONS ESTABLISH FOR "LOCAL" VOICE AND DATA TRAFFIC.

If the Commission nonetheless concludes that § 251(b)(5) does not apply to ISP-bound traffic, it should immediately adopt a new federal rule, pursuant to its § 201/202 authority, that mandates reciprocal compensation for ISP-bound traffic at the same cost-based rates established by state commissions for the voice and data traffic that is concededly subject to

[3] *See, e.g.*, Arbitration Award, *Proceeding to Examine Reciprocal Compensation Pursuant to Section 252 of the Federal Telecommunications Act of 1996*, Docket No. 21982 (Pub. Util. Comm'n of Texas) (July 2000); Order Directing Reciprocal Compensation Rate, *Proceeding on Motion of the Commission to Examine Reciprocal Compensation: Filing of Cablevision Lightpath, Inc., to Rebut the Presumption That a Substantial Portion of Terminated Traffic is Subject to Compensation at End-Office Rate*, Case 99-C-0529 (N.Y. Pub. Serv. Comm.) (December 9, 1999). The other eleven states are Alabama, California, Florida, Georgia, Illinois, Kentucky, North Carolina, Nevada, Oregon, Pennsylvania, and Tennessee.

§ 251(b)(5). As AT&T and others have previously shown, and as no commenter has refuted, the relevant costs of delivering ISP-bound traffic are the same as the costs for delivering any other local traffic.

A. There Is No Economically Rational Or Lawful Basis For Distinguishing Between Local Voice And Data Traffic And ISP-Bound Traffic In Determining Reciprocal Compensation Obligations.

As the record in the *Declaratory Ruling* proceeding demonstrated, a LEC incurs real and significant costs in delivering traffic to an ISP, and there accordingly must be some mechanism that compensates the carrier delivering such traffic when traffic exchanged between the originating and delivering carrier is not roughly in balance. It is thus beyond reasonable debate that inter-carrier compensation should extend to ISP-bound traffic, and, absent demonstrated and categorical delivery cost differences between ISP-bound and local traffic, that carriers should apply the same pro-competitive compensation arrangements to both types of traffic – as carriers have, in fact, done for years under both negotiated and arbitrated arrangements and with the blessing of state commissions and the courts.

No such cost differences have been demonstrated, and there is simply no economic justification for subjecting voice and data traffic to different compensation rules. Consistent with its conclusions in the *Local Competition Order*, the Commission should require that inter-carrier compensation rates for ISP-bound traffic be based on the "cost" that "LECs incur . . . when delivering traffic to an ISP that originates on another LEC's network." *NPRM* ¶ 29. Indeed, only a methodology that focuses on the costs of delivery will produce the "efficient" rates that the Commission has set as a goal. *NPRM* ¶ 29 (concluding that "efficient rates" must "reflect accurately how costs are incurred for delivering ISP-bound traffic"). Incumbent LECs still have never shown, and cannot show, that the costs of transporting and

terminating data traffic differ categorically from the costs of transporting and terminating ordinary voice traffic. *See* AT&T Reply Comments at 5.

Carriers, including CLECs, utilize the same equipment and facilities to terminate ISP-bound traffic as they do for conventional voice traffic bound for other business users with large volumes of inbound traffic. *See* Declaration of Lee Selwyn and Patricia Kravtin ("*Selwyn/Kravtin*") ¶¶ 22-27; and *see id.* ¶ 24 ("routing a call from an originating end-user to an ISP's incoming modem line is technically identical to routing a call from the same end-user to any local telephone number served by the incumbent or other LEC") (attached hereto). The Commission itself correctly recognized that such calls are carried "(1) by the originating LEC from the end user to the point of interconnection (POI) with the LEC serving the ISP; [and] (2) by the LEC serving the ISP from the LEC-LEC POI to the ISP's local server" over the CLEC's transport, switching, and termination equipment and facilities. *NPRM* ¶ 7. Voice traffic delivered to large business end users such as credit card-issuing banks, travel agents, and PBX users are typically terminated in precisely the same way, and utilizing precisely the same types of equipment.[4] Because the costs associated with terminating ISP-bound traffic are therefore substantially identical to the costs associated with terminating other voice and data traffic to such customers, the incumbent LECs' arguments for different compensation rates are baseless and should be rejected. *See Selwyn/Kravtin* ¶¶ 24-27 (showing that the same sequence of events occurs in the network whether the call is a voice call, data call, or call to an ISP).

Moreover, as AT&T and others showed in response to last year's *NPRM*, any compensation scheme that required carriers separately to identify, measure, and bill for ISP-

[4] *Cf. Local Competition Order* ¶ 1033 ("We recognize that transport and termination of traffic, whether it originates locally or from a distant exchange, involves the same network functions"

bound traffic would be unjustifiably costly and time-consuming. Neither the incumbent LECs' nor the CLECs' switches or other equipment have been designed to distinguish between circuit-switched "data" traffic and circuit-switched "voice" traffic. From the perspective of a carrier's equipment, data and voice traffic handled by conventional circuit-switched networks are indistinguishable. Moreover, neither ILECs nor CLECs generally impose usage restrictions on their customers that would enable them to assure that certain numbers are used only for certain types of traffic. For these reasons, requiring carriers to settle ISP-bound traffic at different rates than voice traffic would impose needless and substantial development and deployment costs on terminating carriers.

The incumbent LECs' more recent claims that CLECs' costs of terminating ISP-bound traffic are lower because of the supposed longer duration of such calls relative to the average voice call are also meritless. *See* Taylor, Ross, Banerjee (NERA), "An Economic and Policy Analysis of Efficient Intercarrier Compensation Mechanisms for ISP-Bound Traffic," November 12, 1999 ("NERA Report"). Specifically, the NERA Report ignores the fact that CLEC networks typically consist of relatively more transport and relatively less switching than is true of ILEC networks. *See Selwyn/Kravtin* ¶¶ 38-42. Thus, while the cost of call setup may be higher than the incremental per-minute cost of the call in an ILEC network (and there is evidence that this is so), the reverse is typically true in the CLEC network. As a result, the incumbent LECs cannot show that call duration would significantly affect the total per-minute cost of delivering a call in the typical CLEC network. *See id.* ¶¶ 28-35.

Similarly, the incumbent LECs have failed to prove their contention that CLEC costs are lower because of traffic load characteristics, because they again ignore important

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and that therefore "the rates that local carriers impose for the transport and termination of local

network differences. The incumbent LECs assert (without support) that less of the overall volume of ISP traffic occurs during the incumbents' traditional busy hour (when the incremental cost of call is higher), and from that premise hypothesize that CLECs would experience lower busy-hour demand and thus lower costs for serving the same volume of traffic under a more sharply-peaking traffic load profile. As Selwyn and Kravtin show, however, the opposite is in fact true. For the CLECs, whose traffic may consist of a higher proportion of ISP-bound traffic, the ISP-bound call will have a higher likelihood of being carried at peak times and will carry a *higher* incremental cost per minute on average than voice traffic carried on the ILECs' network. *Selwyn/Kravtin* ¶¶ 32-35.[5] Moreover, as Selwyn and Kravtin show, because of differences in the architecture and scale economies of incumbent LEC and CLEC networks, CLECs may actually have *higher* terminating costs on average than ILECs. *Selwyn/Kravtin* ¶¶ 38-41.

Even more baseless are the incumbents' claims that a different compensation scheme is justified based on their own allegedly higher costs of *originating* ISP-bound traffic.

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traffic and for the transport and termination of long distance traffic should converge").

[5] As AT&T also showed, the incumbents' earlier attempts to demonstrate that carriers incur different costs *delivering* ISP and voice traffic are also baseless because they depend on the assumption that CLECs are providing exclusively or predominantly terminating service to ISP customers, rather than a mix of voice and data traffic. *See, e.g.*, Affidavit of Lawrence J. Chu at ¶¶ 4-5 *Complaint of WorldCom Technologies, Inc. against New England Tel. & Tel. Co.*, No. 97-116-B (Mass. Dep't. of Telecomm. & Energy, Mar. 29, 1999) (stating only that "CLECs that terminate *virtually all* traffic as ISP-bound calls . . . do not require the normal complement of line and trunk modules that are used in LEC or CLEC networks to provide dial tone and ringing to end users that make and receive calls" (emphasis added), and that broad-based CLECs "typically . . . equip their switches with the same end user software that is resident in ILEC switches"). Even if the incumbents could substantiate their assertion of cost differences with respect to niche entrants who have focused their marketing efforts exclusively on ISPs, it would plainly be improper for the Commission to base its general rule on the exceptional case. As the Commission held in the *Declaratory Ruling*, "the state commissions are capable of assessing whether and to what extent these and other anomalous practices are inconsistent with the statutory scheme (*e.g.*, definition of a carrier) and thereby outside the scope of any determination regarding inter-carrier compensation." *Declaratory Ruling* ¶ 24 & n.78.

See, e.g., U S WEST's Opening Comments at 17, *Investigation of Internet Serve Providers Traffic*, No. C-1960//PJ-25 (Neb. PSC, Mar. 15, 1999) (suggesting that the flat rates ILECs typically charge end users are inadequate because the ISP-bound calls originated by the incumbents' end users allegedly have higher than average holding times). Such concerns are simply irrelevant. The only relevant factor in determining rates that adequately compensate a carrier for the use of its facilities in transporting and terminating traffic is the cost that the *terminating* carrier incurs in delivering the ISP-bound traffic. *Selwyn/Kravtin* ¶ 17 (whether incumbents are being adequately compensated for *origination* of ISP-bound calls "is plainly not relevant to the question of whether CLECs are being overcompensated for the *termination* of such traffic"). If a LEC believes that its retail rates are improperly structured to reflect its costs of originating calls, the LEC should seek permission to modify those rates.[6]

Similarly, the Commission's observation that "efficient rates for inter-carrier compensation for ISP-bound traffic are not likely to be based entirely on minute-of-use pricing structures," and that "flat-rated pricing based on capacity may be more cost-based" for at least some components of service also provides no reason to allow disparate treatment of ISP-bound traffic. In the *Local Competition Order*, the Commission recognized that "economic efficiency may generally be maximized when non-traffic sensitive services, such as the use of dedicated facilities for the transport of traffic, are priced on a flat-rated basis." *Local Competition Order* ¶ 1063. Consistent with those findings, the Commission's existing reciprocal compensation pricing rules generally require that the rate structures adopted by the state commissions reflect

[6] *See Selwyn/Kravtin* ¶ 18. Although the incumbents repeatedly complain that their end user rates are set too low to recover costs for customers with above-average internet usage, the ILECs simply ignore that where states have established uniform flat rates for local exchange service, those rates are necessarily based on the costs of serving a customer with *average* cost

the manner in which costs are incurred. *See* 47 C.F.R. § 51.709. These rules are sufficiently flexible to allow state commissions to require alternative pricing structures if they determine that such structures are appropriate, but there is no basis for singling out ISP-bound traffic for special treatment.

In short, as AT&T amply demonstrated and as no commenter has refuted, there is no rational economic basis for subjecting voice and data traffic to different compensation regimes. The Commission should order that ISP-bound traffic be settled on the same basis as other voice and data traffic.

B. The Commission Should Adopt A Simple National Rule That Requires Compensation For ISP-Bound Traffic At The Same Cost-Based Rates That States Establish For "Local" Voice And Data Traffic.

The Commission's existing reciprocal compensation rules authorize state commissions to "impose bill-and-keep arrangements" if the amount of traffic flowing in one direction "is roughly balanced" with the amount of traffic flowing in the opposite direction, "and is expected to remain so." 47 C.F.R. §§ 51.705(a), 51.713(b). Where traffic is not "roughly balanced," the Commission's rules require states to establish rates on the basis of "the forward-looking economic costs" of delivering the traffic. *See* 47 C.F.R. § 51.705(a)(1). Because "[s]ymmetrical compensation rates are [] administratively easier to derive and manage than asymmetrical rates based on the costs of each of the respective carriers," the Commission's rules require "reciprocal compensation" to "be based on the incumbent local exchange carrier's cost studies," unless the competitive local exchange carrier demonstrates that its costs of termination justify imposing *higher* rates than those charged by the incumbent. *See Local Competition Order* §§ 1088-89 (emphasis added); 47 C.F.R. § 51.711(b) (state commission may establish

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characteristics. By definition, an average rate will undercompensate carriers for service to above-cost customers, and overcompensate carriers for lower-cost customers.

asymmetrical rates "only if" the entrant's costs are proven to be higher than the incumbent's costs). Finally, the Commission's rules require that rate structures reflect "the manner that carriers incur those costs." 47 C.F.R. § 51.709. Because there is no relevant functional difference between ISP-bound traffic and traffic that is concededly within the scope of § 251(b)(5) and thus subject to these rules, the appropriate federal rule is to mandate these same compensation obligations for ISP-bound traffic.

As AT&T explained last year (Reply Comments at 14), there is a simple and straightforward way to accomplish that result in the event the Commission determines that ISP-bound traffic is not already within the scope of § 251(b)(5). Specifically, the Commission should adopt the following rule:

> The rates, terms, and conditions for the transport and termination of ISP-bound traffic between any two carriers in a state shall be the rates, terms, and conditions established or approved by the state commission in such state (or the parties through negotiation) for the transport and termination of local traffic between the two carriers pursuant to Sections 251 and 252 of the Act.

Such a rule would significantly reduce the transaction and litigation costs of entry, enhance the ability of carriers to adopt region-wide or national entry strategies, and facilitate entry by providing carriers and financial markets with greater outcome predictability.

This rule would have the added benefit of avoiding wasteful federal proceedings that are duplicative of state commission § 252 proceedings, while at the same time imposing no additional obligations on the states (that ILECs would undoubtedly, as they did in the D.C. Circuit, argue are beyond the states' § 252 jurisdiction). Indeed, there would be no additional work for *any* regulator – enforcement proceedings at the Commission presumably would arise only in the extraordinary case in which an incumbent LEC refused to pay compensation despite an unambiguous Commission rule requiring payment. By contrast, if the Commission were to

conduct separate proceedings limited to ISP-bound traffic, the carriers (and the Commission) would needlessly be forced to expand significant resources to pursue a parallel track of arbitrations and appeals for each state. A duplicative set of arbitrations could only increase the transaction and litigation costs of entry and the risk of inconsistent outcomes, and thus undermine the Commission's goal of introducing local competition as quickly as possible.

Finally, the Commission should clarify that any rule changes adopted in this proceeding will have no retroactive effect on existing interconnection agreements and arbitrated decisions concerning reciprocal compensation arrangements. As the Commission has previously acknowledged, in the absence of a federal rule governing compensation for such traffic, the states "had no choice but to establish an inter-carrier compensation mechanism." *Declaratory Ruling* ¶ 26. Moreover, the Commission expressly found that nothing in the Act, the Commission's rules, or in the 1999 *Declaratory Order* "precludes the state commissions from determining . . . that reciprocal compensation is an appropriate interim inter-carrier compensation rule pending completion of the rulemaking we initiate below." *Id.* ¶ 27. Consistent with these findings, and the findings of a majority of state commissions since the *Declaratory Order*, the Commission should unambiguously confirm the lawfulness of prior agreements and state decisions on reciprocal compensation.

CONCLUSION

For the foregoing reasons, the Commission should require cost-based reciprocal compensation for ISP-bound traffic on a uniform basis with other voice and data traffic.

Respectfully submitted,

Mark C. Rosenblum
Stephen C. Garavito
Teresa Marrero
AT&T CORP.
295 North Maple Avenue
Basking Ridge, NJ 07920
(908) 221-8100

David W. Carpenter
David L. Lawson
James P. Young
SIDLEY & AUSTIN
1722 Eye Street
Washington, D.C. 20006
(202) 736-8677

Counsel for AT&T Corp.

July 21, 2000

CERTIFICATE OF SERVICE

I hereby certify that on this 21st day of July, 2000, I caused true and correct copies of the foregoing Comments of AT&T Corp. to be served on all parties by mailing, postage prepaid to their addresses listed on the attached service list.

Dated: July 21, 2000
Washington, D.C.

Peter M. Andros

SERVICE LIST

Magalie R. Salas
Office of the Secretary
Federal Communications Commission
445 12th Street, SW
TW-A325
Washington, D.C. 20554

Chairman William E. Kennard
Federal Communications Commission
445 12th Street, SW
Room 8B-201
Washington, D.C. 20554

Commissioner Gloria Tristani
Federal Communications Commission
445 12th Street, SW
Room 8C-302
Washington, D.C. 20554

Commissioner Susan Ness
Federal Communications Commission
445 12th Street, SW
Room 8B-115
Washington, D.C. 20554

Commissioner Michael Powell
Federal Communications Commission
445 12th Street, SW
Room 8A-204
Washington, D.C. 20554

Commissioner Harold Furchtgott-Roth
Federal Communications Commission
445 12th Street, SW
Room 8A-302
Washington, D.C. 20554

ITS
1231 20th Street, NW
Washington, D.C. 20037

Florida PSC Docket No. 000075-TP
AT&T Response to Staff RFI 5-b (Attachment)
Table 1

Calculation of Potential Impact on Internet Users
of Application of BellSouth's Switched Access Charges
to ISP-bound calls: Using BellSouth FCC Tariff No. 1 (Interstate Switched Access)

Average monthly connect time of Internet user, hours		25
Average duration of Internet calls, minutes		30
Total minutes per month:		1500
BellSouth-Florida's Interstate SWAC:		
Source: BellSouth Tariff FCC No. 1		
Local Switching LS2 (Feature Groups C and D):		
Per access minute	$	0.002244
Common trunk port service, per trunk per access minute	$	0.000800
Tandem switching, per access minute:	$	0.001177
Interconnection charge, per access minute: (Tariff indicates a zero rate)	$	-
Tandem switched transport, per access minute:		
Facilities Termination (fixed charge) per access minute of use:	$	0.000176
Per Mile per access minute of use:	$	0.000023
Assumed transport mileage		50
Total monthly charges if SWAC applied to ISP-bound traffic terminated by CLEC:		
LS2 and common trunk charges	$	4.57
Interconnection charge	$	-
Tandem switching charges	$	1.77
Tandem transport charges	$	1.99
Total monthly charges:	$	8.32
Note: This assumes that call is handed off to a CLEC for termination, so it includes (only) originating local switching, trunk port, transport and tandem switching elements.		

ATTACHMENT 3

EXHIBIT NO. _____

DOCKET NO: 000075-TP

WITNESS: Stip - 18

PARTY: e.spire Communications, Inc.

DESCRIPTION:

1. e.spire's responses to staff's First Set of Interrogatories and First set of Requests for Production of Documents.

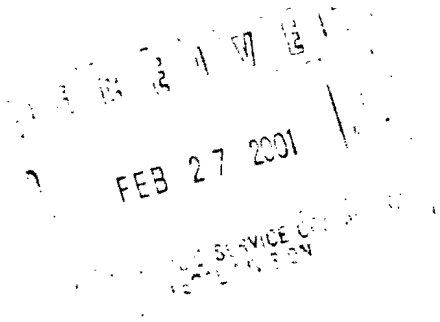
PROFFERING PARTY: STAFF

I.D. # Stip-18

LAW OFFICES
MESSER, CAPARELLO & SELF
A PROFESSIONAL ASSOCIATION

215 SOUTH MONROE STREET, SUITE 701
POST OFFICE BOX 1876
TALLAHASSEE, FLORIDA 32302-1876
TELEPHONE: (850) 222-0720
TELECOPIER: (850) 224-4359
INTERNET: www.lawfla.com

February 27, 2001



BY HAND DELIVERY
Ms. Blanca Bayó, Director
Division of Records and Reporting
Room 110, Easley Building
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, Florida 32399-0850

Re: FPSC Docket No. 000075-TP

Dear Ms. Bayó:

Enclosed for filing on behalf e.spire Communications, Inc. are an original and one copy of e.spire's Notice of Serving its Responses to FPSC Staff's First Set of Interrogatories and First Request for Production of Documents in the above-referenced docket.

Please acknowledge receipt of these documents by stamping the extra copy of this letter "filed" and returning the same to me.

Thank you for your assistance with this filing.

Sincerely,

Norman H. Horton, Jr.

NHH/amb
Enclosure
cc: James C. Falvey, Esq.
Parties of Record

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into Appropriate Method to Compensate Carriers for Exchange Traffic Subject to Sec. 251 of the Telecommunications Act	)	Docket No. 000075-TP

e.spire COMMUNICATIONS, INC.'S NOTICE OF SERVING ITS RESPONSES TO FPSC STAFF'S FIRST SET OF INTERROGATORIES AND FIRST REQUEST FOR PRODUCTION OF DOCUMENTS

e.spire Communications, Inc. by and through its undersigned counsel, hereby files and serves Notice that it has served its responses to FPSC Staff's First Set of Interrogatories and First Request for Production of Documents by hand delivery on Felicia Banks, Esq., Division of Legal Services, Florida Public Service Commission, 2540 Shumard Oak Blvd., Tallahassee, FL, 32399-0850 on this 27th day of February, 2001.

Respectfully submitted,

NORMAN N. HORTON, JR.
FLOYD R. SELF
Messer, Caparello & Self, P.A.
P. O. Box 1876
Tallahassee, FL 32302-1876
(850) 222-0720

Attorneys for e.spire Communications, Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of e.spire Communications, Inc.'s Notice of Service of its Responses to FPSC Staff's First Set of Interrogatories and First Request for Production of Documents in Docket 000075-TP has been served on the following parties by Hand Delivery (*) and/or U. S. Mail this 26th day of February, 2001.

Felicia Banks, Esq.*
Division of Legal Services, Room 370
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Nancy B. White
c/o Nancy H. Sims
BellSouth Telecommunications, Inc.
150 South Monroe Street, Suite 400
Tallahassee, FL 32301

Marsha Rule, Esq.
AT&T
101 N. Monroe St., Suite 700
Tallahassee, FL 32301

Michael A. Gross
Vice President, Regulatory Affairs
& Regulatory Counsel
Florida Cable Telecommunications Assoc., Inc.
246 E. 6th Avenue
Tallahassee, FL 32301

Global NAPS, Inc.
10 Merrymount Road
Quincy, MA 02169

Kimberly Caswell
Verizon Select Services
P.O. Box 110, FLTC0007
Tampa, FL 33601-0110

Genevieve Morelli
Kelley Drye & Warren
1200 19th Street, NW, Fifth Floor
Washington, DC 20036

Donna McNulty, Esq.
WorldCom
The Atrium Building, Suite 105
325 John Knox Road
Tallahassee, FL 32303

Mr. Brian Sulmonetti
WorldCom, Inc.
6 Concourse Parkway, Suite 3200
Atlanta, GA 30328

Laura Gallagher, Esq.
101 E. College Avenue, Suite 302
Tallahassee, FL 32301

Jon Moyle
Cathy Sellers
Moyle Law Firm
118 North Gadsden Street
Tallahassee, FL 32301

Peter M. Dunbar, Esq.
Pennington, Moore, Wilkinson, Bell &
Dunbar, P.A.
P.O. Box 10095
Tallahassee, FL 32302-2095

Kenneth A. Hoffman, Esq.
John R. Ellis, Esq.
Rutledge, Ecenia, Purnell & Hoffman, P.A.
P.O. Box 551
Tallahassee, FL 32302

Elizabeth Howland, Esq.
Attn: Regulatory and Interconnection
Allegiance Telecom, Inc.
1950 Stemmons Freeway, Suite 3026
Dallas, TX 75207

Morton Posner, Esq.
Regulatory Counsel
Allegiance Telecom
1150 Connecticut Avenue, N.W., Suite 205
Washington, DC 20036

Charles J. Rehwinkel
Susan Masterton
F. Ben Poag
Sprint-Florida, Incorporated
MC FLTHO0107
P.O. Box 2214
Tallahassee, FL 32399-2214

Mark Buechele
Supra Telecom
1311 Executive Center Drive, Suite 200
Tallahassee, FL 32301

Carolyn Marek
Vice President of Regulatory Affairs
Southeast Region
Time Warner Communications
233 Bramerton Court
Franklin, TN 37069

Ms. Wanda Montano
US LEC of Florida, Inc.
401 North Tryon Street, Suite 1000
Charlotte, NC 28202

Mr. Scott Sapperstein
Intermedia Communications, Inc.
M.C. FLT-HQ3
Tampa, FL 33647-1752

Mr. Herb Bornack
Orlando Telephone Company
4558 SW 35th Street, Suite 100
Orlando, FL 32811

Paul Rubey
Focal Communications Corporation
200 N. LaSalle Street, Suite 1100
Chicago, IL 60601-1914

Vicki Kaufman, Esq.
Joe McGlothlin, Esq.
McWhirter, Reeves, McGlothlin,
Davidson, Rief & Bakas, P.A.
117 S. Gadsden Street
Tallahassee, FL. 32301

Robert Scheffel Wright
Landers & Parsons, P.A.
P.O. Box 271
Tallahassee, FL 32302

Charles A. Hudak
Ronald V. Jackson
Gerry, Friend, and Sapronov, LLP
Three Ravinia Drive, Suite 1450
Atlanta, GA 30346-2131

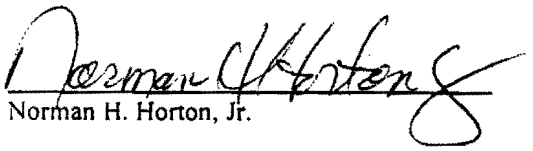
Michael R. Romano, Esq.
Level 3 Communications, LLC
1025 Eldorado Blvd.
Broomfield, CO 80021

Mr. Woody Traylor
BroadBand Office Communications, Inc.
2900 Telestar Court
Falls Church, VA 22042-1206

Ms. Jill Butler
Cox Communications
4585 Village Avenue
Norfolk, VA 23502-2035

Patrick Wiggins
Charles Pellegrini
Katz, Kutter Law Firm
10 East College Avenue, 12th Floor
Tallahassee, FL 32301

Mr. John McLaughlin
KMC Telecom, Inc.
1755 North Brown Road
Lawrenceville, GA 33096



Norman H. Horton, Jr.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into Appropriate Method to Compensate Carriers for Exchange Traffic Subject to Sec. 251 of the Telecommunications Act	)))))	Docket No. 000075-TP

e.spire's RESPONSES TO FPSC STAFF'S FIRST SET OF INTERROGATORIES

COMES NOW, e.spire Communications, Inc. (e.spire) and in response to FPSC Staff's First Set of Interrogatories (Nos. 1 - 12) states as follows:

Responses provided by James Falvey, e.spire Communications, Inc., 131 National Business Parkway, Suite 100, Annapolis Junction, Maryland, 20701.

1. Please refer to the direct testimony of BellSouth witness David P. Scollard, page 5, beginning at line 13. Witness Scollard contends that ALECs should be required to provide BellSouth with ISP telephone numbers.

(a) Does e.spire know which numbers it serves are ISP numbers?

RESPONSE: No, e.spire does not know which numbers is serves are ISP numbers.

(b) If the response to (a) is negative, how would e.spire obtain such information, if the Commission were to require it?

RESPONSE: e.spire would have to conduct a survey of its customers in order to determine which numbers it serves are ISP numbers. Even if e.spire were to conduct a survey to obtain this information, e.spire customers may very well consider this information as confidential, proprietary, and part of the customer's business plan. Furthermore, due to the large number of customers to which e.spire provides service, it would

place an undue burden on e.spire to conduct an internal survey of its customers to identify the ISP numbers.

2. Please refer to the rebuttal testimony of BellSouth witness William Taylor, page 24, beginning at line 23, where he states ALECs build switches to service ISPs at a concentration ration of 1:1. Do you agree or disagree with this statement? Please explain your answer.

RESPONSE: In general, I agree with this statement. This concentration ratio can be the case with both ISP and non-ISP customers.

3. Please refer to the rebuttal testimony of BellSouth witness William Taylor, page 51, beginning at line 9, where he states that ALECs possibly send a share of the reciprocal compensation revenues they receive to the ISPs.

(a) Does e.spire share its reciprocal compensation revenues with ISPs?

RESPONSE: No, e.spire does not share its reciprocal compensation revenues with ISPs.

(b) Does e.spire charge a lower rate to an ISP for a service than it charges to other non-ISP customers for comparable services?

RESPONSE: No, e.spire does not charge a lower rate to ISPs for a service than it charges to other non-ISP customers for comparable services. e.spire provides ISPs with volume and term contracts on the same terms and conditions as other non-ISP customers. Indeed, e.spire believes that it would be discriminatory to make volume and term contracts available to one class of customers or market segment that are similarly situated and not another for comparable local services.

4. In the direct testimony of James C. Falvey, page 7, line 1, he states that "The equipment used is the same on both the originating and terminating sides, and the costs of

originating and terminating the calls are the same." Other witnesses contend that ALECs handle traffic using methods that are lower cost than methods used by ILECs.

(a) Does e.spire use methods other than circuit switched technology to handle traffic.

RESPONSE: No, e.spire does not use methods other than circuit switched technology to handle dial-up local traffic.

(b) If the response to (a) is affirmative, what percentage of traffic is handled by methods other than circuit switched technology?

RESPONSE: This question is not applicable. See e.spire's response to question 4 a.

(c) Are such methods used specifically for Internet traffic, or is all traffic carried by such means:?

RESPONSE: This question is not applicable. See e.spire's response to question 4 a.

(d) How do the costs of such technologies compare to the cost of circuit switching?

RESPONSE: This question is not applicable. See e.spire's response to question 4 a.

5. In the direct testimony of James C. Falvey, page 10, line 7, he contends that the elimination of reciprocal compensation for ISP traffic "is likely to distort an increasingly competitive local exchange market."

(a) How will the competitive local exchange market be distorted?

RESPONSE: If ALECs are unable to recover the costs associated with delivering traffic to ISPs from the ILEC of the cost-causing end user, we will have to recover from non-cost-causers. This creates distortions, including higher prices for other non-cost-causing local customers.

(b) Please give specific examples of such distortions.

RESPONSE: If the rates for reciprocal compensation are insufficient for ALECs to recover the costs of transporting and terminating local calls, ALECS will be incented to alter their business plans. For example, the incentive may be created for ALECs to capture the customer base such as telemarketing firms that would generate traffic from the ALECs to ILECs, thereby requiring ILECs to carry high volumes of local traffic at below cost.

6. In the direct testimony of James C. Falvey, page 11, line 11, he states that any compensation mechanism should be symmetrical. What cost evidence do you have that shows that the costs of ILECs and ALECs for termination of traffic are symmetrical?

RESPONSE: I have not presented any cost evidence to show that the costs of ILECs and ALECs for the termination of traffic are symmetrical. The Federal Communications Commission's reciprocal compensation rules state that, except under certain circumstances, rates for transport and termination of local telecommunications traffic shall be symmetrical. See Section 51.711 of the Commission's rules, 47 C.F.R. 51.711. My direct testimony is based on this provision of the rule.

I recognize that Section 51.711(b) provides that a state commission may establish asymmetrical rates for transport and termination of local traffic, if the carrier other than the incumbent LEC or the smaller of the two incumbent LECs proves to the state commission that its costs exceed the costs incurred by the incumbent LEC or the larger incumbent LEC. It is my understanding that no ALEC is claiming higher costs than the ILEC, which must be proven to obtain asymmetrical rates.

7. In the direct testimony of James c. Falvey, page 12, beginning at line 1, he states that "To the degree that ISP-bound traffic includes non-circuit-switched technologies, such as voice-over-IP, the costs incurred by competitive carriers for delivering traffic directed toward the Internet backbone are the same as those for traffic transported over circuit-switched technologies." What cost evidence do you have to support this statement?

RESPONSE: Many voice-over-IP calls originate and terminate through dial-up, circuit switched networks. The fact that a dial-up local call is transferred into Internet protocal by an ISP does not affect the cost of the circuit-switched, dial-up portion of the call.

8. In the direct testimony of James C. Falvey, page 13, beginning at line 17, he states that "the separation of ISP-bound traffic for reciprocal compensation payments is likely to lead to a reduction of compensation for this class of traffic, and therefore will result in the failure to encourage efficient communications networks." If more efficient networks are lower cost networks, why would e.spire be disinclined to seek the most efficient network possible, regardless of whether it received reciprocal compensation payments?

RESPONSE: Equal treatment of ISP-bound and non-ISP-bound traffic creates operating efficiencies for both ILEC and ALECs. To the extent that a separate compensation scheme for ISP-bound and non ISP-bound traffic is developed, the operating efficiencies and economic incentives that currently exist will be frustrated; an artificial distinction between each type of traffic is being made, while the underlying costs of carrying each type of traffic are the same.

9. In the direct testimony of James c. Falvey, page 14, beginning at line 6, he states that "the Commission should establish a default compensation mechanism."

(a) Should the Commission establish default rates in conjunction with such a mechanism?

RESPONSE: Yes. As stated on page 15 of my direct testimony, "default" rates should be equal to the ILEC transport and termination rates, as required by the Federal Communication's rules.

(b) If the response to (a) is affirmative, how would the Commission account for differences in costs from carrier to carrier, in establishing those rates?

RESPONSE: The Federal Communications Commission's rules preclude references to the costs of any carrier other than the ILEC, when, as is the case in this proceeding, no ALEC claims to have higher costs than the ILEC.

10. In the rebuttal testimony of James C. Falvey, page 19, beginning at line 9, he states that "the presumption under the FCC's rules is that competitive carriers are entitled to symmetrical compensation." Please provide the specific cite where the FCC has made this statement.

RESPONSE: See answer to question 6.

11. In the rebuttal testimony of James C. Falvey, page 22, beginning at line 9, he states that "a blended switch rate can satisfactorily account for the differences in call durations if it takes into account all relevant data concerning the way calls are presently made."

(a) In order to implement such a rate, does e.spire believe it is appropriate to establish a different rate for each carrier, based on the mix of traffic it handles, and the characteristics of that traffic?

RESPONSE: No, as noted in my response to question 9(b), the Federal Communications Commission's rules preclude analysis of non-ILEC costs.

(b) If the response to (a) is affirmative, how would e.spire develop such a rate?

RESPONSE: N/A.

(c) If the response to (a) is negative, how would e.spire suggest that the Commission ensure that each carrier receives sufficient cost recovery to cover its actual expenditures for termination of traffic?

RESPONSE: The Commission could create a benchmark rate and permit carriers to obtain a higher rate in the event that the benchmark rate is insufficient to recover the carriers actual expenditures for termination of traffic.

12. If the FCC issues an order that is permissive with regard to any mechanism it prescribes for ISP traffic compensation, that is, an order which allows states to determine how termination of ISP traffic should be compensated, what action do you believe this Commission should take?

RESPONSE: Under current Federal Communications Commission's rules, drafted to avoid unnecessary, expensive, and duplicative cost analyses, the Commission is precluded ~~from~~ ALEC cost analysis on a carrier-by-carrier basis.

Respectfully submitted this 27th day of February, 2001.

Norman H. Horton, Jr.
Messer, Caparello & Self, P.A.
215 S. Monroe Street, Suite 701
P.O. Box 1876
Tallahassee, FL 32302-1876
(850) 222-0720

Attorneys for e.spire Communications, Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of e.spire Communications, Inc.'s Responses to FPSC Staff's First Set of Interrogatories in Docket 000075-TP has been served on the following parties by Hand Delivery (*) and/or U. S. Mail this 27th day of February, 2001.

Felicia Banks, Esq.*
Division of Legal Services, Room 370
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Nancy B. White
c/o Nancy H. Sims
BellSouth Telecommunications, Inc.
150 South Monroe Street, Suite 400
Tallahassee, FL 32301

Marsha Rule, Esq.
AT&T
101 N. Monroe St., Suite 700
Tallahassee, FL 32301

Michael A. Gross
Vice President, Regulatory Affairs
& Regulatory Counsel
Florida Cable Telecommunications Assoc., Inc.
246 E. 6th Avenue
Tallahassee, FL 32301

Global NAPS, Inc.
10 Merrymount Road
Quincy, MA 02169

Kimberly Caswell
Verizon Select Services
P.O. Box 110, FLTC0007
Tampa, FL 33601-0110

Genevieve Morelli
Kelley Drye & Warren
1200 19th Street, NW, Fifth Floor
Washington, DC 20036

Donna McNulty, Esq.
WorldCom
The Atrium Building, Suite 105
325 John Knox Road
Tallahassee, FL 32303

Mr. Brian Sulmonetti
WorldCom, Inc.
6 Concourse Parkway, Suite 3200
Atlanta, GA 30328

Laura Gallagher, Esq.
101 E. College Avenue, Suite 302
Tallahassee, FL 32301

Jon Moyle
Cathy Sellers
Moyle Law Firm
118 North Gadsden Street
Tallahassee, FL 32301

Peter M. Dunbar, Esq.
Pennington, Moore, Wilkinson, Bell &
Dunbar, P.A.
P.O. Box 10095
Tallahassee, FL 32302-2095

Kenneth A. Hoffman, Esq.
John R. Ellis, Esq.
Rutledge, Ecenia, Purnell & Hoffman, P.A.
P.O. Box 551
Tallahassee, FL 32302

Elizabeth Howland, Esq.
Attn: Regulatory and Interconnection
Allegiance Telecom, Inc.
1950 Stemmons Freeway, Suite 3026
Dallas, TX 75207

Morton Posner, Esq.
Regulatory Counsel
Allegiance Telecom
1150 Connecticut Avenue, N.W., Suite 205
Washington, DC 20036

Charles J. Rehwinkel
Susan Masterton
F. Ben Poag
Sprint-Florida, Incorporated
MC FLTHO0107
P.O. Box 2214
Tallahassee, FL 32399-2214

Mark Buechele
Supra Telecom
1311 Executive Center Drive, Suite 200
Tallahassee, FL 32301

Carolyn Marek
Vice President of Regulatory Affairs
Southeast Region
Time Warner Communications
233 Bramerton Court
Franklin, TN 37069

Ms. Wanda Montano
US LEC of Florida, Inc.
401 North Tryon Street, Suite 1000
Charlotte, NC 28202

Mr. Scott Sapperstein
Intermedia Communications, Inc.
M.C. FLT-HQ3
Tampa, FL 33647-1752

Mr. Herb Bornack
Orlando Telephone Company
4558 SW 35th Street, Suite 100
Orlando, FL 32811

Paul Rubey
Focal Communications Corporation
200 N. LaSalle Street, Suite 1100
Chicago, IL 60601-1914

Vicki Kaufman, Esq.
Joe McGlothlin, Esq.
McWhirter, Reeves, McGlothlin,
Davidson, Rief & Bakas, P.A.
117 S. Gadsden Street
Tallahassee, FL. 32301

Robert Scheffel Wright
Landers & Parsons, P.A.
P.O. Box 271
Tallahassee, FL 32302

Charles A. Hudak
Ronald V. Jackson
Gerry, Friend, and Sapronov, LLP
Three Ravinia Drive, Suite 1450
Atlanta, GA 30346-2131

Michael R. Romano, Esq.
Level 3 Communications, LLC
1025 Eldorado Blvd.
Broomfield, CO 80021

Mr. Woody Traylor
BroadBand Office Communications, Inc.
2900 Telestar Court
Falls Church, VA 22042-1206

Ms. Jill Butler
Cox Communications
4585 Village Avenue
Norfolk, VA 23502-2035

Patrick Wiggins
Charles Pellegrini
Katz, Kutter Law Firm
10 East College Avenue, 12th Floor
Tallahassee, FL 32301

Mr. John McLaughlin
KMC Telecom, Inc.
1755 North Brown Road
Lawrenceville, GA 33096

Norman H. Horton, Jr.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into Appropriate Method to Compensate Carriers for Exchange Traffic Subject to Sec. 251 of the Telecommunications Act	)	Docket No. 000075-TP

e.spire's RESPONSES TO FPSC STAFF'S
FIRST REQUEST FOR PRODUCTION OF DOCUMENTS

COMES NOW, e.spire Communications, Inc. (e.spire) and in response to FPSC Staff's First Request for Production of Documents (Nos. 1 - 3) states as follows:

1. Please provide any and all documents in your possession or under your control referred to in your response to Staff Interrogatory 6.

RESPONSE: e.spire has no documents in response to this request.

2. Please provide any and all documents in your possession or under your control referred to in your response to Staff Interrogatory 7.

RESPONSE: e.spire has no documents in response to this request.

3. Please provide a copy of any and all reports, other than those produced by the FCC, that are referred to in the testimony of e.spire's witness Falvey, to the extent they have not been provided in the testimony or exhibits.

RESPONSE: e.spire has no documents in response to this request.

Respectfully submitted this 27th day of February, 2001.

Norman H. Horton, Jr.
Messer, Caparello & Self, P.A.
215 S. Monroe Street, Suite 701
P.O. Box 1876
Tallahassee, FL 32302-1876
(850) 222-0720

Attorneys for e.spire Communications, Inc.

CERTIFICATE OF SERVICE

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Felicia Banks, Esq.*
Division of Legal Services, Room 370
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Nancy B. White
c/o Nancy H. Sims
BellSouth Telecommunications, Inc.
150 South Monroe Street, Suite 400
Tallahassee, FL 32301

Marsha Rule, Esq.
AT&T
101 N. Monroe St., Suite 700
Tallahassee, FL 32301

Michael A. Gross
Vice President, Regulatory Affairs
& Regulatory Counsel
Florida Cable Telecommunications Assoc., Inc.
246 E. 6th Avenue
Tallahassee, FL 32301

Global NAPS, Inc.
10 Merrymount Road
Quincy, MA 02169

Kimberly Caswell
Verizon Select Services
P.O. Box 110, FLTC0007
Tampa, FL 33601-0110

Genevieve Morelli
Kelley Drye & Warren
1200 19th Street, NW, Fifth Floor
Washington, DC 20036

Donna McNulty, Esq.
WorldCom
The Atrium Building, Suite 105
325 John Knox Road
Tallahassee, FL 32303

Mr. Brian Sulmonetti
WorldCom, Inc.
6 Concourse Parkway, Suite 3200
Atlanta, GA 30328

Laura Gallagher, Esq.
101 E. College Avenue, Suite 302
Tallahassee, FL 32301

Jon Moyle
Cathy Sellers
Moyle Law Firm
118 North Gadsden Street
Tallahassee, FL 32301

Peter M. Dunbar, Esq.
Pennington, Moore, Wilkinson, Bell &
Dunbar, P.A.
P.O. Box 10095
Tallahassee, FL 32302-2095

Kenneth A. Hoffman, Esq.
John R. Ellis, Esq.
Rutledge, Ecenia, Purnell & Hoffman, P.A.
P.O. Box 551
Tallahassee, FL 32302

Elizabeth Howland, Esq.
Attn: Regulatory and Interconnection
Allegiance Telecom, Inc.
1950 Stemmons Freeway, Suite 3026
Dallas, TX 75207

Morton Posner, Esq.
Regulatory Counsel
Allegiance Telecom
1150 Connecticut Avenue, N.W., Suite 205
Washington, DC 20036

Charles J. Rehwinkel
Susan Masterton
F. Ben Poag
Sprint-Florida, Incorporated
MC FLTHO0107
P.O. Box 2214
Tallahassee, FL 32399-2214

Mark Buechele
Supra Telecom
1311 Executive Center Drive, Suite 200
Tallahassee, FL 32301

Carolyn Marek
Vice President of Regulatory Affairs
Southeast Region
Time Warner Communications
233 Bramerton Court
Franklin, TN 37069

Ms. Wanda Montano
US LEC of Florida, Inc.
401 North Tryon Street, Suite 1000
Charlotte, NC 28202

Mr. Scott Sapperstein
Intermedia Communications, Inc.
M.C. FLT-HQ3
Tampa, FL 33647-1752

Mr. Herb Bornack
Orlando Telephone Company
4558 SW 35th Street, Suite 100
Orlando, FL 32811

Paul Rubey
Focal Communications Corporation
200 N. LaSalle Street, Suite 1100
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Vicki Kaufman, Esq.
Joe McGlothlin, Esq.
McWhirter, Reeves, McGlothlin,
Davidson, Rief & Bakas, P.A.
117 S. Gadsden Street
Tallahassee, FL. 32301

Robert Scheffel Wright
Landers & Parsons, P.A.
P.O. Box 271
Tallahassee, FL 32302

Charles A. Hudak
Ronald V. Jackson
Gerry, Friend, and Sapronov, LLP
Three Ravinia Drive, Suite 1450
Atlanta, GA 30346-2131

Michael R. Romano, Esq.
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Broomfield, CO 80021

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Patrick Wiggins
Charles Pellegrini
Katz, Kutter Law Firm
10 East College Avenue, 12th Floor
Tallahassee, FL 32301

Mr. John McLaughlin
KMC Telecom, Inc.
1755 North Brown Road
Lawrenceville, GA 33096

Norman H. Horton, Jr.

Statement of Qualifications

DR. LEE L. SELWYN

Dr. Lee L. Selwyn has been actively involved in the telecommunications field for more than twenty-five years, and is an internationally recognized authority on telecommunications regulation, economics and public policy. Dr. Selwyn founded the firm of Economics and Technology, Inc. in 1972, and has served as its President since that date. He received his Ph.D. degree from the Alfred P. Sloan School of Management at the Massachusetts Institute of Technology. He also holds a Master of Science degree in Industrial Management from MIT and a Bachelor of Arts degree with honors in Economics from Queens College of the City University of New York.

Dr. Selwyn has testified as an expert on rate design, service cost analysis, form of regulation, and other telecommunications policy issues in telecommunications regulatory proceedings before some forty state commissions, the Federal Communications Commission and the Canadian Radio-television and Telecommunications Commission, among others. He has appeared as a witness on behalf of commercial organizations, non-profit institutions, as well as local, state and federal government authorities responsible for telecommunications regulation and consumer advocacy.

He has served or is now serving as a consultant to numerous state utilities commissions including those in Arizona, Minnesota, Kansas, Kentucky, the District of Columbia, Connecticut, California, Delaware, Maine, Massachusetts, New Hampshire, Vermont, New Mexico, Wisconsin and Washington State, the Office of Telecommunications Policy (Executive Office of the President), the National Telecommunications and Information Administration, the Federal Communications Commission, the Canadian Radio-television and Telecommunications Commission, the United Kingdom Office of Telecommunications, and the Secretaria de Comunicaciones y Transportes of the Republic of Mexico. He has also served as an advisor on telecommunications regulatory matters to the International Communications Association and the Ad Hoc Telecommunications Users Committee, as well as to a number of major corporate telecommunications users, information services providers, paging and cellular carriers, and specialized access services carriers.

Dr. Selwyn has presented testimony as an invited witness before the U.S. House of Representatives Subcommittee on Telecommunications, Consumer

Protection and Finance and before the U.S. Senate Judiciary Committee, on subjects dealing with restructuring and deregulation of portions of the telecommunications industry.

In 1970, he was awarded a Post-Doctoral Research Grant in Public Utility Economics under a program sponsored by the American Telephone and Telegraph Company, to conduct research on the economic effects of telephone rate structures upon the computer time sharing industry. This work was conducted at Harvard University's Program on Technology and Society, where he was appointed as a Research Associate. Dr. Selwyn was also a member of the faculty at the College of Business Administration at Boston University from 1968 until 1973, where he taught courses in economics, finance and management information systems.

Dr. Selwyn has published numerous papers and articles in professional and trade journals on the subject of telecommunications service regulation, cost methodology, rate design and pricing policy. These have included:

"Taxes, Corporate Financial Policy and Return to Investors"
National Tax Journal, Vol. XX, No.4, December 1967.

"Pricing Telephone Terminal Equipment Under Competition"
Public Utilities Fortnightly, December 8, 1977.

"Deregulation, Competition, and Regulatory Responsibility in the Telecommunications Industry"
Presented at the 1979 Rate Symposium on Problems of Regulated Industries — Sponsored by: The American University, Foster Associates, Inc., Missouri Public Service Commission, University of Missouri-Columbia, Kansas City, MO, February 11 — 14, 1979.

"Sifting Out the Economic Costs of Terminal Equipment Services"
Telephone Engineer and Management, October 15, 1979.

"Usage-Sensitive Pricing" (with G. F. Borton)
(a three part series)
Telephony, January 7, 28, February 11, 1980.

"Perspectives on Usage-Sensitive Pricing"
Public Utilities Fortnightly, May 7, 1981.

"Diversification, Deregulation, and Increased Uncertainty in the Public Utility Industries"
Comments Presented at the Thirteenth Annual Conference of the Institute of Public Utilities, Williamsburg, VA — December 14 — 16, 1981.

"Local Telephone Pricing: Is There a Better Way?; The Costs of LMS Exceed its Benefits: a Report on Recent U.S. Experience."
Proceedings of a conference held at Montreal, Quebec — Sponsored by Canadian Radio-Television and Telecommunications Commission and The Centre for the Study of Regulated Industries, McGill University, May 2 — 4, 1984.

"Long-Run Regulation of AT&T: A Key Element of A Competitive Telecommunications Policy"
Telematics, August 1984.

"Is Equal Access an Adequate Justification for Removing Restrictions on BOC Diversification?"
Presented at the Institute of Public Utilities Eighteenth Annual Conference, Williamsburg, VA — December 8 — 10, 1986.

"Market Power and Competition Under an Equal Access Environment"
Presented at the Sixteenth Annual Conference, "Impact of Deregulation and Market Forces on Public Utilities: The Future Role of Regulation" Institute of Public Utilities, Michigan State University, Williamsburg, VA — December 3 — 5, 1987.

"Contestable Markets: Theory vs. Fact"
Presented at the Conference on Current Issues in Telephone Regulations: Dominance and Cost Allocation in Interexchange Markets — Center for Legal and Regulatory Studies Department of Management Science and Information Systems — Graduate School of Business, University of Texas at Austin, October 5, 1987.

"The Sources and Exercise of Market Power in the Market for Interexchange Telecommunications Services"
Presented at the Nineteenth Annual Conference — "Alternatives to Traditional Regulation: Options for Reform" — Institute of Public Utilities, Michigan State University, Williamsburg, VA, December, 1987.

"Assessing Market Power and Competition in The Telecommunications Industry: Toward an Empirical Foundation for Regulatory Reform" *Federal Communications Law Journal*, Vol. 40 Num. 2, April 1988.

"A Perspective on Price Caps as a Substitute for Traditional Revenue Requirements Regulation"
Presented at the Twentieth Annual Conference — "New Regulatory Concepts, Issues and Controversies" — Institute of Public Utilities, Michigan State University, Williamsburg, VA, December, 1988.

"The Sustainability of Competition in Light of New Technologies" (with D. N. Townsend and P. D. Kravtin)
Presented at the Twentieth Annual Conference — Institute of Public Utilities Michigan State University, Williamsburg, VA, December, 1988.

"Adapting Telecom Regulation to Industry Change: Promoting Development Without Compromising Ratepayer Protection" (with S. C. Lundquist)
IEEE Communications Magazine, January, 1989.

"The Role of Cost Based Pricing of Telecommunications Services in the Age of Technology and Competition"
Presented at National Regulatory Research Institute Conference, Seattle, July 20, 1990.

"A Public Good/Private Good Framework for Identifying POTS Objectives for the Public Switched Network" (with Patricia D. Kravtin and Paul S. Keller)
Columbus, Ohio: *National Regulatory Research Institute*, September 1991.

"Telecommunications Regulation and Infrastructure Development: Alternative Models for the Public/Private Partnership"
Prepared for the Economic Symposium of the International Telecommunications Union Europe Telecom '92 Conference, Budapest, Hungary, October 15, 1992.

"Efficient Infrastructure Development and the Local Telephone Company's Role in Competitive Industry Environment" *Presented at the Twenty-Fourth Annual Conference, Institute of Public Utilities, Graduate School of Business, Michigan State University, "Shifting*

Boundaries between Regulation and Competition in Telecommunications and Energy", Williamsburg, VA, December 1992.

"Measurement of Telecommunications Productivity: Methods, Applications and Limitations" (with Françoise M. Clottes) *Presented at Organisation for Economic Cooperation and Development, Working Party on Telecommunication and Information Services Policies, '93 Conference "Defining Performance Indicators for Competitive Telecommunications Markets", Paris, France,* February 8-9, 1993.

"Telecommunications Investment and Economic Development: Achieving efficiency and balance among competing public policy and stakeholder interests" *Presented at the 105th Annual Convention and Regulatory Symposium, National Association of Regulatory Utility Commissioners, New York,* November 18, 1993.

"The Potential for Competition in the Market for Local Telephone Services" (with David N. Townsend and Paul S. Keller), presented at *Organization for Economic Cooperation and Development Workshop on Telecommunication Infrastructure Competition*, December 6-7, 1993.

"Market Failure in Open Telecommunications Networks: Defining the new natural monopoly," *Utilities Policy*, Vol. 4, No. 1, January 1994.

"The Enduring Local Bottleneck: Monopoly Power and the Local Exchange Carriers," (with Susan M. Gately, et al) report prepared by ETI and Hatfield Associates, Inc. for AT&T, MCI and CompTel, February 1994.

"Commercially Feasible Resale of Local Telecommunications Services: An Essential Step in the Transition to Effective Local Competition," (Susan M. Gately, et al) a report prepared by ETI for AT&T, July 1995.

"Efficient Public Investment in Telecommunications Infrastructure" *Land Economics*, Vol 71, No.3, August 1995.

"Market Failure in Open Telecommunications Networks: Defining the new natural monopoly," in *Networks, Infrastructure, and the New Task for Regulation*, by Werner Sichel and Donal L. Alexander, eds., University of Michigan Press, 1996.

Dr. Selwyn has been an invited speaker at numerous seminars and conferences on telecommunications regulation and policy, including meetings and workshops sponsored by the National Telecommunications and Information Administration, the National Association of Regulatory Utility Commissioners, the U.S. General Services Administration, the Institute of Public Utilities at Michigan State University, the National Regulatory Research Institute at Ohio State University, the Harvard University Program on Information Resources Policy, the Columbia University Institute for Tele-Information, the International Communications Association, the Tele-Communications Association, the Western Conference of Public Service Commissioners, at the New England, Mid-America, Southern and Western regional PUC/PSC conferences, as well as at numerous conferences and workshops sponsored by individual regulatory agencies.

Summary of BellSouth and Verizon's Basic Local Exchange Offerings in Florida

BellSouth

BellSouth's residence customers in Florida obtain local exchange service under the Company's tariffs for flat-rate or measured rate exchange service. BellSouth's Individual Line Flat-Rate Residence Service provides for an unlimited number of originated messages within the customer's defined local calling area for a flat monthly rate ranging from $7.30 to $10.65 depending upon the customer's Rate Group.[20] Alternatively, residence customers may choose BellSouth's Individual Line Message Rate Residence Service where, for monthly charge ranging from $6.77 to $8.40, the customer receives a monthly per-line message allowance of 30 outgoing local messages,[21] after which a $0.10 per-message charge applies.[22]

BellSouth's business customers may subscribe to Individual Line Flat-Rate Business Service, which provides for an unlimited number of local messages for a flat monthly rate ranging from $19.80 to $29.10 depending upon the customer's Rate Group.[23] BellSouth also offers Business Individual Line Message Rate Service, at rates ranging from $14.71 to $21.69, which provides a monthly message allowance of 75 local messages, after which the per-message charge is $0.12.[24]

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20. See BellSouth Telecommunications, Inc. Florida, General Subscriber Service Tariff Page 17 (revision 2), Effective: January 15, 2000.

21. BellSouth Telecommunications, Inc. Florida, General Subscriber Service Tariff Page 28 (revision 4), Effective: July 20, 2000.

22. BellSouth Telecommunications, Inc. Florida, General Subscriber Service Tariff Page 28 (revision 4), Effective: July 20, 2000.

23. See BellSouth Telecommunications, Inc. Florida, General Subscriber Service Tariff Page 17 (revision 2), Effective: January 15, 2000.

24. BellSouth Telecommunications, Inc. Florida, General Subscriber Service

(continued...)

In some communities, BellSouth's customers are offered the option of including one or more additional exchanges in their flat-rate local calling area by paying a fixed monthly "Enhanced Optional Extended Area Service" ("EOEAS") charge for each such exchange they wish to reach on a flat-rate basis[25]. The flat-rate EOEAS charge is based upon two factors — the distance between the customer's home exchange and the EOEAS exchange, and the number of exchange access lines in the EOEAS exchange. Calls placed to other nearby exchanges, including exchanges for which EOEAS is available but that are not selected by a customer for inclusion in his or her EOEAS flat-rate calling area, are provided under so-called "Extended Calling Service" ("ECS"). ECS provides usage based pricing for customer dialed or operator assisted calls to selected exchanges within the customer's LATA.[26] Customers are charged at a fixed per-message (per-call) amount of $0.25 for residential subscribers or $0.10 and $0.06 for the initial and subsequent minutes of each call, respectively, for calls originated by business customers.[27] (Calls placed to all other points within the same LATA are rated as intraLATA toll.)

Verizon

Although the specific rates differ, the structure of Verizon's Florida local exchange rates is generally comparable to that used by BellSouth. Verizon's residential customers can subscribe to Flat-Rate Service with monthly rates varying between $9.51 to $11.81 depending upon the customer's Rate Group.[28] Residential Message-Rate Service is offered at between $6.01 and $7.00 per

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24. (...continued)
Tariff, Page 29 (revision four), Effective: July 20, 2000..

25. BellSouth Telecommunications, Inc. Florida, General Subscriber Service Tariff, Page 36 (revision seven) Effective: January 15, 2000.

26. BellSouth Telecommunications, Inc. Florida, General Subscriber Service Tariff, Page 41 (revision one), Effective October 16, 1996.

27. BellSouth Telecommunications, Inc. Florida, General Subscriber Service Tariff, Page 42 (revision 1) Effective October 7, 1997.

28. GTE (Verizon) Florida Incorporated, General Services Tariff, Page 1 (revision fifteen), Effective: February 4, 2000.

month, plus local usage charges.[29] Verizon's residential Measured-Rate Service includes a $9.57 usage allowance each month, with additional local messages charge at $0.10 each.[30]

For business customers, Verizon offers Measured-Rate Service for individual lines or trunks at a monthly rate of $17.67, with no monthly calling allowance and an additional local message charge of $0.10.[31] In addition to the basic service, Verizon offers ECS to business and residence basic exchange customers in all exchange services. Residence customers are charged $0.25 per call, whereas Business customers are charged $.04 per call "connection" and $.06 for each minute.[32]

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29. GTE (Verizon) Florida Incorporated, General Services Tariff, Page 2 (revision ten), Effective: May 28, 1996.

30. GTE (Verizon) Florida Incorporated General Services Tariff, Page 2 (revision ten), Effective: May 28, 1996.

31. GTE (Verizon)Florida Incorporated General Services Tariff, Page 1.1 original, Effective: November 7, 1995.

32. GTE (Verizon) Florida Incorporated General Services Tariff, Page 19 (revision 3), Effective: March 26, 1999.

Docket No. 000075-TP
Exhibit __ (LLS-3)

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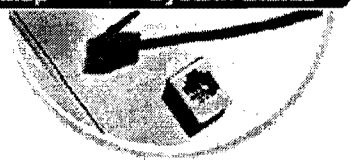

Dial Access Numbers

Find A Dial Access Number In Your Area

In order to confirm that a number is local to you, please refer to the front pages of your local telephone book where the area codes and first three digits within your calling area are listed. Also, check with your local telephone company to find out if there is an extended calling plan available in your area that will allow you to connect locally to a nearby Verizon Online access number.

Note: Be sure to check with your local phone company to make sure the numbers you choose are local, toll-free call from your area. Simply call the operator and ask whether the numbers are local or toll call.

Telephone Number	City	State	Access Type
(305)292-1123	Key West	FL	33.6K,ISDN,V.90
(305)351-0018	Miami	FL	33.6K,ISDN,V.90
(305)358-6951	Miami	FL	ISDN Only,,
(305)702-0000	Miami	FL	33.6K,V.90,
(321)268-8898	Titusville	FL	33.6K,ISDN,V.90
(321)723-1352	Melbourne	FL	33.6K,ISDN,V.90
(352)372-2840	Gainesville	FL	33.6K,ISDN,V.90
(352)683-1313	Weekiwachee Springs	FL	33.6K,ISDN,V.90
(352)690-1965	Ocala	FL	33.6K,ISDN,V.90
(407)245-2969	Orlando	FL	33.6K,ISDN,V.90
(407)847-0062	Kissimmee	FL	33.6K,ISDN,V.90
(561)219-3713	Stuart	FL	33.6K,ISDN,V.90
(561)237-0284	Boca Raton	FL	33.6K,ISDN,V.90
(561)462-0023	Fort Pierce	FL	33.6K,ISDN,V.90
(561)681-9557	West Palm Beach	FL	33.6K,ISDN,V.90
(561)794-1140	Vero Beach	FL	33.6K,ISDN,V.90

Docket No. 000075-TP
Exhibit ___ (LLS-3)

(727)465-9301	Clearwater	FL	33.6K,ISDN,V.90
(727)573-0863	Pinellas Park	FL	33.6K,V.90,
(727)827-0117	St Petersburg	FL	33.6K,ISDN,V.90
(727)841-0743	New Port Richey	FL	33.6K,ISDN,V.90
(813)247-7863	Tampa	FL	33.6K,ISDN,V.90
(813)277-9634	Tampa	FL	33.6K,ISDN,V.90
(813)775-2021	Tampa	FL	33.6K,ISDN,V.90
(813)788-0518	Zephyrhills	FL	33.6K,ISDN,V.90
(850)222-0763	Tallahassee	FL	33.6K,ISDN,V.90
(850)453-9550	Pensacola	FL	33.6K,ISDN,V.90
(850)872-1932	Panama City	FL	33.6K,ISDN,V.90
(850)969-9884	Pensacola	FL	33.6K,ISDN,V.90
(863)422-0113	Haines City	FL	33.6K,ISDN,V.90
(863)665-1506	Lakeland	FL	33.6K,ISDN,V.90
(863)679-9638	Winter Haven/Lake Wales	FL	33.6K,ISDN,V.90
(904)255-6221	Daytona Beach	FL	33.6K,ISDN,V.90
(904)312-0773	Palatka	FL	33.6K,ISDN,V.90
(904)350-6641	Jacksonville	FL	33.6K,ISDN,V.90
(904)445-8216	Palm Coast	FL	33.6K,ISDN,V.90
(904)491-0939	Fernandina Beach	FL	33.6K,ISDN,V.90
(904)752-6858	Lake City	FL	33.6K,ISDN,V.90
(904)808-7328	St Augustine	FL	33.6K,ISDN,V.90
(941)337-4228	Fort Myers	FL	33.6K,ISDN,V.90
(941)362-4985	Sarasota	FL	33.6K,ISDN,V.90
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(941)746-8563	Bradenton	FL	33.6K,ISDN,V.90
(941)948-8260	Bonita Springs	FL	33.6K,ISDN,V.90
(954)486-4806	Fort Lauderdale	FL	33.6K,ISDN,V.90

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Docket No. 00005-TP
Exhibit ___ (LLS-3)

BELLSOUTH

BellSouth Telecommunications, Inc.
333 Commerce Street
Suite 2101
Nashville, TN 37201-3300

guy.hicks@bellsouth.com

Guy M. Hicks
General Counsel

615 214-6301
Fax 615 214-7406

October 4, 2000

VIA HAND DELIVERY

David Waddell, Executive Secretary
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, TN 37238

Re: *Petition for Arbitration of the Interconnection Agreement Between BellSouth Telecommunications, Inc. and Intermedia Communications Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996*
Docket No. 99-00948

Dear Mr. Waddell:

During the hearing of the referenced matter last month, the Directors requested that BellSouth advise the TRA whether it is billing Intermedia reciprocal compensation for calls placed by Intermedia's customers to those BellSouth customers who subscribe to foreign exchange ("FX") service. BellSouth has completed its internal investigation and concluded that it is, in fact, billing Intermedia reciprocal compensation for such calls. If, after consideration of this issue in the arbitration, the TRA agrees with BellSouth that reciprocal compensation should not be billed by either carrier for these calls, then BellSouth will take the appropriate steps to cease billing Intermedia (and other CLECs) reciprocal compensation for such calls.

Very truly yours,

Guy M. Hicks

GMH:tmt

cc: Don Baltimore, Esquire

CERTIFICATE OF SERVICE

I hereby certify that on October 4, 2000, a copy of the foregoing document was served on the parties of record, via the method indicated:

[ ] Hand
[✓] Mail
[ ] Facsimile
[ ] Overnight

Carl Jackson, Senior Director
Intermedia Communications, Inc.
360 Interstate North Parkway, # 500
Atlanta, GA 30339

[ ] Hand
[✓] Mail
[ ] Facsimile
[ ] Overnight

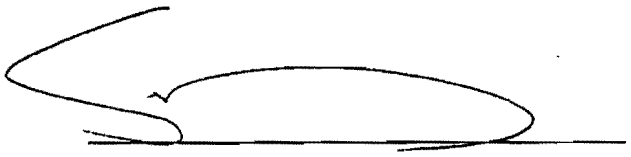
Scott Saperstein
Senior Policy Counsel
Intermedia Communications, Inc.
3625 Queen Palm Drive
Tampa, FL 33619

[ ] Hand
[✓] Mail
[ ] Facsimile
[ ] Overnight

H. LaDon Baltimore, Esquire
Farrar & Bates
211 Seventh Ave. N, # 320
Nashville, TN 37219-1823

[ ] Hand
[✓] Mail
[ ] Facsimile
[ ] Overnight

Enrico C. Soriano, Esquire
Kelley, Drye & Warren
1200 19th St., NW, #500
Washington, DC 20036



RESUME
May, 2000

EDWARD C. BEAUVAIS, III
925 Lakewood Drive
Southlake, Texas 76092

Office: (972) 718-5464 Fax: (972) 718-1239
Home: (817) 488-0707
e-mail: edward.beauvais@telops.gte.com

EDUCATION:

B.A. in Economics from Virginia Polytechnic Institute and State University (June, 1971)
Graduate study in Business and Finance - Virginia Commonwealth University
(July, 1971 - June, 1973)
M.A. in Economics from Virginia Polytechnic Institute and State University (May, 1975)
Ph.D. in Economics from Center for the Study of Public Choice, Virginia Polytechnic Institute and State University (May, 1977)

FIELDS:

Microeconomic Theory, Economics of Regulation,
Industrial Organization, Public Choice

CURRENT POSITION:
Director - Economic Policy
Regulatory & Governmental Affairs
GTE Service Corporation
Irving, TX 75038
(October, 1997 to Present)

PREVIOUS POSITION:
Chief Economist
Regulatory & Governmental Affairs
GTE Telephone Operations
Irving, TX 75038
(October, 1992 to June, 1997)

PREVIOUS POSITION:
Director - Pricing Policy
Product Management Department
GTE Service Corporation
Irving, TX 75015
(June, 1988 to January, 1992)

CURENT POSITION:
Visiting Adjunct Professor
School of Business
University of Kansas
Lawrence, KS 66045
(June, 1992 to June 1999)

PREVIOUS POSITION:
Director - Federal Regulatory Matters
Regulatory & Governmental Affairs
GTE Telephone Operations
Irving, TX 75038
(February, 1992 to October, 1992)

PREVIOUS POSITION:
Adjunct Professor
Dept. of Economics
University of Connecticut
Stamford, CT. 06903
(June, 1982 to Jan. 1989)

PREVIOUS POSITION:
Pricing & Economic Policy Manager
Regulatory Affairs Department
GTE Service Corporation
Stamford, CT. 06904
(June, 1981 - June, 1988)

PREVIOUS POSITION:
Senior Economic Analyst
Regulatory Economic Research
GTE Service Corporation
Stamford, CT. 06904
(January, 1978 - June, 1981)

PREVIOUS POSITION:
Senior Technical Analyst
Management Sciences Section
GTE Data Services, Inc.
Tampa, FL. 33601
(July, 1976 - January, 1978)

PREVIOUS POSITION:
Rate Economist
Dept. of Rates and Contracts
Virginia Electric & Power Co.
Richmond, VA. 23219
(June, 1971 - September,1973)

CURRENT RESEARCH:

Pricing and costing of evolving telecommunication networks and evaluation of welfare, allocative, and distributive effects of alternative pricing systems; Evaluation of alternative regulatory regimes for public utility services; Demand and cost analysis of telecommunications services; Experimental design of peak load pricing experiments; Evaluation of competition in telecommunications markets.

CONSULTING & TESTIMONY PREPARATION:

Virginia State Corporation Commission: design and development of forecasting methodologies for use by Commission in evaluating capital budgets of electric utilities in Virginia; (August, 1975 - June, 1976)

Testimony/Exhibits/Comments Prepared and Filed before:

Federal Power Commission (now FERC)
Federal Communications Commission
Virginia State Corporation Commission
North Carolina Utilities Commission
West Virginia Public Service Commission
Public Service Commission of Wisconsin
Public Utility Commission of Ohio
Hawaii Public Utilities Commission
Illinois Commerce Commission
California Public Utilities Commission
Kentucky Public Service Commission
South Carolina Public Service Commission
Georgia Public Service Commission
Florida Public Service Commission
Corporation Commission of Oklahoma
Indiana Utility Regulatory Commission
Michigan Public Service Commission
Iowa Utilities Board
Pennsylvania Public Utility Commission
Public Utility Commission of Texas
Public Utility Commission of Oregon
Washington Utilities and Transportation Commission

CONSULTING & TESTIMONY PREPARATION (continued):

Alabama Public Service Commission
New Mexico State Corporation Commission
Minnesota Public Service Commission
Public Utilities Commission of Nevada

Other Regulatory Appearances:

NARUC Technical Education Conference for Commissioners
New England Council of Public Utility Commissioners

Alabama Public Service Commission Telecommunications Conference
Virginia State Corporation Commission Annual Conference
Instructor - NARUC Annual Regulatory Studies Program; Michigan State University
South Carolina Public Service Commission Annual Conference
Current Policy Issues Forum for Commissioners, NARUC

Legislative Testimony:

Before the Indiana House Commerce Committee
Before the Illinois Senate Public Utilities Committee
Before the Florida House of Representatives
Before the Texas Senate Finance Committee
Before the Illinois House of Representatives
Before the Texas House Ways and Means Committee
Before the Virginia General Assembly

PRESENTATIONS and PUBLICATIONS:

"Econometric Estimation of Peak Electricity Demands", **Journal of Econometrics**, January, 1979 (with R.M. Spann);

"An Interventionist Theory of Public Utility Regulation", Paper presented to the Virginia Economic Association, March, 1976, Richmond, VA;

"Alternative Bidding Arrangements: A Study of Risk and Uncertainty in the Domestic Oil Industry", Paper presented to the Western Economic Association, June, 1976, San Francisco, CA. (with S. Millsaps);

"The Demand for Residential Telephone Services Under Non-Metered Tariffs: Implications for Alternative Pricing Policies", Paper presented to the Western Economic Association, June, 1977, Anaheim, CA;

"The Financial Effects of Local Measured Service on the Operating Telephone Company", Paper presented to the Telecommunication Industry Workshop, March, 1979, Kansas City, MO;

"Forecasting Peak Electricity Demands", Paper presented to the Electric Power Research Institute, April, 1977, Aspen, CO;

"The Supply of Private, Semi-Public, and Public Goods: Budget Size in a Democracy Revisited", **The Southern Economic Journal**, October, 1978, (with J.M. Fesmire)

PRESENTATIONS and PUBLICATIONS (continued):

"Econometric Estimation of Peak electricity Demands", Paper presented to the Southern Economic Association, November, 1977, New Orleans, LA. (with R.M. Spann); also appearing in **Forecasting and Modeling Time-of-Day and Seasonal Electricity Demands**, Electric Power Research Institute, December, 1977.

"The Demand for Electricity in Virginia", **The Review of Economics and Statistics**, November, 1978, (with R.M. Spann, M. Murray, and L. Pulley);

"An Evaluation of Potential Welfare Gains from Usage Pricing of Local Telephone Service", Paper presented to the Western Economic Association, June, 1978; Honolulu, HI.

"Review of Modern Political Economy", **The Southern Economic Journal**, January, 1980.

"The Financial Effects of Local Measured Service", in **Perspectives on Local Measured Service**, TIW, October, 1979;

"Usage Sensitive Pricing", **Proceedings of the 5th Annual Symposium on Rate making Problems of Regulated Industries**, May, 1979, (with G. Cohen);

"The Demand for Local Exchange Service: Some Implications for Planning", **Proceedings of the 3rd International Conference on Analysis, Forecasting, and Planning for Public Utilities**, June, 1980, Paris, France; (with G. Cohen);

"Local Loops as Barriers to Entry?", in **Challenges for Public Utility Regulation in the 1980s**; Michigan State University: December, 1980; also appearing in **Proceedings of Workshop on Telecommunication Issues**; Bureau of Utility Research, University of Connecticut: January, 1984; (with J. Alleman);

Universal Measured Service Policy Statement, GTE Service Corporation, March, 1980.

"No Main Is An Island", Paper presented to the Western Economic Association, July, 1981, San Francisco, CA. (with J. Alleman).

"Review of Peak Load Pricing: European Lessons for US Energy Policy", **The Southern Economic Journal**, July, 1981.

"Predicting Local Telephone Usage Under Measured Service", **Public Utilities Fortnightly**, August 5, 1982; (with G. Cohen and L. Garfinkel);

"The Economic Impact of Access Charges: Does Anyone's Ox Need to be Gored?", in **Adjusting to Regulatory, Pricing, and Marketing Realities**: Michigan State University, December, 1983, (with L. Cole);

"Metering Costs and Measured Service: An Evaluation of Efficiency Gains from Usage Sensitive Pricing of Telephone Service", Paper presented to the Institute of Public Utilities, December, 1983, Williamsburg, VA. Also in **Changing Patterns in Regulation, Markets, and Technology: The Impact on Public Utility Pricing**: Michigan State University, December, 1984.

PRESENTATIONS and PUBLICATIONS (continued):

"A Cost-Benefit Analysis of Alternative Local Service Pricing: Estimates From a US Telephone Company", in **Local Telephone Pricing: Is There a Better Way?**: Canadian Radio-Television & Telecommunications Commission and The Centre for the Study of Regulated Industries, McGill University, Third Quarter, 1984.

"An Overview of the Economic Impacts of Local Measured Service", Paper presented to the Kentucky Telephone Association, May, 1985, Lexington, KY;

"Exchange and Interexchange Rate Design", Presented to the NARUC Annual Regulatory Studies Program; Michigan State University, June, 1985.

"Cost Trends in Telecommunications", Presented to the Electronic Funds Transfer Association, June, 1985, New Orleans, LA;

Rational Pricing in a Competitive/Regulated Environment: Conceptual Statement of Rate Design and Public Policy, GTE Service Corporation, August, 1985.

Rational Pricing in a Competitive/Regulated Environment: Strategy Implementation Guidelines, GTE Service Corporation, December, 1985.

"Alternatives for Traffic Sensitive Cost Recovery", Paper presented to Bellcore Seminar on TS Costs; March, 1986, Seattle, WA;

"Implications of Cost Characteristics of New Technologies for the Pricing of Telecommunications Services", Presented to the University of Georgia Public Utilities Conference, September, 1986, Atlanta, GA;

"La tarification des telecommunications", in **Le Bulletin de l'Idate**, April, 1986; Geneva; (with J. Alleman, L. Cole, and N. Stolleman);

"The Competitive Pricing of Telecommunications Services: Does LMS Still Have a Place?", Paper presented to Conference on Local Measured Service, May, 1987, Washington, D.C.

"Rational Pricing of Telephone Services in the New Environment", Presented to the Georgia Telephone Association, June, 1987, Jekyll Island, GA.

"Funding Tomorrow's Electronic Highways; Who Should Pay the User Fees?: Trucks? - Nissans? - Ferraris?," Presented to Tennessee Tomorrow, Belmont College: Nashville, Tennessee, September 30, 1987; Tenessee Public Service Commission, Tennessee Telephone Association, Tennessee Department of Economic and Community Development, Tennessee Technology Foundation, Tennessee Valley Aerospace Board. Abstract published in **Tennessee Tomorrow: Building Electronic Highways for Economic Growth.**

"Of Taxis and Telecommunications," Invited paper presented to the First Annual Telecommunications Conference, August 16-17, 1988. Sponsored by the Alabama Public Service Commission, Birmingham, Alabama.

"Costing Strategies in a More Competitive Environment," Invited paper presented to the GTE North Regulatory & Legal Conference; August 23-24, 1988, Lake Geneva, Wisconsin.

PRESENTATIONS and PUBLICATIONS (continued):

"Regulatory Reform: A Vision of the Future From the Perspective of a Local Exchange Company," Presented to the Tennessee Telephone Association Annual Conference, September 9, 1988; Chattanooga, TN.

"Private Transmission Networks: The Evils of Bypass or Fulfilling Unsatisfied Customer Needs," Paper presented to the 4th Annual Conference on Telecommunications Regulation, January 22, 1989, University of Utah, Salt Lake City.

"LMS for ESPs Under ONA BY FCC with PUCs," Paper presented to the Southeastern Regional Public Utilities Conference, the University of Georgia, August 30, 1989, Atlanta, GA.

"The Parable of the Taxi," **OPASTCO Roundtable**, Fall, 1989 (with D. Johnson, and R. Calkins).

"Local Exchange Competition: Where Is Competition Taking Us? or Bottleneck? What Bottleneck," Paper presented to the Institute of Public Utilities, Michigan State University, December 11, 1991, Williamsburg, Virginia. Appearing in **Regulatory Responses to Continuously Changing Industry Structures**, Michigan State University. Also presented to the OPASTCO Annual Winter Convention & Workshops, January 21, 1992, Orlando, Florida.

"Local Transport Competition: Interconnection and Price Reform - Expanding the Scope," paper presented to the Center for Public Utilities, College of Business Administration and Economics, New Mexico State University, March 11, 1992, Santa Fe, New Mexico.

"Expanded Interconnection and Access Competition: A Holistic Approach to Products and Prices," paper presented to the 18th Annual Rate and Regulatory Symposium, The Changing Environment: Competition, Regulation and Incentives, April 27, 1992, St. Louis, Missouri.

"Regulation and Competition: Sweet Siblings or Evil Twins?," paper presented to the University of Kansas 1992 Fall Stakeholders Symposium on Telecommunications, November 17, 1992, Lawrence, Kansas.

"Some Preliminary Thoughts On Public Policy Implications of Personal Communication Services: Impacts On Support Mechanisms, Price Levels, and Rate Structures," appearing in **Washington Telecom Week**, December 4, 1992 (Volume 1, No. 36).

"On the Road to Divestiture II: New Organizational & Regulatory Structures for GTE," paper presented to GTE South Area Key Management Meeting: Challenging Times ... Challenging Issues, March 17, 1993, Tampa, Florida.

"Local Exchange Service: What Bottleneck?," **Teletimes** (Spring, 1993) pp 2 - 5, 17.

"The Good, The Bad, and The Ugly: Regulation and Competition," paper presented to the University of Kansas 1993 Advanced Tele-Management Program, May 26, 1993, Lawrence, Kansas.

"Public Policy for a Multiproduct Firm: Tearing Down the Berlin Wall in Telecommunications," **Utilities Policy** (November, 1993), (with Virginia Sheffield)

"Fiber To The Cow?? Fiber's Role In The Competitive Marketplace," paper presented to the 16th Annual Newport Conference on Fiberoptics Markets, October 19, 1993, Newport, Rhode Island.

PRESENTATIONS and PUBLICATIONS (continued):

"Regulation and Competition: Bet You Can't Have Just One," paper presented to the University of Kansas 1993 Fall Stakeholders Symposium on Telecommunications, November 18, 1993, Lawrence, Kansas.

"Competition and Rivalry in Telecommunications Markets: Definitional Issues," invited paper presented to NARUC Winter Meetings, February 24, 1994; Washington, D.C.

"Telecommunications Regulation Between Technological Dynamics and Public Policy Goals," paper presented to Current Policy Issues Forum - 19 West, Michigan State University, July 25, 1994, San Diego, California.

"On Market Share & Market Power in Telecom Markets," **New Telecom Quarterly** (Fourth Quarter, 1994) Volume 2, Number 4, pp. 48 - 52.

"Pricing for Competition: Markets, Politics, Economics & Public Policy," paper presented to TeleStrategies Conference, June 2, 1995, Washington, D.C.

"The Texas Telecommunications Three-Step," paper presented to the Texas Telephone Association Foundation Industry Symposium, April 30. 1996, San Antonio, Texas.

"Organizational Implications of the FCC Interconnection Order," paper presented to the Fourteenth Annual AUM Business Economics Forum, The New Competition in Telecommunications, November 7, 1996, Auburn University, Montgomery, AL.

"Preliminary Implications of the FCC Interconnection Order," **The Southern Business & Economic Journal**, April, 1997, Volume 20, Number 3, pp.156-175.

"Scale Economies in Cellular Telephony: Size Matters," **Journal of Regulatory Economics**, February, 1999, (with R. Dean Foreman).

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Federal Communications Commission
Office of Plans and Policy
445 12th Street, SW
Washington, DC 20554

OPP Working Paper Series

33 Bill and Keep at the Central Office As the Efficient Interconnection Regime

December 2000

Patrick DeGraba

Bill and Keep at the Central Office As the Efficient Interconnection Regime

Patrick DeGraba*
Deputy Chief Economist
Federal Communications Commission

Office of Plans and Policy
Federal Communications Commission
Washington, D.C. 20554
December 2000

OPP Working Paper No. 33

* An earlier version of this paper was presented at the 28th annual Telecommunications Policy Research Conference in Alexandria, VA on September 25, 2000. I wish to thank Jay Atkinson, Christopher Barnekov, Robert Cannon, Ben Childers, Dale Hatfield, Michael Kende, Johanna Mikes, Robert Pepper, Michael Riordan, William Rogerson, Gregory Rosston, William Sharkey, Howard Shelanski, Douglas Sicker, and Donald Stockdale for helpful comments. The views expressed in this paper are those of the author and do not necessarily represent the views of the Federal Communications Commission, any Commissioners, or other staff.

Table of Contents

Bill and Keep at the Central Office
As the Efficient Interconnection Regime

Executive Summary

This paper proposes a unified approach to interconnection pricing called Central Office Bill and Keep ("COBAK"), which applies to all types of carriers that interconnect with, and to all types of traffic that pass over, the local circuit-switched network. COBAK is a *default* interconnection regime, which means it would apply only when two networks cannot agree on terms for interconnection.

The COBAK proposal consists of two rules for local calls involving two networks. First, a called party's carrier cannot charge an interconnecting carrier to *terminate* a call. (Thus, each carrier recovers the cost of the loop and local switch from its own end-user customers). Second, the calling party's network is responsible for the cost of transporting a call between the calling party's central office and the called party's central office. These rules are easily extended to calls involving both local exchange and interexchange carriers.

COBAK will solve or ameliorate many of the significant problems that plague the existing interconnection regimes. First, COBAK eliminates various regulatory arbitrage opportunities that beset the current interconnection regime, including the current preferential treatment of Internet Protocol ("IP") telephony compared with traditional, long-distance service, and the "ISP reciprocal compensation" problem. Second, by eliminating termination charges, COBAK significantly reduces the "terminating access monopoly" problem, which gives even the smallest carrier monopoly power over calls that terminate with its customers. Third, by eliminating inefficiently structured interconnection charges, which carriers tend to flow through to end-user prices, COBAK is likely to result in more efficient end-user prices and more efficient network usage. Finally, COBAK reduces the need for regulatory intervention, both initially and as competition develops in telecommunications markets.

The paper also addresses various implementation issues raised by COBAK. Among other things, the paper discusses the issue of identifying central offices under COBAK and possible incentives created by COBAK to locate central offices inefficiently. The paper also discusses certain cost recovery issues arising from the fact that, under COBAK, carriers will recover the cost of termination from their end users. The paper proposes various alternative solutions to these problems.

I. INTRODUCTION

1. The Telecommunications Act of 1996 ("1996 Act")[1] envisions competitive, deregulated telecommunications markets, in which services are provided by multiple complementary and competing interconnected networks. Unfortunately, the existing patchwork of interconnection regimes, which are based on such historical, regulatory distinctions as local vs. long-distance, interstate vs. intrastate, and basic vs. enhanced,[2] was not designed for competitive and deregulated telecommunications markets, and may not facilitate the efficient development of competition in telecommunications markets. Moreover, the existing interconnection regimes may not be sustainable in increasingly competitive telecommunications markets.

2. For example, the explosive growth of the Internet is creating regulatory arbitrage opportunities[3] that are undermining existing interconnection regimes. Specifically, Internet telephony and Internet Protocol ("IP") telephony, which generally are not subject to interstate access charges, are increasingly becoming substitutes for traditional long-distance service that is subject to these charges. Thus, the continued growth of these services as their quality improves is likely to threaten the existing access charge regime.[4] In addition, the rapid increase in dial-up Internet usage is creating unbalanced traffic flows between local exchange carriers ("LECs"), which, under the reciprocal compensation scheme set forth in the 1996 Act,[5] is resulting in substantial revenue transfers from incumbent LECs ("ILECs") to competitive LECs ("CLECs") that serve Internet Service Providers ("ISPs"). This problem is referred to generally as the "ISP reciprocal compensation problem."[6]

3. This paper proposes a unified approach to interconnection pricing called Central Office Bill and Keep ("COBAK"), which would apply to interconnection arrangements between all types of carriers that interconnect with the local circuit-switched network – including agreements between two local exchange carriers and those

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[1] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56, *codified at* 47 U.S.C. §§ 151 *et seq.*

[2] *See* David Sieradzki, *Will Online Calls Kill Access Charges?*, LEGAL TIMES, May 8, 2000, at 35.

[3] The phrase "regulatory arbitrage" refers to profit-seeking behavior that seeks to take advantage of cost or revenue disparities that are due solely to regulation. It should be noted that this definition differs somewhat from the traditional definition of "arbitrage" as "an operation involving simultaneous purchase and sale of and asset . . . in two or more markets between which there are price differences or discrepancies." THE MIT DICTIONARY OF MODERN ECONOMICS 17 (David W. Pearce, ed. 1992).

[4] *See, e.g.*, Peter Huber, *Old Regulations Stifle the New Economy*, WALL ST. J., June 5, 2000 at A32; Mike Senkowski & Jeff Linder, *Is it a Zebra or a Striped Horse? Internet Telephony Challenges Traditional Regulatory Distinctions*, LEGAL TIMES, May 8, 2000, at 33-34; David Sieradzki, *supra* note 2. *See also Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501 (1998) (*Stevens Report*) (discussing various types of Internet telephony and whether they should be subject to access charges).

[5] *See* 47 U.S.C. §§ 251(b)(5), 252(d)(2).

[6] *See, e.g.,* David Sieradzki, *supra* note 2.

between a local exchange carrier and an interexchange carrier (also referred to as "IXC" or "long-distance carrier"). COBAK also would apply to all types of traffic that pass over the local circuit-switched network – including local and long-distance calls, wireless to wireline calls, and dial-up connections to the Internet. As proposed, COBAK is a *default* interconnection regime, which means it would only apply when two networks cannot agree on the terms for interconnection.

4. As discussed in greater detail below, the COBAK proposal is premised in large part on three observations. First, both parties to a call – *i.e.*, the calling party and the called party – generally benefit from a call, and therefore should share the cost of the call.[7] By requiring interconnecting networks to recover most, if not all, of the cost of the call from their own customers, COBAK provides an efficient means by which the parties to a call can share the total cost of a call. The second observation is that competition operates more effectively when carriers recover their costs from their own end users, who can choose among competing carriers, rather than from interconnecting networks for whom the terminating carrier is a *de facto* monopolist. COBAK takes advantage of the forces of competition, where they exist, by requiring a carrier to recover all of its local access costs[8] from its end users. Finally, COBAK recognizes that opportunities for regulatory arbitrage arise when regulation results in different charges being assessed for the same facility depending on the specific services provided by that facility. COBAK eliminates these arbitrage opportunities by recovering the cost of certain telephone facilities (such as the local loop and local switching) directly from subscribers, and thereby eliminating the need to recover these costs from different services that are provided over these facilities.

5. The COBAK proposal consists of two rules for local calls involving two networks. First, the *called party's network* cannot charge the calling party's network for terminating the call.[9] Second, the *calling party's network* is responsible for the cost of transporting calls between the calling party's central office and the called party's central office.[10] As discussed below, these rules are easily extended to apply to calls requiring

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[7] *See, e.g.*, Patrick DeGraba, Efficient Interconnection Regimes for Competing Networks (October 2000) (on file with the Office of Plans and Policy, Federal Communications Commission).

[8] As discussed below, *local access costs* include the cost of the loop and the cost of the local switch nearest to the customer. *See* section III.A *infra.*

[9] In this sense, COBAK differs from most current interconnection regimes, under which the calling party's network must pay the called party's network for terminating the call. *See generally Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, 16024-25 (1996) (*Local Competition First Report and Order*), aff'd in part and vacated in part sub nom. *Competitive Telecommunications Ass'n v. FCC*, 117 F.3d 1068 (8th Cir. 1997) and *Iowa Utils. Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997), aff'd in part and remanded, *AT&T v. Iowa Utils. Bd.*, 525 U.S. 366 (1999).

[10] As discussed in greater detail below, the calling party's network may accomplish this by: constructing its own transport links, purchasing transport facilities or services from the called party's network, or purchasing or leasing such facilities or services from a third network. In the early stages of moving from monopoly to competition – when incumbent local carriers still possess monopoly power over local network facilities – it will most likely be necessary to require the incumbent to provide transport facilities to

more than two networks, such as a long-distance call involving an interexchange carrier.

6. This paper is organized as follows. Section II provides a brief overview of existing interconnection regimes and their associated problems. Section III explains the COBAK proposal and provides examples of how it would apply. Section IV discusses the theoretical and policy justifications for the COBAK proposal. Section V discusses how COBAK eliminates or ameliorates the most important problems plaguing the current interconnection regime. Finally, Section VI raises certain implementation issues. The paper does not address any of the legal issues raised by the COBAK proposal or possible transition strategies, however.

II. OVERVIEW OF EXISTING INTERCONNECTION REGIMES AND THEIR PROBLEMS

7. In order to understand the COBAK proposal and its potential benefits, it is necessary to understand the existing patchwork system of interconnection arrangements and the problems associated with this system. Accordingly, this section first provides a broad overview of existing interconnection regimes. It then describes some of the problems associated with the existing system.

A. Existing Interconnection Regimes

8. For much of this century, local telephony was viewed as a natural monopoly.[11] Local telephone companies were given monopoly franchises and protected from competitive entry, but in return were subjected to rate regulation and certain universal service obligations.[12] Because of their monopoly position, however, local telephone companies had incentives to resist interconnecting with certain other networks.[13] More

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interconnecting networks at regulated rates. Nevertheless, even if the incumbent network provides the facilities, the cost of transporting the call remains on the calling party's network, which either leases the incumbent's facilities or purchases transport services from the incumbent. *See* sections III.A, III.B *infra*.

[11] *See, e.g.*, PETER W. HUBER, MICHAEL K. KELLOGG & JOHN THORNE, FEDERAL TELECOMMUNICATIONS LAW 2 (2d ed. 1999) (hereinafter "PETER W. HUBER, ET AL.") ("The high cost of fixed plant, the steadily declining average cost of service, and the need for all customers to interconnect with one another made it seem both sensible and inevitable to have a single, monopoly provider."); JEAN-JACQUES LAFFONT & JEAN TIROLE, COMPETITION IN TELECOMMUNICATIONS 3 (2000) ("The absence of competition was motivated by the existence of large fixed costs in several parts of the network, whose duplication was neither privately profitable nor socially desirable; the telecommunications industry was deemed to be a 'natural monopoly.'"). *See also AT&T v. Iowa Utils. Bd.*, 525 U.S. 366, 370 (1999) ("Until the 1990s, local phone service was thought to be a natural monopoly.").

[12] *See generally* PETER W. HUBER, ET AL., *supra* note 11 at 212-26 (summarizing early history of telephone regulation); GERALD W. BROCK, TELECOMMUNICATION POLICY FOR THE INFORMATION AGE 63-70 (1994) (same).

[13] *See, e.g.*, David F. Weiman & Richard C. Levin, *Preying for Monopoly? The Case of Southern Bell Telephone Company, 1894-1912*, 102 J. POL. ECON. 103 (1994) (describing predatory strategies of AT&T,

specifically, local telephone companies generally had no incentive to interconnect with competing local telephone companies, and, when forced to interconnect, generally sought to impose high interconnection costs on other networks.[14] As a result, regulators, both at the state or federal level, traditionally have intervened and regulated interconnection arrangements between local telephone companies and other interconnecting parties.

9. In addition, regulators at both the federal and state levels have frequently used interconnection regulation to achieve various social goals. For example, in order to keep local rates low, both federal and state regulators have permitted local telephone companies to charge long-distance companies above-cost access charges for originating and terminating long-distance calls.[15] Similarly, in order to encourage the development of enhanced services, the Commission in 1983 exempted enhanced service providers from these access charge requirements.[16]

10. What has resulted over time is a complex and frequently arbitrary patchwork of interconnection regulations that treats different classes of interconnecting parties and different types of services quite disparately even though there may be little difference in the costs that they generate.[17] The interconnection regime that applies in a particular situation depends on such factors as: whether the interconnecting party is another local carrier, an interexchange carrier, or a subscriber; whether the service is classified as local or long-distance, interstate or intrastate, or basic or enhanced; and whether a call is completed using an enhanced service provider.

11. Broadly speaking, however, interconnection rules can be divided into two basic types: one set of rules that applies to "local" calls, and a second set of rules that applies to "long-distance" calls. Both sets of rules are, of course, subject to a number of exceptions.

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including its refusal to interconnect with independent telephone companies); PETER W. HUBER, ET AL., *supra* note 11 at 213 (same).

[14] *See* section IV.A *infra.*

[15] *See, e.g., Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 8784-85, at paras. 10-12 (1997) (*Universal Service Report and Order*) (discussing implicit subsidies, including those in access charges); PETER W. HUBER ET AL., *supra* note 11 at 552 (same).

[16] *See MTS and WATS Market Structure*, CC Docket No. 78-72, Memorandum Opinion and Order, 97 FCC 2d 682, 711-12 (1983) (*MTS and WATS Order*).

[17] This system of interconnection regulation is further complicated by the fact that telecommunications users, telecommunications carriers and other service providers can interconnect with an incumbent LEC's network in a variety of ways. For example, a party can interconnect with an incumbent LEC's network at the line side or trunk side of a switch, and it can interconnect at an end-office switch or a tandem switch. *See, e.g., Local Competition First Report and Order*, 11 FCC Rcd at 15608-09, paras. 209-12. Similarly, a party seeking to interconnect with an incumbent LEC can construct its own transport links to connect to the incumbent's network, or it can purchase them from the incumbent or from third parties. *See, e.g., Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696 (1999) (*Local Competition Third Report and Order*).

12. Thus, for example, when a customer of one LEC makes a local call to a customer of another LEC, that local call is subject to reciprocal compensation.[18] Under the Commission's current reciprocal compensation rules for incumbent LECs, the calling party's network generally must pay the called party's network to terminate the call (*i.e.*, to deliver the call from the central office serving the called party to the called party's premises).[19] In addition, if the calling party's network uses the transport facilities of the called party's network to deliver the call to the called party's local central office, it must also pay the called party's network for transport. The Commission's current rules also permit states to impose bill-and-keep arrangements if "traffic is relatively balanced."[20]

13. If the call is a long-distance call, however, then the calling party's interexchange carrier must pay both the originating local carrier and terminating local carrier either intrastate or interstate access charges, depending on whether the call crosses state lines. Finally, if the call is a long-distance call, but the customer uses a computer connected to an ISP to make an Internet telephony call, no originating access charges would be owed.[21]

14. An alternative way to analyze interconnection regimes is to distinguish between "calling-party's-network pays" (CPNP) regimes and "bill-and-keep" regimes. In CPNP regimes, which cover the majority of interconnection arrangements for basic voice traffic, the calling party's network (the local exchange carrier in the case of a local call or the interexchange carrier in the case of a toll call) pays the called party's local network to terminate a call (and possibly also to transport the call). Thus, in the case of a local call, the calling party's LEC is required to pay transport and termination for traffic that terminates on the called party's network. Similarly, in the case of a long-distance call, the calling party's interexchange carrier must pay terminating access charges, either interstate or intrastate, to the called party's LEC to terminate the call (as well as originating access charges to the calling party's LEC to originate the call).

15. The second type of arrangement involves no inter-carrier compensation and is generally referred to as a "bill-and-keep" arrangement.[22] Under such arrangements, the

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[18] *See* 47 U.S.C. §§ 251(b)(5), 252(d)(2). *See also Local Competition First Report and Order*, 11 FCC Rcd at 16008-58, paras. 1027-1118.

[19] *See id.* at 16024-25, paras. 1057-58.

[20] *Id.* at 16055, para. 1112. It is interesting to note that traditionally contiguous, but non-overlapping incumbent local exchange networks have frequently exchanged traffic on a bill-and-keep basis.

[21] *See MTS and WATS Order*, 97 FCC 2d 682; *see generally* PETER W. HUBER, ET AL., *supra* note 11 at 127-29. Whether terminating access charges would be owed depends on how the provider of the Internet telephony service decides to terminate the call. It appears that today many such providers find it easier simply to pay terminating access charges when delivering the call.

[22] *See, e.g., Local Competition First Report and Order*, 11 FCC Rcd at 16045-58, paras. 1096-1118 (discussing bill-and-keep interconnection arrangements); *Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket No. 95-185, Notice of Proposed Rulemaking, 11 FCC Rcd 5020 (1996) (*LEC-CMRS Interconnection NPRM*) (same).

calling party's carrier does not have to pay the called party's carrier to terminate a call; rather, the called party's carrier must recover the cost of termination from its end-user customer.[23] As previously indicated, such arrangements traditionally existed between adjacent local exchange carriers, such as between a Bell Operating Company ("BOC") and a neighboring rural ILEC. In addition, the 1996 Act states that the pricing rules applicable to interconnection agreements between incumbent LECs and other LECs do not "preclude" bill-and-keep arrangements.[24]

B. Problems Caused by Existing Interconnection Regimes

16. The current collection of interconnection regimes is not only complex – it also suffers from a number of fundamental problems. These problems distort usage of the network and deployment of facilities, impede the development of competition and the relaxation of regulation, and threaten the continued viability of the existing system.

17. First and foremost, the current interconnection regimes create significant opportunities to game the system through regulatory arbitrage. One such opportunity arises from the fact that IXCs must pay interstate and intrastate access charges to the LEC that originates a long-distance call, while an ISP that provides Internet or Internet Protocol ("IP") telephony does not.[25] Consequently, an end user can avoid access charges by utilizing IP telephony to place long-distance calls.[26] Although this has not proven a

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[23] The treatment of transport costs may vary depending upon the specific bill-and-keep proposal. *See* section IV.D *infra*.

[24] 47 U.S.C. § 252(d)(2)(B).

[25] The phrases "Internet telephony" and "Internet Protocol telephony" ("IP telephony") refer to similar, but distinct concepts. IP telephony involves the provision of a telephony service or application using Internet Protocol. IP telephony may be provided over the public Internet or over a private IP network. In contrast, Internet telephony is a subset of IP telephony that is distinguished by the fact that it is provided over the public Internet and uses the domain-name system for routing. *See, e.g., Stevens Report,* 13 FCC Rcd at 11541-51, paras. 83-104 (discussing Internet and IP telephony); HARRY NEWTON, NEWTON'S TELECOM DICTIONARY 378 (14th ed. 1998) (same). For simplicity, the text will refer generally to the broader concept of IP telephony.

IP telephony can also be categorized by the equipment used to provide the service. For example, IP telephony may be provided using two personal computers ("computer-to-computer" IP telephony); the service may be provided between a computer and a standard telephone using a single IP gateway ("computer-to-phone" IP telephony); or it may be provided using two standard telephones that connect through two IP gateways ("phone-to-phone" IP telephony). *See, e.g., Stevens Report,* 13 FCC Rcd at 11543-44, paras. 87-89.

[26] Depending on how an IP telephone call is provided, the call may be subject to access charges, reciprocal compensation, or no charges. As an example, suppose that two parties make a computer-to-computer IP telephone call. In this case, no access charges would apply, but reciprocal compensation charges might apply. In particular, if the calling party's ISP is a customer of a different LEC than the calling party himself, then the calling party's LEC is likely to be required to pay reciprocal compensation to the ISP's LEC. In this case, not only does the calling party's LEC not receive access charges, but it must also pay reciprocal compensation. If, on the other hand, the calling party and the calling party's ISP were both customers of the same LEC, then no inter-carrier charges would apply.

serious problem to date, improvements in the quality of IP telephony could lead to significant substitution of IP telephony for traditional circuit-based long-distance service, with a consequent erosion in access revenues. A second source of regulatory arbitrage arises from the fact that the interconnection charges, which the calling party's network has to pay to the called party's network, generally are above cost and inefficiently structured.[27] Thus, for example, various CLECs have targeted ISPs, which generally have only incoming traffic, as customers, in order to become net recipients of local traffic. ILECs claim that this has cost them billions of dollars in reciprocal compensation payments.[28] Both sources of regulatory arbitrage can distort the incentives of carriers to invest and deploy facilities efficiently and to offer services to customers.[29]

18. A second problem is that current interconnection regimes typically confer on all local carriers market power over terminating access. This market power arises from the fact that interconnecting originating networks, including both local and interexchange carriers, have no alternative carrier that can terminate a call. In effect, each terminating carrier, no matter how small, has a monopoly over termination to its own customers. Moreover, under existing rules, neither the calling party nor the called party will have to pay the excessive termination charges, and, therefore, there will be no incentive for the called party to switch carriers. More specifically, the called party, by definition, will not incur the excessive termination charges, and, because of geographic rate-averaging requirements,[30] the calling party will have little or no incentive to complain to the called party or ask him to switch carriers. This presents regulators with the unattractive choice of allowing non-incumbent carriers to exercise their market power,[31] permitting IXCs to refuse to deliver calls to terminating carriers that charge excessive rates, or regulating the terminating access rates of all carriers, including those that would not possess market

[27] Termination charges typically are structured as per-minute charges. Yet it is clear that most switching costs are based on required peak capacity rather than minutes of use. *See, e.g., Access Charge Reform*, CC Docket No. 96-262, Fifth Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 14221, 14328-30, paras. 211-16 (1999) (*Pricing Flexibility Order and NPRM*) (noting that switching costs vary with peak demand and not the total number of switched minutes).

[28] *See, e.g.,* Letter from W. Scott Randolph, Verizon Communications, to Magalie R. Salas, Secretary, FCC (Nov. 1, 2000), filed in Docket No. 99-68.

[29] Most dial-up Internet service still passes through the circuit switches of the traditional telephone network. It would be more efficient, however, to strip such calls off the circuit-switched network before they reach the calling party's switch, route them over a packet-switched network, and then bypass the called party's circuit switch when terminating the call. Doing so would eliminate the need to tie up a circuit during an Internet session, which is clearly inefficient as packets are transferred during only a small fraction of the period a customer is online. CLECs serving ISPs would, most likely, oppose such an arrangement, however, since it would prevent them from collecting termination charges on a per-minute basis.

[30] Note that, because of geographic rate-averaging requirements, IXCs cannot pass these high termination charges directly through to calling parties who place calls to these high-priced networks. Thus, end-user customers on networks with high termination charges are unlikely even to hear complaints from the parties that call them.

[31] ILECs generally are not able to exercise terminating market power because their interconnection rates are regulated.

power under alternative interconnection regimes.[32]

19. Third, the existing system of inter-carrier interconnection charges is likely to result in inefficient end-user charges. To the extent that interconnection charges tend to be traffic sensitive (*i.e.*, set on a per-minute or per-call basis), they create pressure on carriers to adopt traffic-sensitive retail prices. If the underlying network costs are not traffic sensitive, however, then these traffic-sensitive retail rates will reduce usage of the network to inefficient levels.[33] In addition, such interconnection charges may result in customers paying higher prices for calls that cross networks than for calls that remain on one network. Such pricing would be inconsistent with the goal of providing interconnection between networks that is seamless and transparent to customers.

20. Finally, as will become clear below, a fundamental flaw with a majority of the existing interconnection regimes is that they are CPNP regimes, which impose all of the costs of a call on the calling party. Many of the problems affecting current interconnection regimes can be solved by moving to an interconnection regime that appropriately divides the cost of a call between the calling party and the called party. The next section proposes such a regime.

III. THE COBAK PROPOSAL

21. This section presents an approach to interconnection pricing called "Central Office Bill and Keep" or "COBAK." COBAK is a default interconnection regime, which would apply only when two networks cannot agree on the terms for interconnection. In contrast to the existing patchwork of interconnection regimes, COBAK is a unified approach to interconnection pricing, which would apply to all types of carriers that interconnect with, and to all types of traffic that passes over, the local, circuit-switched network. Thus, COBAK applies to both local and toll traffic (including interstate and intrastate toll), and it applies to interconnection agreements between, for example, competing local carriers, adjacent local carriers, wireless and wireline carriers, and local and long-distance carriers.

22. This section first sets forth the COBAK proposal. It then illustrates how the COBAK rules would apply to a number of different interconnection scenarios.

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[32] *See, e.g., Pricing Flexibility Order and NPRM*, 14 FCC Rcd at 14312-20, paras. 180-90 (discussing problem of CLEC access charges). *See also* JEAN-JACQUES LAFFONT & JEAN TIROLE, *supra* note 11 at 186 (discussing "common fallacy" that small players do not have market power and should therefore face no constraint on their termination charges). In fact, carriers with smaller market shares may have a greater incentive to charge excessive terminating access charges because those charges are unlikely to be flowed through to interconnecting carriers' end-user prices. *See id.*

[33] More specifically, because carriers will view traffic-sensitive interconnection charges as raising their marginal costs, they will tend to raise their traffic-sensitive retail prices, even though the underlying cost structure of the networks may be non-traffic-sensitive.

A. The COBAK Rules

23. For purposes of this discussion, consider a telecommunications network as consisting of two parts: (1) *local access facilities*, consisting of the loop serving the customers' premises and the central office switches that serve the customers' loops, and (2) *transport facilities*, consisting of both inter-office trunks and tandem switches.[34] Further, for purposes of this discussion, define *termination* as the delivery of a call, by the called party's network, over the local access facilities to the called party, and *transport* as the routing and delivery of a call from the calling party's central office to the called party's central office.[35]

24. With these definitions, COBAK can be described in terms of two basic, default rules. The first rule specifies how the cost of local access facilities should be recovered, while the second specifies which network is responsible for the cost of transport. For simplicity, let us begin by considering calls that traverse just two networks, such as a local call that originates on one local network and terminates on another local network in the same local calling area.

Rule 1: No carrier may recover any costs of its customers' local access facilities from an interconnecting carrier. This rule means that the called party's network cannot charge the calling party's network to recover any costs associated with either the called party's loop or the switch that serves that loop. Thus, each carrier must recover the cost of local access facilities from its own end-user customers.

Rule 2: For calls traversing two networks, the calling party's network is responsible for the cost of transporting the call to the called party's central office. Because the calling party's network is responsible for transporting a call to the called party's central office, the calling party's network must either provide its own transport facilities or pay another carrier, including possibly the called party's carrier, to transport the call to the central office serving the called party.

25. The following examples illustrate these rules. First, suppose that there are two networks, and each builds its own transport facilities to connect its network to the other network's central offices. In this case, the calling party's network would deliver a call from the calling party to the central office of the called party, where the called party's

[34] A loop provides connection between the customer and the central office that switches a call onto the transport network. The term "loop," as used here, can refer either to the traditional wireline facility that connects a customer's premise to a switch, or a wireless connection, whether fixed or mobile, between a customer and the switch of the wireless network. The central office can be viewed as a place in the network where loops are aggregated and calls are switched onto the transport network. *See* section VI.A *infra*.

[35] *Cf. Local Competition First Report and Order*, 11 FCC Rcd at 16015, paras. 1039-40 (defining *termination* as "the switching of traffic that is subject to section 251(b)(5) at the terminating carrier's end office switch (or equivalent facility) and delivery of that traffic from that switch to the called party's premises," and *transport* as "the transmission of terminating traffic that is subject to section 251(b)(5) from the interconnection point between the two carriers to the terminating carrier's end office switch that directly serves the called party (or equivalent facility provided by a non-incumbent carrier).").

network would then terminate the call. Since both networks in this example possess their own transport facilities, the networks would exchange traffic at the central offices of the called party on a bill-and-keep basis – hence the name "Central Office Bill and Keep." Now suppose that a calling party's carrier physically interconnected at some point on the called party's network other than at the called party's central office, such as at a tandem switch. In this case, the calling party's network would have to pay the called party's network for the use of the tandem switch and for transport links to the central office. It would not, however, pay a termination charge to contribute to the cost of the central office switch or the loop. Finally, it should be noted that a carrier could satisfy Rule 2 by leasing transport facilities or purchasing transport services from a third party. This last option is becoming more likely as the market for transport becomes increasingly competitive.

26. For calls traversing three networks, such as a long-distance call carried by an interexchange carrier, the first rule remains the same, while the second rule only requires slight modification. Under COBAK, the calling party is responsible for all of the costs of transport to the central office serving the called party. The calling party satisfies this responsibility by contracting with both a local network that will originate the call and an interexchange network that will transport the call from the calling party's local network to the called party's central office. More specifically, under COBAK, the calling party's *local carrier* is responsible for carrying the call from the calling party to the point of presence ("POP") of the calling party's interexchange carrier. The calling party's *interexchange carrier* is then responsible for carrying the call to the central office serving the called party. As with a local call, the called party's network is responsible for the cost of terminating a call over the local access facilities.

27. Thus, COBAK eliminates *all* originating access charges. It also eliminates any terminating access charges intended to recover the cost of the loop or the terminating central office. COBAK does not, however, eliminate access charges for terminating transport if the IXC uses the terminating LEC's transport facilities.

28. Notice that, in an interexchange call, the calling party's local network is responsible for delivering the call to the interexchange carrier's POP, just as it is responsible, in the case of a two-network call, for delivering the call to the central office of the called party. Thus, Rule 2 may be modified as follows:

Rule 2A: For interexchange calls, the calling party's local network is responsible for delivering the call to the point of presence of the calling party's interexchange carrier; the calling party's interexchange carrier is then responsible for delivering the call to the called party's central office.

29. It is worth reiterating that COBAK is a default interconnection regime which would apply only if two interconnecting carriers are unable to reach a negotiated agreement on the terms of interconnection. It does not constrain in any way the kind of agreement carriers are allowed to negotiate.

30. This does not mean that the COBAK rules will not influence negotiated

outcomes. In fact, the default rules, to a large extent, will determine the outcome of the negotiation. For example, COBAK's Rule 2 often creates incentives for interconnecting networks to establish a meet point between their two networks and to exchange traffic within a specific geographic area on a bill-and-keep basis at that point. In particular, to the extent that two carriers have relatively balanced traffic exchanges, they are likely to find it in their mutual interest to agree to such a meet-point arrangement, as this arrangement is likely to be less expensive than each carrier's building it own separate transport facilities to each central office of the other network.[36] Similarly, several networks could agree to establish a common network access point ("NAP") or point of interconnection (similar to NAPs in the Internet) and all exchange traffic on a bill-and-keep (or other agreed upon) basis at such a point.[37]

31. It is also worth pointing out that COBAK represents an approach to *interconnection pricing* between carriers; it does *not* specify how retail rates should be set. To the extent that local switch costs that formerly were recovered through access charges must now be recovered from end users, COBAK does not specify how those costs should be recovered. COBAK thus would not preclude regulators from simply shifting the per-minute, local-switching access charges from the IXC to the LEC's customer.[38]

32. Finally, COBAK does not preclude alternative retail relationships between a carrier and an end user. For example, it would not be inconsistent with COBAK for an interexchange carrier to offer an "800 service" in which the called party pays the interexchange carrier for the cost of transporting the call. Nor would COBAK preclude a "calling-party-pays" service, where the called party's carrier bills calling parties (who may not be subscribers) for the cost of terminating a call.[39] In fact, a carrier seeking to offer a "calling-party-pays" service could even negotiate with the calling party's network

[36] Even if traffic is not balanced, interconnecting networks are still likely to have an incentive to share the cost of building shared transport links. Specifically, provided that both networks originate some traffic and that it is cheaper to build a single shared transport facility than two separate transport facilities, then the parties will have an incentive to agree to a shared facility whose cost would be split in some way between the two carriers.

[37] In fact, it has been proposed that the Commission establish such points of interconnection and require networks to interconnect on a bill-and-keep basis at such points. Douglas A. Galbi, *Transforming the Structure of Network Interconnection and Transport,* 8 J. COMM. L. & POL. 203 (2000). While there are clearly some advantages of such an arrangement, such as eliminating the need to determine what qualifies as a central office, it creates administrative problems of its own, including determining where such points would be located, who would run such interconnection points, and how the quality level of interconnection would be determined and maintained.

[38] This issue is discussed in greater detail in section VI.F *infra*.

[39] Such "calling-party-pays" services are commonly offered by wireless carriers in other countries. In addition, the Commission addressed this issue in *Calling Party Pays Service Offering in the Commercial Mobile Radio Services*, WT Docket No. 97-207, Declaratory Ruling and Notice of Proposed Rulemaking, 14 FCC Rcd 10861 (1999). Of course, such calling-party-pays arrangements create a terminating access problem. *See, e.g.*, Office of Telecommunications, Price Control Review (Oct. 2000) at paras. 2.32-2.35 (discussing need to regulate price of calls made by wireline customers to wireless customers).

to have the latter network act as the collection agent. COBAK would only preclude the terminating carrier's demand that the originating carrier pay the cost of terminating a call as a condition for interconnection.

B. Illustrative Applications of the COBAK Rules

33. The following examples illustrate how COBAK would apply to a number of different interconnection scenarios.

34. *Example 1 – A Local Call Between Two Networks Interconnecting at the Central Office:* Suppose there are two local networks in a city, A and B, each of which owns one local switch. In addition, assume that A owns a transport trunk connecting its switch to B's switch. In this case, for calls originating on A's network, A will use its own transport facilities to deliver calls to B's central office, and it will not have to pay B to terminate these calls. Thus, for these calls, interconnection occurs on a bill-and-keep basis at B's central office.

35. Suppose now that one of B's customers originates a call to a customer on A's network. B is responsible for the cost of transporting the call to A's central office. To satisfy this responsibility, B could either build its own transport trunk, use A's transport facilities, in which case it would pay A for this transport, or purchase transport from a third party.

36. *Example 2 – A Local Call Between Two Networks with Interconnection at a Tandem Switch:* Again, assume that there are two local networks, but this time further assume that A has several central offices connected to a tandem switch, while B has just one central office switch. Finally, assume that B interconnects with A at the tandem switch. In this case, if a customer of B calls a customer of A, B would have to pay A for the cost of tandem switching and transport from the tandem to the called party's central office, but B would not have to pay termination costs. Thus, A could not charge B for any part of the cost of the local switch or the called party's loop.

37. Suppose now that a customer of A calls a customer of B. In this case, A could carry the call to B's central office, in which case it would owe B nothing. Or, A could choose to use B's interconnection trunks. In this case, A would have to pay B for transport from the tandem switch to B's central office, but A would not have to pay B for termination.

38. *Example 3 – A Long-Distance Call Involving an Interexchange Carrier:* Suppose that a customer wants to make a long-distance call. The calling party's local carrier is responsible for delivering the call to the point of presence, or POP, of the calling party's interexchange carrier and can only recover this cost from the end user and not the IXC. The calling party's IXC is then responsible for delivering the call to the central office serving the called party. It recovers this cost from its customer, the calling party. Finally, the terminating local carrier serving the called party is responsible for delivering the call from the central office to the called party, and it recovers the termination costs from its end user, the called party. As discussed above, the only access

charges the IXC might have to pay are for transport to the local central office of the called party.

39. *Example 4 – A Long-Distance Call Involving a LEC with No Direct Connection to the IXC:* Suppose a rural LEC connects indirectly to the POP of an IXC by "transiting" the network of a larger adjacent LEC. For an interexchange call made by the rural LEC's customer, the rural LEC is responsible for delivering the call to the IXC's POP. This means, in this case, that the rural LEC will have to pay a transport charge to the larger adjacent LEC to have the latter transport the call to the IXC's POP.

40. Suppose now that the rural carrier's customer is a recipient of a long-distance call. In this case, COBAK dictates that the IXC is responsible for transporting the call to the rural LEC's central office, which serves the called party. This means that the IXC will have to pay transport charges to cover the cost of transport from its POP to the rural LEC's central office. This transport charge, which normally is billed by the larger LEC that is actually connected to the IXC, would then be split between the rural LEC and the larger adjacent LEC.

41. It may be helpful to compare COBAK to existing interconnection regimes. With respect to local calls, COBAK resembles the existing reciprocal compensation rules in making the calling party's network responsible for the cost of transporting the call to the central office of the called party. COBAK differs from the existing reciprocal compensation scheme in that the called party's carrier cannot recover from the calling party's network any of the cost of terminating the call over the called party's local access facilities.

42. For interstate and intrastate long-distance calls, COBAK represents a more significant departure from the existing access charge regime. As previously mentioned, the IXC, under COBAK, will pay no originating access charges at all to the calling party's local carrier, and it will pay no local switching or carrier-common-line charge to the called party's local carrier. At most, it will only pay the called party's local carrier for transport from the POP to the central office, should it choose to use the transport facilities of the called party's local carrier.

43. It is worth emphasizing that this paper is not proposing that COBAK be made the default for interconnection negotiations among Internet backbones. Internet backbones have been able to negotiate interconnection agreements among themselves without any regulatory intervention so far, and there appears to be no good reason to modify the existing system where it appears to be working well without the assistance of regulators.

IV. THEORETICAL AND POLICY JUSTIFICATIONS FOR COBAK

44. The previous section laid out the COBAK proposal and provided examples of how it would apply to various interconnection scenarios. This section describes the theoretical and policy rationales underlying the COBAK proposal. More specifically, the

section first discusses the appropriate goals of an interconnection pricing regime in competitive markets. It next discusses the critical assumptions underlying the prevailing CPNP interconnection regimes – that the calling party is the sole cost-causer and sole beneficiary of a call – and explains why those assumptions are unrealistic and need to be reconsidered as competition is introduced into telecommunications markets. The section then explains the implications for interconnection pricing of adopting the more realistic assumption that both parties to a call "cause" the call and benefit from the call. Finally, the section lays out the theoretical and policy justifications for the two COBAK rules. In this regard, the section also explains how COBAK's default rules should encourage parties to negotiate efficient interconnection agreements without the need for regulatory intervention.

A. The Appropriate Goals of an Interconnection Pricing Regime in Competitive Markets

45. There is general, though not universal, agreement that some regulation of interconnection is required at least between incumbent local exchange carriers and entering competitors. As suggested above, this is because small, new networks need interconnection with large networks in order to attract customers and compete with the incumbent. Without such interconnection, small networks would provide connection to only a few other customers, which would severely limit the value of their network. Large, incumbent networks, on the other hand, have a strong incentive to refuse to interconnect at all or to interconnect only on terms or conditions that would competitively disadvantage their new competitors, as a means of forestalling competition.[40]

46. While suggesting the need for some form of interconnection regulation, these observations do not explain which form of interconnection regulation is most desirable from society's perspective. Moreover, regulators historically have used interconnection policy to achieve a variety of objectives, and have not always clearly articulated those objectives.[41] Finally, at least under certain interconnection regimes, the regulatory objectives appear to conflict. For example, building implicit subsidies into interconnection rates might encourage universal service, yet it is inconsistent with the goal of encouraging the efficient use of the network by customers, the efficient deployment of facilities by carriers, and the efficient development of competition.

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[40] *See, e.g., Local Competition First Report and Order*, 11 FCC Rcd at 15508, para. 10 ("Because an incumbent currently serves virtually all subscribers in its local serving area, an incumbent LEC has little economic incentive to assist new entrants in their efforts to secure a greater share of the market. An incumbent LEC also has the ability to act on its incentive to discourage entry and robust competition by not interconnecting its network with the new entrant's network or by insisting on supracompetitive prices or other unreasonable conditions. . . " (footnote omitted)); *see also* Robert D. Willig, *The Theory of Network Access Pricing, in* ISSUES IN PUBLIC UTILITY REGULATION 109, 146 (H. Trebing, ed. 1979); Mark Armstrong, Chris Doyle & John Vickers, *The Access Pricing Problem: A Synthesis,* 44 J. IND. ECON. 130 (1996); Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility,* 75 AMER. ECON. REV. 424 (1985).

[41] *See, e.g.,* JEAN-JACQUES LAFFONT & JEAN TIROLE, *supra* note 11 at 98 (noting that interconnection regulation generally "must reflect multiple objectives.").

Similarly, as discussed below, an interconnection regime that leads to efficient use of the network may be inconsistent with reduced regulation over time.[42]

47. With the introduction of competition into telecommunications markets, and particularly local telecommunications markets, however, regulators need to limit the objectives they seek to accomplish with interconnection policy in order not to distort the development of competition.[43] In particular, regulators need to focus on designing an *efficient* interconnection regime. This means, first, that the interconnection regime should encourage consumers to make efficient use of telecommunications networks, and, second, that it should encourage networks to make efficient investment in, and deployment of, network infrastructure.

48. In addition, efficiency means that the interconnection regime should minimize regulatory costs. Such regulatory costs include not only the administrative costs of regulation, but also costs associated with market distortions resulting from regulatory mistakes or imperfect information on the part of the regulator, which might, for example, lead to a miscalculation of interconnection costs. These considerations suggest that a default interconnection rule should be simple and easy for the regulator to implement.

B. Revisiting the Assumptions Underlying the Current CPNP Interconnection Regime

49. Economic analyses of interconnection pricing have generally assumed that the calling party is the sole cost-causer and the sole beneficiary of a call. While these assumptions may have been a useful means of simplifying the analysis of various interconnection pricing problems, they have long been recognized as unrealistic,[44] and, with the growth of competition in telecommunications, they need to be reconsidered.

50. As competition was introduced into the long-distance market, economists began considering the price that an incumbent local telephone company, controlling a bottleneck facility, should charge a competing long-distance company for access to its network.[45] A particular focus of these studies was how to set the price of access along

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[42] *See* paras. 89-90 *infra.*

[43] To the extent that regulators seek to achieve other goals as well, they should address these separately from interconnection policy. In addition, with the introduction of competition, regulators need to take care that their efforts to achieve these other goals do not distort the efficient development of competition.

[44] *See, e.g.,* Robert D. Willig, *supra* note 40 at 124-28 (discussing the fact that the called party generally benefits from a call); Lyn Squire, *Some Aspects of Optimal Pricing for Telecommunications*, 4 BELL J. ECON. 515 (1973) (same).

[45] Early studies included: Roland Artle & Christian Averous, *The Telephone System as a Public Good: Static and Dynamic Aspects*, 4 BELL J. ECON. 89 (1973); Lyn Squire, *supra* note 44; Jeffrey Rohlfs, *A Theory of Interdependent Demand for a Communications Service*, 5 BELL J. ECON. 16 (1974); Robert D. Willig, *supra* note 40. For more recent studies, *see, e.g.,* Jean-Jacques Laffont & Jean Tirole, *Access Pricing and Competition*, 38 EUR. ECON. REV. 1673 (1994); Mark Armstrong, Chris Doyle & John Vickers, *The Access Pricing Problem*, 44 J. Ind. Econ. 131 (1996); Jean-Jacques Laffont, Patrick Rey & Jean Tirole, *Network Competition: I. Overview and Nondiscriminatory Pricing*, 29 RAND J. ECON. 1

with the prices of other retail services offered by an incumbent carrier, so as to achieve efficient usage of the network while simultaneously taking account of network externalities and recovering the large, fixed costs exhibited by local telephone networks. To make their analyses tractable, these models tended to assume that the calling party was the sole cost-causer and sole beneficiary of the call.[46]

51. With the introduction of competition in local markets, the assumption that the calling party is the only cost-causer creates additional, and potentially more serious, inefficiencies. In particular, models employing this assumption generally do not consider many of the problems facing today's interconnection regimes, such as the ISP reciprocal compensation problem, the arbitrage problem caused by IP telephony, and the terminating access problem caused by competitive LECs not subject to rate regulation.

52. Given these new problems, it seems necessary to reconsider the assumptions made by these earlier studies that the calling party is the sole cost-causer and sole beneficiary of a call. As discussed below, it is critical to recognize that both the calling party and called party jointly cause the call and that both benefit. Adopting these more realistic assumptions, moreover, leads to alternative interconnection pricing regimes that solve many of the problems facing the existing regime.

53. With respect to cost causation, it is only a slight over-simplification to say that the cost a network incurs from completing a phone call is the cost of having a circuit used during the call. This "congestion" cost is the same for a network whether the call is originated by its end-user customer or received by its end-user customer.[47] Thus, with respect to resources used in a call, both the calling party's and called party's networks should be essentially indifferent whether its customer originated a particular call or its customer received the call. Finally, since both parties must agree to continue to carry on a conversation, it makes more sense to view both the calling party and called party as jointly causing the costs of a call.[48]

(1998); Jean-Jacques Laffont, Patrick Rey & Jean Tirole, *Network Competition: II Price Discrimination*, 29 Rand J. Econ. 38 (1998). *See generally* JEAN-JACQUES LAFFONT & JEAN TIROLE, *supra* note 11 at 102-04.

[46] Although these earlier studies assumed (at least implicitly) that the calling party was the sole beneficiary of the call, the authors of the studies, as previously indicated, clearly recognized that, in reality, both parties tended to benefit from calls. *See, e.g.*, Lyn Squire, *supra* note 44; Robert D. Willig, *supra* note 40 at 124-28. The reason that these authors were willing to make this simplifying assumption appeared to be that they believed that the parties to the call could internalize the cost of the call. *Id.* at 128.

[47] Of course, there also may be certain call set-up costs associated with initiating a call. These costs do not undermine the basic point, however, that both parties are responsible for continuing a call.

[48] A related argument is that, if the calling party had not initiated the call, then the call would not have been made. Thus, it has been argued that the calling party is the cost-causer and therefore should be charged *all* the costs of the call. This reasoning is wrong for at least two reasons. First, even if we grant that the call would not have occurred if the calling party did not initiate it, it is equally true that the call cannot continue without the consent of the called party. Thus any costs incurred by networks for the duration of the call are a result of a joint decision of the calling party and the called party to continue the call. Therefore, the calling and the called party are jointly responsible for all costs incurred during the duration of the call.

54. Similarly, with respect to benefits, it appears to make more sense to assume that, with respect to the vast majority of calls, both parties will receive some benefit. For example, a customer who, upon listening to his answering machine, calls someone who had left a message suggests that both parties to the call clearly expect to receive a benefit. Similarly, businesses that take 800 service, such as mail order catalogues, and other businesses that depend on in-coming calls, such as pizza delivery services, are further examples of situations where the called party clearly receives some benefits from a call. Finally, while it is true that people receive some unwanted calls (for example from telemarketers), it appears that these calls represent a small fraction of telephone traffic and thus hardly present the basis upon which to build an entire interconnection regime. This is particularly true given that the called party can simply hang up on unwanted calls.

55. Thus, in contrast to earlier economic analyses of interconnection pricing, it appears more appropriate to assume that both parties jointly cause the call, and that both share in the benefits of a call. We now consider some of the implications of changing the traditional assumptions. In order to simplify the discussion, we will further assume that the two networks have equal costs and that, on average, the called party and the calling party share equally in the benefit of a call.[49]

C. Implications of Revising the Assumptions Concerning Cost Causation and Benefits

56. One clear implication of the traditional assumption that the calling party is the sole cost-causer and sole beneficiary of a call is that the calling party should bear the full incremental cost of the call. This assumption provides the theoretical basis for CPNP regimes. If, instead, we assume that both parties to a call benefit from the call and that both jointly cause it, then this suggests that a CPNP regime in which the calling party bears the entire incremental cost of the call will not be efficient. This point is briefly developed below.

1. Efficient Usage by Customers

57. It is well established in economics that, for private goods[50] that are individually consumed by specific customers, the price should be set equal to marginal or

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Second, as a general matter, it is not true that, if the calling party did not make the call, then the call would not be made. As a simple counter example, suppose a customer on network A calls a customer on network B. When the called party does not answer the phone, the calling party leaves a message on the answering machine. If the customer on network B subsequently retrieves the message and calls back, whom should we say is the initiator or causer of the call? If the customer on B's network would not have called the customer on A's network but for the voice mail, then we might conclude that the customer on A's network is the initiator or causer of the call, but the customer on B's network is the one who dialed the successfully completed call.

[49] Relaxing this assumption and recognizing that different networks may have different costs does not change the basic results of this analysis nor does it undermine the two COBAK rules. *See* note 53 *infra.*

[50] *See, e.g.,* James M. Buchanan, "An Economic Theory of Clubs," 32 *Economica* 1 (1965) (discussing the differences between private and public goods).

incremental cost in order to encourage efficient consumption decisions.[51] Setting the price equal to incremental cost ensures that the consumer will purchase all units where the benefit he receives equals or exceeds the cost of the resources used to produce the good or service.

58. Where a good or service is jointly consumed by more than one consumer, such as a phone call, the analysis becomes slightly more complicated.[52] In the case of a phone call, for example, efficiency requires both that: (1) the sum of the benefits that both parties to the call receive equals or exceeds the cost of the resources used to produce the call; and (2) the benefit that each party to the call receives equals or exceeds the price that each party paid for the call.

59. If one assumes that the parties to a call benefit equally from the call, then, in order to achieve efficient consumption decisions, each party should pay one-half the incremental cost of the call.[53] If the incremental cost is split equally, then the benefits each party receives will equal or exceed the price he pays, while the total benefits both parties collectively receive will equal or exceed the costs of the resources used to provide the call.

2. Efficient Pricing by Carriers

60. The above analysis suggests that customers would make efficient consumption decisions if they faced retail prices that evenly divided the cost of a call between the parties. The next question thus becomes: what kind of interconnection

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[51] *See, e.g.,* I ALFRED E. KAHN, THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS 65-70 (1970).

[52] *See* James M. Buchanan, *supra* note 50.

[53] There are two possible complications to this analysis that should be noted. Neither complication should change the basic conclusion, however.

First, one needs to consider the implications if the two parties to a call do not benefit equally from the call (in the sense of having identical demand functions). Ramsey analysis suggests that, in that case, one should allocate the cost of each specific call based on the relative elasticities of demand of both parties to the call. Frank Ramsey, *A Contribution to the Theory of Taxation*, 37 ECON. J. 47 (1927); *see also* KENNETH E. TRAIN, OPTIMAL REGULATION: THE ECONOMIC THEORY OF NATURAL MONOPOLY 115-45 (1991). Unfortunately, it is clearly impossible in practice to estimate individuals' demands for specific calls, particularly for recipients of calls. Given this, it appears necessary to develop some general assumptions concerning demand. As the above analysis suggests, it appears more realistic to assume that both parties benefit equally than it is to assume that the calling party is the sole beneficiary of the call. *See also* para. 65 *infra.*

Second, one needs to consider the implications of two networks having different costs. In general a network with higher costs should offer greater services. For example, a mobile wireless network may have higher termination costs than a wireline network, but it offers its customers the advantage of mobility. Similarly, a broadband network may have higher costs, but again it may offer its customers the advantage of additional services. To the extent that differences in cost are due to differences in the features of a network, it appears reasonable to require the party choosing the more expensive network to pay for the additional costs of that network.

pricing regime will give carriers the incentive to set such prices.

61. If there is no inter-carrier compensation, then carriers must recover the cost of termination from their own customers. If there is sufficient competition for end-user customers, then carriers will only be able to charge prices that, on average, just recover these costs. If, on the other hand, there is insufficient competition, then the regulator will have to regulate the prices charged by dominant carriers (*i.e.*, those with individual market power), to ensure the efficient level and structure of end-user charges. The regulator should not have to regulate the rates charged by non-dominant carriers, however.[54] As competition develops, the regulator should be able to relax regulation of all end-user rates.

62. Thus, to the extent that both parties to a call benefit equally from the call, this suggests that the parties should share equally in the cost of the call.[55] Moreover, requiring carriers to recover network costs from their own customers has the added benefit of maximizing the influence of competition on prices.

D. Rationale Underlying the COBAK Rules

63. This section applies the analysis of the previous section in explaining the economic and policy rationale behind each of the COBAK rules. The section first shows how the above analysis directly supports the first rule of COBAK – that carriers recover local access costs from their end-user customers. The section then explains why the second default rule of COBAK – that carriers are responsible for the cost of transporting calls to the called party's local central office – deviates somewhat from the above analysis. Finally, the section explains how the COBAK default rules should lead to efficient and successful negotiations between carriers in the majority of circumstances.

1. Rationale for Rule 1: Why the Costs of Local Access Should Be Recovered from End User Customers.

64. The main rationale for Rule 1 of COBAK follows directly from the above analysis. Specifically, if both parties benefit equally from a call, then they should share equally in the cost of the facilities necessary to provide the call. COBAK's first rule will divide the cost of local access between the calling party and the called party by requiring that each party pay for his own loop and local switching costs.

65. Of course, not every call will equally benefit the calling party and called

[54] *See, e.g., Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, CC Docket No. 79-252, First Report and Order, 85 FCC 2d 1, 31-35 (1980) (*Competitive Carrier First Report and Order*) (discussing reasons it is unnecessary to regulate the rates of non-dominant carriers).

[55] As previously noted, there is a slight exception to the general rule that the parties should equally split the cost of the call. Specifically, if one network has higher costs than another because it offers more features, such as mobility, it appears reasonable to require the customer subscribing to, and benefiting from, the more expensive network to pay the higher costs.

party, and, accordingly, no simple, uniform interconnection rule can ensure that the cost of every call will be allocated proportionately to the benefits received by each party to the particular call. Nevertheless, if on average both parties to a call benefit equally, then a system in which the parties share the cost of the call will provide a more efficient cost recovery basis on average than a system in which the calling party bears the entire cost of the call.[56]

66. There are other reasons that justify COBAK's first rule as well. As discussed below,[57] COBAK should: (1) significantly reduce the terminating monopoly access problem; (2) allow carriers greater flexibility to achieve efficient end-user rate structures (rather than rely on per-minute charges to recover inter-carrier charges); and (3) reduce the incentive of carriers to discriminate against off-net calls.

2. Rationale for Rule 2: Why the Calling Party's Network Should Bear the Cost of Transport.

67. The above analysis suggests that, if the parties to a call benefit equally from a call, they should share equally in its costs, including the cost of transport. COBAK's second rule does not require such equal sharing, however. Rather, it requires that the calling party's network bear the entire cost of transport. COBAK's second rule diverges from this theoretical prescription of equal-cost sharing for the reasons explained below.

68. Wherever networks interconnect, each network has an incentive to shift the cost of transporting calls to the other network. Thus, for example, assuming the absence of transport charges, a network would prefer to interconnect at a single point (*e.g.*, a tandem switch), rather than at multiple central offices, and have the called party's network carry the call to the called party. Similarly, where two networks are interconnected at multiple points, the originating network has an incentive to drop the call off as soon as possible on the terminating network, and thus shift as much of the transport cost as possible onto the latter network. One of the main issues that any rule allocating transport costs must address, therefore, is how to minimize free-riding on other carriers' transport networks.

69. There are several potential rules that address this free-rider problem. One such rule would be to require the two networks to split equally the incremental cost of transport. This solution clearly would be consistent with the above analysis favoring the equal sharing of costs.[58] Unfortunately, it raises several problems. First, and most

[56] *See* Patrick DeGraba, *supra* note 7.

[57] *See* section V *infra.*

[58] A more regulatory approach would be for a regulator to simply announce a default location at which carriers must exchange traffic destined for a specific geographic area on a bill-and-keep basis. Again, such a location would have to be used only as a default for carriers that are unable to reach agreement on interconnection points. *See* Douglas A. Galbi, *supra* note 37. One major problem with this approach is that there is no reason to suppose that the regulator will have the information necessary to select efficient meet point locations.

important, this rule would prove extremely complicated for a regulator to implement. For example, if one network wanted to interconnect at a single point, while the second carrier wanted to interconnect at multiple points, it is not clear how an arbitrator would decide this issue. Furthermore, even if two networks agreed where to interconnect, it is not clear what the incremental cost of transport would be. The following example illustrates this problem. Suppose that network A has several switches connected to a tandem switch, while network B has a single switch. Suppose further that A and B agree to interconnect mid-way between A's tandem and B's switch. In this scenario, the incremental cost of transport is not simply the cost of the transport trunk connecting A's tandem and B's switch. Rather, network A would likely have to increase the capacity of its interoffice trunks and possibly the capacity of its tandem and end-office switches as a result of interconnection; and network B might have to increase the capacity of its single switch. In other words, the incremental transport costs attributable to interconnection are not limited to the cost of the physical trunks linking the two networks, but may also include certain incremental costs of expanding other portions of the network to handle changing traffic patterns. These incremental interconnection costs, however, are likely to be difficult to estimate and subject to considerable debate.

70. In addition, it is not at all clear how one would split transport costs where a call involved three or more networks. While it is possible to imagine a generalization of the "split-the-cost" rule for transport costs where three or more networks are involved, such a rule would likely be complicated and difficult to implement. Moreover, because of its likely complexity, parties might be less willing to accept such a rule.

71. COBAK's second rule – requiring the calling party's carrier to be responsible for the cost of transporting the call to the called party's local central office – offers several significant advantages over the "split-the-cost" approach. First, the rule can be easily implemented if the parties cannot agree. Specifically, the calling party's network can always satisfy Rule 2 by constructing transport facilities to the called party's central office or by leasing transport facilities from another carrier. In addition, as discussed below,[59] it appears reasonable, at least during the introduction of competition into local markets, to require incumbent local carriers to lease transport facilities to interconnecting carriers at regulated rates.

72. Second, unlike the split-the-cost approach, COBAK does not require carriers to agree on the specific routes for an interconnecting transport network. Rather, each network will be free to design its transport network so as to best serve the needs of its customers. For example, in the case of a new entrant interconnecting with an incumbent carrier, the new entrant can decide whether to have dedicated transport trunks to each of the incumbent's central offices or to interconnect at the incumbent's tandem switch and purchase tandem-switched transport. In addition, each carrier can decide the capacity of its dedicated interconnection trunks, which will determine the quality of service provided.

73. The final, and most important, advantage of COBAK's second rule is that it

[59] *See* section VI.E *infra*.

should encourage parties to negotiate between themselves and avoid resorting to the regulator. Specifically, where the two networks both originate and terminate traffic, it generally will be in their mutual interest to negotiate a meet-point interconnection arrangement, since it is generally cheaper to build a single transport trunk than for each individually to construct a separate transport trunk. In other words, because COBAK's second rule does not specify the efficient solution as the default, it increases the incentive of the parties to negotiate the efficient solution.

74. It should be noted that, where one of the networks exclusively (or primarily) receives traffic, COBAK may not result in a negotiated bill-and-keep arrangement. In that case, because the one-way network will not be delivering traffic, it will not need to build its own transport facilities under the default rule, and therefore will have no incentive to share the cost of a meet-point arrangement. It is not clear how significant a problem this will prove in practice, however. First, most networks do originate some traffic, and to the extent they do, they will have an incentive to negotiate some cost-sharing arrangement. Second, although COBAK does not solve this problem, it still represents an improvement over the existing reciprocal compensation regime, where one-way networks not only do not have to share the cost of transport, but also are paid to terminate incoming traffic. At least, COBAK eliminates the uneconomic incentive created by existing termination charges. Finally, as discussed below, additional remedies can limit the extent to which "receive-only" networks can impose transport costs on other networks.[60]

V. EXISTING INTERCONNECTION PROBLEMS SOLVED BY COBAK

75. The previous section outlined the theoretical and policy justifications for the COBAK proposal. This section discusses a number of serious problems affecting existing interconnection regimes that COBAK either eliminates or ameliorates.

A. Problems of Regulatory Arbitrage

76. Perhaps the most important problems facing existing interconnection regimes are the several opportunities for regulatory arbitrage that they create. The two most important arbitrage opportunities, in dollar terms, are discussed below.[61]

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[60] *See* section VI.B *infra.*

[61] There are other sources of regulatory arbitrage as well. For example, large end users may employ Private Branch Exchange ("PBX") on their premises. In some cases, such PBX customers may also employ leased lines to connect multiple PBX's at distant locations (such as at different regional offices). These leased lines permit employees to call other employees at remote offices without incurring access charges. In some private networks, however, employees can also place "off-net" calls that traverse the leased line and then "hop off" onto the local exchange network. Because these off-net calls are treated like any other call from the PBX, access charges do not apply. This problem of the "leaky PBX" caused a sufficient erosion in access charges that the Commission imposed a $25 per month charge for each leased trunk that could "leak" traffic into the public switched network. *See* 47 C.F.R. § 69.115. *See generally MTS and WATS*

1. Access Charge Arbitrage

77. One source of arbitrage arises from the disparate treatment of interexchange and local telephone calls. Under current regulations, the calling party's LEC collects originating access charges from its customer's pre-subscribed IXC when that customer makes a long-distance call. Because the IXC passes on such charges in higher per-minute long-distance charges, the calling party, in making a long-distance call, effectively (if indirectly) pays his LEC for the local facilities used on a per-minute basis. In contrast to the access regime, customers in most parts of the country can purchase unlimited local calling on a flat-rated basis (*i.e.*, there is no per-minute charge for originating local calls).

78. These rules create an arbitrage opportunity for providers of IP telephony services that is likely to become significant as the quality of IP telephony improves.[62] In particular, through the enhanced services exemption, the IP telephony provider generally does not have to pay originating access charges to the calling party's LEC. Thus, if a customer can reach its ISP by dialing a local call, it can then use an IP telephony provider to make long-distance calls and avoid originating (and possibly terminating) access charges. This arbitrage opportunity arises because, for long-distance calls, the calling party pays local access on a per-minute basis, while, for local calls, the calling party typically pays for the same access on a flat-rated basis.

79. Moreover, this opportunity for regulatory arbitrage is exacerbated if the ISP is a customer of another local exchange carrier. In that case, when the calling party makes a long-distance call using IP telephony, not only does the calling party's LEC *not* receive originating access charges; it also must pay a termination charge to the ISP's LEC.

80. COBAK eliminates this disparate treatment of local versus long-distance calls by requiring the calling party's LEC, in both cases, to recover its local access and transport costs from its end-user customer. Moreover, under COBAK, neither the IXC nor the ISP's LEC can charge the calling party's LEC for termination. Thus, COBAK eliminates any non-economic, regulation-induced incentive to choose an IP telephony provider over a traditional IXC, because customers face the same cost recovery mechanism for local access. Under COBAK, therefore, any differences in the cost of a long-distance call provided by a traditional IXC, compared with that provided by an IP telephony provider, should be based on the relative efficiencies of the carrier's networks and operations, which (along with the quality of service provided) is precisely the

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Market Structure, CC Doc. No. 78-72, First Reconsideration Order, 97 FCC2d 682 (1983), Second Reconsideration Order, 97 FCC2d 834 (1984). This charge was designed to compensate the LEC, at least partially, for the loss of regular access charges that would have applied if the call were handled as a regular long-distance call. COBAK should reduce this problem just as it reduces the problem of IP telephony arbitrage discussed in the text.

[62] It appears that the current inferior quality of IP telephony, compared with circuit-switched long-distance service, combined with reductions in per-minute access charges, has limited somewhat the shift to IP telephony in this country. Expected quality improvements in IP telephony are likely to accelerate the erosion of access revenues, however.

criterion on which a customer should choose a carrier.

2. ISP Reciprocal Compensation Problem

81. A second source of regulatory arbitrage arises from the fact that, under the Commission's existing rules, the calling party's LEC generally must pay termination charges for local traffic terminating on another LEC's network,[63] and that these termination charges generally are above-cost or inefficiently structured. Because of this, certain CLECs have targeted as customers ISPs and other entities that primarily receive calls in order to generate unbalanced traffic flows and thus collect termination revenues from incumbent LECs. This problem is frequently referred to as the "ISP reciprocal compensation problem." Exacerbating this problem is the fact that, given the prevalence of flat-rated local service, incumbent LECs generally are unable to recover their termination costs from their customers who cause them.

82. Another problem, closely related to the ISP reciprocal compensation problem, is the problem of "one way" networks. Under the existing reciprocal compensation regime, a business that primarily receives calls has an incentive to claim to be a network. More specifically, instead of purchasing business lines from a LEC, such a business has an incentive to install a switch and claim to be a network in order collect termination charges for all the calls it receives. The difference between the two problems is that the ISP reciprocal compensation problem concerns the incentives of carriers to seek customers that primarily receive traffic, whereas this problem concerns the incentive of an entity to claim to be a carrier, rather than a customer, in order to avoid having to pay for a business line.

83. By eliminating termination charges, COBAK significantly reduces the ISP reciprocal compensation problem and the one-way-network problem, while at the same time freeing regulators from having to determine the economically efficient level and structure of termination charges. Thus, under COBAK, carriers will not be able to earn large profits by targeting customers that receive more minutes of traffic than they originate. It should be noted, however, that COBAK will not completely eliminate the incentive of a business that primarily receives calls to claim to be a network. Specifically, because COBAK requires the calling party's network to deliver the call to the local central office (or switch) of the called party, a business that primarily receives calls may still claim to be a network so that the calling parties' LECs will have to transport calls without charge to the business's switch. Under that scenario, the business may be able to avoid having to pay a retail end-user rate for a business line.

3. Inefficient Facilities Investment Resulting from Regulatory Arbitrage

84. The arbitrage opportunities discussed above not only cause significant rent transfers between carriers, they can also create incentives to invest inefficiently. In particular, carriers may have an incentive to invest, or not to invest, in a particular

[63] *See Local Competition First Report and Order*, 11 FCC Rcd at 16008-58, paras. 1027-1118.

technology because of the favorable regulatory treatment the technology receives, rather than because it minimizes the cost of providing service.

85. For example, the existence of a per-minute termination charge may deter certain competitive carriers from cooperating with incumbent carriers in adopting compatible packet-based technology that more efficiently handles data traffic. A network that receives more traffic than it delivers may be unwilling to adopt compatible technology, because doing so may reduce its revenues from reciprocal compensation. More specifically, time is the incorrect way to measure usage, or congestion, on packet-based networks, and terminating packet-based networks may not even be able to measure and bill the time a particular customer has been online. Because the use of per-minute termination charges appears to be incompatible with the use of packet-switched technology, carriers that terminate more traffic than they originate may well refuse to cooperate with other carriers in jointly adopting compatible packet-based technologies if this means that they will lose reciprocal compensation revenues.

86. The one-way-network problem generates similar incentives to invest inefficiently. Specifically, under the reciprocal compensation regimes adopted by the vast majority of states, networks that primarily receive calls are entitled to charge for termination, while business customers that primarily receive calls must simply pay a carrier for business lines. As previously noted, this dichotomy creates an incentive for a business that primarily receives calls to purchase a switch, self-provide dial tone, and claim to be a network in order to be able to charge termination fees for all the calls it receives.

87. COBAK reduces these incentive problems in at least two ways. First, COBAK is technology neutral; it applies the same rules regardless of the technology a carrier uses. This reduces the likelihood that a carrier will choose a less efficient technology solely because it receives more favorable regulatory treatment. Thus, COBAK gives carriers the incentive to use the technology that provides services at the least cost. Second, by eliminating per-minute termination charges, COBAK eliminates any incentives for carriers to invest inefficiently. In particular, COBAK reduces incentives arising from the ISP reciprocal compensation problem and the one-way-network problem.

88. It should be acknowledged that COBAK does not solve all the incentive problems, however. Specifically, there remains a small incentive under COBAK for an entity to claim to be a network rather than simply subscribe as a customer. If an entity can qualify as a network, it can avoid paying business line rates (and, as a carrier, be entitled to have calls transported to the business's switch). Nevertheless, such incentives exist today under the current interconnection regime, and this incentive is less than if the entity could also claim per-minute termination charges. Thus, COBAK does not introduce any new distortions.

B. Monopoly Power over Terminating Access

89. The current requirement that carriers pay the called party's network to

terminate calls confers monopoly power on the called party's network with respect to terminating access. This market power arises from the fact that the calling party's carrier, whether a local carrier or an IXC, has no alternative carrier that can terminate a call to a particular called party. Thus, the calling party's carrier must pay the terminating network whatever price it demands in order to reach the called party. In effect, each terminating carrier, no matter how small, has a monopoly over termination to its own customers. Recently in fact, IXCs have begun to complain that certain CLECs have exploited their monopoly power in termination by setting access charges that far exceed those charged by major incumbent LECs.[64]

90. This problem presents regulators with the unattractive choice of allowing non-incumbent carriers to exercise their terminating market power, which could raise retail prices and reduce network usage, or regulating the terminating access rates of all carriers, even those that would not possess market power under alternative interconnection regimes.[65] COBAK eliminates this problem by requiring a carrier to recover its termination costs from its own end-user customers. To the extent that a carrier faces competition from other carriers for end users, it will not have monopoly power over termination, since any attempt to charge above-cost rates is likely to cause it to lose customers to competing carriers. In the case where there is no competition for end users, the incumbent LEC's local rates would be regulated, as they traditionally have, and the issue of how to recover local access costs would simply be folded into the rest of the local rate regulation process. Thus, COBAK eliminates the need for regulators to set prices for termination.

C. The Problem of Estimating Interconnection Costs

91. An additional problem with the existing CPNP regime is that it requires regulators to set both the level and structure of interconnection rates. This is a difficult task for a regulator, made even more difficult by the fact that incumbent LECs possess the relevant information but have incentives not fully to disclose the information. More specifically, as previously discussed, incumbent LECs have an incentive, at least in the case of access charges, to report as high a cost (whether historical or forward-looking) as possible for their regulated services. For example, where the termination rate is based on the cost of switching, incumbent LECs may have an incentive to overstate both their direct costs of switching and the overheads that are to be allocated to switching. Setting reciprocal compensation rates (*i.e.*, rates for two-way access) raises related, but slightly different, issues.

92. It is also extremely difficult for regulators to set an efficient rate *structure*.

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[64] *See, e.g., Pricing Flexibility Order and NPRM*, 14 FCC Rcd at 14316-17, para. 186 (discussing AT&T's petition for declaratory ruling that complained of excessive CLEC access charges).

[65] *Id.* at 14312-20, paras. 180-89. *See also* JEAN-JACQUES LAFFONT & JEAN TIROLE, *supra* note 11 at 186 (discussing "common fallacy" that small players do not have market power and should therefore face no constraint on their termination charges). In fact, carriers with smaller market shares may have a greater incentive to charge excessive terminating access charges because those charges are unlikely to be flowed through to interconnecting carriers' end-user prices. *See id.*

Economists have long recognized that the efficient way to recover the cost of "congestible" or "traffic-sensitive" shared facilities, such as switches and transport trunks, is to adopt peak-load pricing.[66] Unfortunately, because of the practical difficulties of developing peak-load prices,[67] regulators, including the Commission, have tended to adopt per-minute pricing that attempts to recover the average cost of the congestible facility.[68] This means, however, that prices will be too high during off-peak periods and too low during peak periods. In addition, carriers have an incentive to overstate their termination costs to regulators in order to obtain a higher termination rate in the case of one-way access or in situations where the regulator sets individual termination rates for each carrier based on that carrier's costs.

93. COBAK eliminates both the need for regulators to set termination rates and the incentive of a carrier to overstate its termination costs. Specifically, by requiring carriers to recover the cost of local access from their end users, COBAK allows the workings of the competitive market to discipline the way that LECs recover local access costs. Once competition develops, if a carrier sets prices that more than recover the costs of serving a customer, a competing carrier is likely to lure the customer away by charging a lower price that better reflects the true cost of serving the customer. Similarly, if a carrier adopts an inefficient rate structure, it likewise risks losing customers to carriers that have adopted an efficient rate structure.

D. Retail Rate Inefficiencies Caused by Interconnection Rates

94. The existing interconnection regimes, particularly CPNP regimes, create certain inefficiencies that will tend to result in inefficient retail rates. Such inefficient retail rates can result in inefficient usage of the network and can distort customer choices among competing local carriers.

95. One source of inefficiency is that existing termination charges create an "artificial" per-minute cost structure for carriers that will tend to result in inefficient per-minute retail prices. In unregulated, competitive markets, such as the markets for CMRS services and Internet access services, retail pricing is moving away from per-minute

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[66] *See, e.g., Local Competition First Report and Order*, 11 FCC Rcd at 15878, para. 755 ("[A]s a matter of economic theory, . . . if usage-sensitive rates are used, then somewhat higher rates should apply to peak period traffic, with lower rates for non-peak usage. The peak load price would be designed to recover at least the cost of the increment of network capacity added to carry peak period traffic."). *See also* I ALFRED E. KAHN, *supra* note 51 at 89-103.

[67] In the *Local Competition Proceeding*, the Commission described some of the practical difficulties associated with peak-load pricing, including the fact that different geographic areas (such as downtown business areas compared with suburban residential areas) could experience peak volumes at different times, that such peak periods could shift over time (*e.g.*, due to increasing Internet usage), and that peak load pricing could cause peak period traffic to shift to off-peak periods. *See Local Competition First Report and Order*, 11 FCC Rcd at 15878, para. 756. *See also LEC-CMRS Interconnection NPRM*, 11 FCC Rcd at 5041-42, paras. 44-45 (discussing practical difficulties in setting peak-load interconnection rates).

[68] *See, e.g., Local Competition First Report and Order.*, 11 FCC Rcd at 15878-79, paras. 756-57 (declining to require states to impose peak-load reciprocal compensation rates).

charges and towards flat charges or two-part tariffs that guarantee a certain number of free minutes. This suggests that few costs are incurred on a per-minute basis, and that flat-rated pricing will lead to more efficient usage of the network. The existing reciprocal compensation scheme, which requires the calling party's network to pay usage sensitive termination charges to the called party's network, imposes an "artificial" per-minute cost structure on carriers which, if retail rates are unregulated, will likely be passed through to customers in the form of per-minute retail rates. Such usage sensitive rates thus would likely reduce usage of the network below efficient levels.[69]

96. COBAK solves this problem by eliminating per-minute termination charges, which in turn eliminates the artificial per-minute marginal cost of calling. In other words, COBAK eliminates any artificial usage-based costs that result from regulation. To the extent that retail rates are unregulated (for at least some carriers), this should lead to more efficient retail rates.

97. A second inefficiency caused by inter-carrier termination charges is that they create an artificial cost difference between on-net and off-net calls. Specifically, termination charges will cause carriers to have a higher effective cost for completing off-net calls than they have for completing on-net calls.[70] This cost differential will lead to several types of inefficient behavior.

98. If retail rates are *not* regulated, then this cost difference will tend to cause carriers to charge a higher price for off-net calls than for on-net calls. This in turn will create an incentive for customers to choose their network based, at least in part, on the customers that currently subscribe to the particular network, rather than on the basis of which network most efficiently meets his/her needs. This network externality not only will cause some customers to choose a network that they otherwise might not, but it could also increase the tendency of telecommunications markets to tip into monopoly, as larger

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[69] The ISP market illustrates the importance of rate structure on usage. When AOL changed from usage sensitive rates to a flat charge for unlimited usage in late 1996 the number of customers and the usage per customer rose dramatically and other competitors soon followed. *See, e.g.,* Kevin Coughlin, *AOL Logs on to Profits – Added Gear Revives Online Giant,* THE STAR LEDGER (May 18, 1997); Phil Waga, *AOL Smooths Out Problems, Readies New Features,* GANNET NEWS SERVICE (June 5, 1997). In addition, many believe that the main reason that Internet usage and penetration is lower in Europe than in the United States is because local service is priced on a traffic-sensitive basis in Europe, while it tends to be priced on a flat-rated basis in the United States. As a result, European regulators are considering how to offer flat-rated Internet access services. *See, e.g.,* Office of Telecommunications, Determination of a Dispute between BT and MCI Worldcom Concerning the Provision of a Flat Rate Internet Access Call Origination Product (FRIACO) (rel. May 26, 2000) (U.K. regulator requires incumbent LEC to offer flat-rated option to competitive ISPs); *Regulators Tell DT To Offer ISP's Flat-Rate Connections,* TELECOMMUNICATIONS REP., Nov. 20, 2000 at 23 (German regulator requires incumbent LEC to offer flat-rated option to competitive ISPs). Similarly, the introduction by CMRS providers in the United States of pricing plans that include "buckets" of minutes appear to have contributed significantly to the growth in wireless usage.

[70] More precisely, assuming that the LEC has the same average transport costs for on-net and off-net calls, the carrier can recover the transport cost of an on-net call from both parties to the call, whereas, in the case of an off-net call, it must recover the entire transport costs from the calling party.

networks will have a relative advantage in attracting new customers.[71]

99. If, on the other hand, retail rates *are* regulated, inter-carrier termination fees will cause a different type of inefficiency. In particular, if regulations require that termination costs be recovered from all customers equally, then CPNP termination will force a carrier's customers that do not make off-net calls to contribute to the cost of the facilities of other networks and to subsidize the carrier's customers that do make off-net calls. [72]

100. Again, COBAK substantially solves this problem, regardless of whether retail rates are regulated. By eliminating inter-carrier termination charges, COBAK eliminates any *artificial* cost differential between off-net and on-net calls.[73] This, in turn, will reduce the incentive of non-rate-regulated LECs to charge different prices for off-net and on-net calls.[74] In the case of rate regulated carriers, on the other hand, COBAK will reduce the ability of one network to impose its network costs on another network's customers.

101. A final possible inefficiency of the existing interconnection regime is that the inter-carrier interconnection charges may be used to facilitate oligopolistic collusion. More specifically, competing local networks may agree on above-cost interconnection charges in order to justify higher end-user prices.[75] Again, COBAK solves this problem by eliminating per-minute termination charges. Thus, under COBAK, carriers have no ability to collude by agreeing on above-cost interconnection charges.

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[71] *See,* Patrick DeGraba, *supra* note 7.

[72] To illustrate this, suppose that there are two networks – an incumbent LEC network and a CLEC network. Suppose further that the CLEC's only customer is an ISP that only receive calls from the ILEC's network. In this case, if the termination charge for the CLEC's network equals the per-minute cost of its switch, then the CLEC network would recover the entire cost of the switch through termination charges. Thus, customers of the ILEC's network will pay for the entire cost of the CLEC's switch.

[73] COBAK will not completely eliminate the cost differential between on-net and off-net calls, however. In the case of an on-net call, the carrier can split the cost of transport between the calling and called parties. In the case of an off-net call, however, the calling party's carrier, which bears the entire cost of transport, can only recover that cost from its own end-user customer. Thus, if the COBAK default is employed, the calling party's carrier is likely to view an off-net call as somewhat more expensive than an on-net call. If, as appears likely, however, carriers negotiate a meet-point arrangement in which they split the transport costs, this should reduce any cost differential.

[74] Of course a carrier may still choose to offer different rates for off-net and on-net calls as a marketing device. In a competitive market, however, such pricing would tend to survive only if it were efficient. The important point is that such rates are not induced by the regulatory regime.

[75] JEAN-JACQUES LAFFONT & JEAN TIROLE, *supra* note 11 at 190-95.

VI. IMPLEMENTATION ISSUES FOR COBAK

102. Like any other interconnection regime, COBAK raises a number of implementation issues which would have to be resolved before COBAK could be adopted. Several of the more important issues are discussed below.

A. Identifying Central Offices

103. COBAK's second rule makes the calling party's carrier responsible for the cost of transporting the call to the called party's central office. This raises two separate implementation issues concerning the location of central offices. First, to the extent that there is any uncertainty concerning which facilities qualify as a central office, this rule will give networks an incentive to claim that their central offices are as close to the end-user customer as possible. Second, and relatedly, this rule may cause networks to locate their central offices inefficiently. These issues are discussed in this and the next sections.

104. To illustrate the first issue, consider a traditional wireline carrier that employs digital-loop-carrier ("DLC") technology.[76] The DLC electronics typically are installed in a remote terminal ("RT") located somewhere between the central office and the customers' premises. All else being equal, such a carrier would rather have the RT declared a central office than the switch to which it is connected. Although this issue is not likely to prove a significant problem for existing network technologies, it could prove a problem as new technologies are developed and deployed.

105. It thus appears reasonable to adopt rules defining those points in a given network that qualify as central offices for purposes of COBAK. One approach would be to define the central office or local switch in terms of certain observable attributes. For example, one could define the central office as the node at which loops: (1) are aggregated, and (2) gain access to the transport network. The definition, of course, raises the question of what is meant by the phrase "gain access to the transport network."

106. A second approach would be to define a central office as a node that interconnects and exchanges traffic with other equivalent nodes. Under this definition, remote terminals would not be considered central offices because they do not exchange traffic with other remote terminals. Rather, remote terminals aggregate traffic for the purpose of carrying that traffic to the central office, which provides local switching. Alternatively (or additionally), one might define a central office as a node at which other networks can interconnect.

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[76] In a digital-loop-carrier system, "analog signals are carried from the customer's premises to a remote terminal (RT), at which they are converted to digital information, multiplexed with other signals, and transported, generally through fiber facilities, to the LEC central office." *Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket Nos. 98-147, 96-98, Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC Docket No. 96-98, 14 FCC Rcd 20912, 20945-46, para. 69 n.152 (1999) (*Line Sharing Order*).

107. An alternative approach would be to specify that, in order qualify as a central office, a node must connect a minimum number of customers (*e.g.*, 50,000). A similar approach would be to declare that any node within a specified distance of the called party (say, 15 miles) could be treated as the central office for purposes of COBAK.

108. Despite the abstract difficulties in defining the local central office, this does not appear to present an insurmountable problem in practice. First, as previously mentioned, there appears to be general agreement as to what constitutes a central office for today's wireline technology.[77] Second, it appears likely that networks will generally negotiate one or more meet points for exchanging traffic on a bill-and-keep basis, particularly where each network both originates and terminates traffic. They will find it in their mutual interest to so agree because they each can then avoid individually having to bear the cost of transport facilities to multiple end offices.

B. The Problem of Remotely Located Central Offices

109. Another implementation issue involving central offices is who should bear the cost of transport where the called party's network locates its central office switch in a remote location, such as outside the local calling areas.[78] Thus, for example, if both parties to a call live within the same local calling area, but the switch serving the called party is located in another state, should the calling party's network be forced to bear the cost of transporting the call to the called party's switch?[79] Note, in this regard, that this problem is likely to be significantly greater where the called party's network only receives traffic.

110. One way to deal with this problem, at least for incumbent LECs subject to retail rate regulation, would be through adjustments in retail end-user rates (competitive LECs clearly could implement this solution on their own). Thus, a regulator might allow the incumbent LEC to impose toll charges whenever its customers called customers served by remotely located central offices. To the extent that calling parties then complain to customers of the network with the distant central office, those customers might consider changing carriers so that friends and neighbors could call them without incurring toll charges. This potential loss of customers might thus induce the network with the remote central office to negotiate points of interconnection within a local calling

[77] Similarly, most would agree that the mobile telephone switching office ("MTSO") should qualify as the central office for a wireless network.

[78] This issue is a specific manifestation of the more general problem of whether COBAK, or any alternative interconnection regime, creates incentives for networks to deploy the efficient number of switches and to locate them efficiently. For example, one might also ask whether a particular regime creates appropriate incentives for carriers to choose the efficient number of central office and tandem switches to include in its network. While the more general question is beyond the scope of this paper, it appears that COBAK is likely to create fewer incentives to engage in inefficient investment than the current CPNP regime, for it eliminates inter-carrier termination payments.

[79] A similar problem arises in wireless networks, where a single MTSO may serve a very large geographic area. In that case, the question becomes whether wireline networks should be responsible for building transport facilities to the wireless network's MTSO.

area and to bear the cost of such "remote transport" itself. On the other hand, this solution may not be effective if the calling parties do not complain to the called party, or if the called party does not care about the toll charges others may pay.

111. A second approach would be to require the network with a remotely located switch to provide points of interconnection within a local calling area. Under this approach, each such point of interconnection would be treated as the called party's central office when the network with the remote switch receives calls from another network. This is similar to the practice of wireless carriers of establishing points of interconnection in local calling areas in order to avoid having calls to their network classified as a toll call.

112. Two final points are worth noting. First, as previously mentioned, this problem of remotely located central offices is likely to be particularly acute for networks that primarily or exclusively terminate traffic. Because, under COBAK, such "receive-only" networks are not responsible for the cost of transporting traffic they receive from other networks, they have no incentive to locate their central offices in a manner that minimizes the total cost of building transport facilities. The two approaches suggested above should mitigate these problems, however. For example, a paging company may have difficulty attracting customers if parties seeking to page those customers must incur a toll charge. Second, although COBAK does not completely eliminate incentives of carriers to locate central offices inefficiently, it certainly does not exacerbate the problem as compared with the existing CPNP interconnection regime. This is due to the fact that the calling party's network is responsible for the entire cost of transport under the current CPNP regime, just as it would be under COBAK.

C. Distinguishing Between Carriers and End-User Customers

113. A third implementation issue is whether COBAK, or any other interconnection regime, creates incentives for end-user customers to claim to be an interconnecting network. This "sham network" problem clearly exists under the current interconnection regime. Specifically, a business today, particularly if it primarily or exclusively receives calls, may have an incentive to claim to be a network instead of an end-user customer in order to: (1) receive reciprocal compensation payments; and (2) avoid paying business line rates to be connected to the incumbent's network.[80] Thus, for example, although the Commission, in the *Local Competition Order*, concluded that paging companies were local exchange carriers entitled to reciprocal compensation under section 251(b)(5),[81] ILECs have argued that they should not be required to transport calls,

[80] In addition, an entity may claim to be a network in order to qualify to lease unbundled network elements from an incumbent LEC. *See* 47 U.S.C. § 251(c)(3) (requiring an incumbent LEC to offer nondiscriminatory access to network elements on an unbundled basis to "any requesting telecommunications carrier").

[81] *Local Competition First Report and Order*, 11 FCC Rcd at 15997, para. 1008.

or to pay reciprocal compensation, to paging companies.[82]

114. COBAK significantly reduces this "sham network" problem. Specifically, by eliminating termination charges, COBAK eliminates the possibility that the interconnection regime could become a "money pump" for the business claiming to be a network.

115. COBAK does not entirely eliminate the incentive for a business that only receives calls to claim to be a network, however. In particular, if such a business can qualify as an interconnecting network, then the originating network will be responsible for the cost of transport to that business's switch, and the business can avoid having to pay a subscription fee (*i.e.*, purchase business service from the interconnecting carrier). For this reason, it seems reasonable to require some showing that the business claiming to be a network exhibits characteristics of a network, such as ownership of a switch.

116. Whether COBAK's inability to solve completely this "sham network" problem will pose a significant problem in practice is unclear. It may be that the costs of qualifying as a network, such as purchasing a switch or interconnecting with the incumbent's signaling system, may be sufficiently high as to render this problem a mere curiosity. What is clear, however, is that COBAK reduces the problem significantly, compared to the incentives that exist under the current CPNP regimes.

D. Accounting for "Unwanted" Calls

117. Much of the analysis of this paper assumes that the called party benefits from received calls and therefore should share in the cost of such calls. To the extent that implementation of COBAK results in the assessment of per-call or per-minute charges on the called party, the issue arises as to how to protect called parties from being charged for unwanted calls, such as calls from a telemarketer received during dinner. Note that this would not be a problem if the called party's carrier decided to recover local access costs through flat charges rather than per-minute or per-call charges. If, as suggested above, competition will tend to generate flat-rated end-user charges, rather than per-minute or per-call charges, this problem accordingly will not arise.

118. Even if there are per-minute end-user rates, unwanted calls do not appear to pose a significant problem, provided that the called party actually answers the phone and participates in the call. In this case, if the called party does not want to talk to the calling party, he can simply hang up, thus avoiding continuing termination charges. This should significantly limit the amount of per-minute charges for which the called party may be liable. Alternatively, carriers could agree (or could be required) not to charge their customers for the first minute of a received call. This incoming "free minute" would give called parties the opportunity to identify the calling party and decide whether they wish to continue the call.[83] Finally, parties, using caller-ID or similar devices, could

[82] *See, e.g., TSR Wireless, LLC v. U S West Communications*, File Nos. E-98-13 *et al.*, Memorandum Opinion and Order, 15 FCC Rcd 11166 (2000).

[83] It should be noted that many wireless companies offer this service today.

screen their calls to avoid incurring unwanted termination charges.

119. This issue could prove a bit more problematic for calls where the called party does not actually answer the phone. For example, if the calling party left a message on an answering machine or delivered an unsolicited fax, then the called party might be charged for termination without affirmatively accepting the charges. In addition, it is possible that parties may receive large unsolicited e-mails that, when downloaded, could tie up a telephone circuit for several minutes. Although it is not clear how significant a problem this may become, the last example suggests that it may become necessary, or advisable, to develop the technical capability to stop the transmission of large data files beyond the local central office, until the called party affirmatively approves the download.[84]

E. Determining Transport Rates

120. While COBAK makes the calling party's carrier responsible for the cost of transporting the call to the called party's local central office, it does not specify how the calling party's carrier should arrange for the transport of the call. Thus, while some carriers may construct their own transport network, others may lease transport facilities from other parties, including the incumbent LEC. The issue then arises whether regulators need to constrain in some way the lease rates charged for such transport facilities.

121. If there are a sufficient number of alternative providers of transport facilities, regulation should be unnecessary, for competition will drive the price or transport toward economic cost. If, however, the only provider of transport facilities is the incumbent LEC, then there is cause for concern, because the incumbent LEC may have an incentive to charge high prices for transport in order to deter entry. In such a case, it will be necessary to regulate the price that incumbent LECs charge for transport facilities, at least until competition renders such regulation unnecessary.[85] This regulation should be less extensive than what is currently required under the existing interconnection regime (which also regulates the rates charged for terminating switching), and moreover, should be able to be lifted as competition develops in the transport market.

F. Regulation of End User Charges

122. That COBAK eliminates most existing inter-carrier charges, and instead

[84] In fact, certain ISPs currently do just this when they merely notify customers that an e-mail has been received, but do not download the e-mail until the customer affirmatively opens the e-mail message.

[85] In the *Local Competition Proceeding*, the Commission identified transport facilities as a network element that must be provided to requesting carriers on an unbundled basis. *See Local Competition First Report and Order*, 11 FCC Rcd at 15714-22, paras. 428-51; *Local Competition Third Report and Order*, 15 FCC Rcd at 3840-66, paras. 319-80. The Commission has also indicated, however, that it will relax or eliminate regulation of transport rates as competition develops. *See Pricing Flexibility Order and NPRM*, 14 FCC Rcd 14221.

requires carriers to recover those costs from their end users, raises the general issue of whether it is necessary or appropriate to regulate the way in which carriers recover those costs from their end users. In particular, it raises the following two questions: First, under what conditions is it necessary to regulate the level or structure of end-user rates? Second, should LECs be allowed to charge end users different fees depending on whether the call terminates on or off the originating LEC's network? These issues are discussed briefly below.

1. The Need for Regulation of LEC End-User Charges

123. As previously explained, if COBAK were adopted, it would eliminate much of the revenues LECs currently receive from inter-carrier charges. Specifically, it would eliminate all originating access charges (both interstate and intrastate) and any terminating access charges that currently recover the cost of the loop and local switch. In addition, it would eliminate any revenues that LECs with unbalanced traffic receive from reciprocal compensation. Instead, under COBAK, LECs would recover the costs of these network facilities from their end users. The question then becomes: is it necessary to regulate the charges the LECs impose on their end users, or alternatively, for which carriers is it necessary to regulate such charges?

124. The answer to this question is clear, and already has been adopted. And it is the same answer that the Commission adopted when it opened the long-distance market to competition. Specifically, regulation of end-user rates is necessary and appropriate where a LEC is a dominant carrier (*i.e.,* possesses individual market power), but is unnecessary if a LEC is non-dominant (*i.e.,* does not possess individual market power).[86] Thus, it appears appropriate to extend rate regulation of incumbent LECs, where the LEC already is regulated, to the recovery of these costs, while it appears unnecessary to regulate the rates of carriers whose end-user rates are not currently subject to regulation. Moreover, as competition develops and erodes the market power of incumbent LECs, it should be possible to eliminate all regulation of end-user rates.

125. It is important to recognize that shifting the recovery of these costs from carriers to end users should not, on average, increase the total costs faced by end users. This is so because carriers that currently pay inter-carrier charges, like long-distance carriers, pass these costs on to end-user customers in the form of higher rates. Thus, although a customer may see an increase in the bill he receives from his LEC, he should see a corresponding decrease in other charges, such as lower charges from his long-distance carrier. Of course, to the extent that the existing interconnection regime (and the current geographic averaging requirement for long-distance carriers) involves implicit subsidies, a shift to COBAK may result in some shift in costs among specific groups of consumers, such as raising slightly the costs of customers in high cost areas. Any undue additional burden, however, should be able to be addressed through targeted universal service or other support.

126. Finally, although this paper does not attempt to address the legal issues

[86] *See Competitive Carrier First Report and Order*, 85 FCC 2d 1.

associated with the COBAK proposal, it is worth noting that COBAK could be implemented relatively easily. For example, the Commission, which has jurisdiction over interstate access charges, could simply adopt rules requiring that access charges currently assessed on IXCs instead be charged to the end user. Similarly, the state commissions could simply transfer the current intrastate access charges from IXCs to end users. Of course, it seems reasonable that both sets of regulators should reassess the rate structure of existing access charges before shifting them to end users.

2. Discriminatory End-User Rates

127. Regardless of the prevailing interconnection regime, a LEC may want to impose different end-user charges for different types of traffic. For example, while a LEC may offer unlimited calling within a specified geographic area for a flat monthly fee, it may wish to charge an additional fee when a customer calls a party outside that specified local calling area. Similarly, a LEC may want to charge a higher fee when a customer calls someone on another carrier's network. Finally, in order to encourage its customers to use its own interexchange affiliate or Internet service provider, a LEC might want to charge a customer an additional fee if the customer subscribed to a competing interexchange carrier or Internet service provider.

128. As a general matter, the issue of whether to permit discriminatory end-user charges is more of a competition or antitrust concern, rather than an interconnection concern *per se*. In other words, the real issue is whether specific instances of price discrimination constitute anti-competitive behavior, or whether they simply reflect an efficient method for recovering costs.[87]

129. If the relevant telecommunications market is sufficiently competitive that there is no dominant carrier, then permitting differential charges is not likely to cause a problem. Thus, for example, a LEC that attempted to charge its customers a usage fee, when connecting to a specific ISP, that was not cost-justified would likely find this strategy to be unprofitable. Specifically, if the market were sufficiently competitive, competing firms would offer equivalent interconnection at a lower charge and steal the first LEC's customers. Thus, if there is sufficient competition, it is unlikely that a single carrier could cause a competitive harm or hurt consumers by charging an above-cost fee.

130. Permitting a dominant firm to price discriminate in this manner could have anti-competitive consequences, however. For example, if a dominant LEC offered a complementary service, such as Internet service, for free, while charging customers that use a competing Internet service provider, this could competitively disadvantage competing Internet service providers. It is worth reiterating, however, that this is not an interconnection concern. This issue of the competitive effects of discriminatory end-user

[87] It should be noted that numerous examples of price discrimination can be found in competitive markets. For example, airlines typically charge significantly different prices for identical seats on the same or a similar flight, with the variation in price depending on such factors as how far in advance the customer books the flight, whether the passenger is staying over on a Saturday night, and whether the passenger is a member of the airline's frequent flyer club.

pricing arises regardless of the interconnection regime.

131. Although this issue of how to prevent the anti-competitive use of price discrimination is beyond the scope of this paper, it is worth noting that there are a number of different ways to address this problem. One simple approach would be to provide interconnecting carriers the option to avoid such discriminatory pricing. Specifically, if, for purposes of receiving calls, an interconnecting network agrees to bear all of the cost of transport between the central office of the calling party and that of the called party, then the calling party's network would not be able charge its customers an additional charge for calling customers of the interconnecting network.

132. Finally, it is worth reiterating that this problem of anti-competitive price discrimination can arise regardless of the particular interconnection pricing regime. Nevertheless, as competition is introduced among networks, this problem surely will become more significant, and regulators need to be alert to this possible problem.

VII. CONCLUSION

133. The existing patchwork of interconnection regimes has evolved over time in response to regulatory and service distinctions and multiple, evolving policy goals. Unfortunately, existing interconnection regimes face increasing problems as telecommunications markets become competitive, and as the Internet continues to experience explosive growth. These problems include various opportunities for regulatory arbitrage, the terminating monopoly access problem, and inefficient retail rate structures caused by inefficient interconnection prices. These growing problems call into question the continued viability of the existing system and highlight the need to develop a rational and uniform system of interconnection pricing that is technologically neutral and that will allow the lifting of regulation as competition develops.

134. This paper proposes a unified approach to interconnection pricing, which would apply to all types of carriers that interconnect with, and to all types of traffic that pass over, the local circuit-switched network. The proposed approach should eliminate or significantly ameliorate the most significant of the problems afflicting current interconnection regimes. It should also encourage efficient use of networks by customers and efficient investment and deployment by carriers. Finally, it should reduce the need for regulatory intervention, both now, and as competition develops in all telecommunications markets.

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December 2000

Jay M. Atkinson
Christopher C. Barnekov

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Executive Summary

This paper develops a consistent, competitively neutral regulatory regime for interconnection between telecommunications networks. It proposes a default bill and keep solution under which carriers split equally those costs that are solely incremental to interconnection, and recover all remaining costs from their own customers. The analysis differs from previous work primarily in that it distinguishes the costs incremental to interconnection from those incremental to increased traffic volume. The paper demonstrates for several basic network types that this default rule is competitively neutral and encourages efficient subscription and interconnection decisions. This default rule resolves serious common cost allocation, externality and gaming problems that arise under current interconnection regimes and under other proposed resolutions.

The key finding is that it is essential to isolate those costs incremental to interconnection *per se*. Local networks are assigned the costs of handling all the possible traffic that their subscribers generate in making or receiving calls. The additional facilities necessary to allow interconnection of two such fully provisioned networks can then be defined as the incremental cost of interconnection. Splitting these latter costs equally between the two networks produces competitively neutral results for basic network types. The paper argues that these results can be generalized to more complex network forms. These results do not depend on the technology used by the networks, on the balance of traffic between them, or on the level of termination costs.

The rapid pace of change of telecommunications market conditions requires a regime that is largely self-administering. As new entrants appear and new types of networks arise, current interconnection regimes become increasingly difficult to administer. This is because they involve intractable problems of allocating substantial common costs among services and among users. The best economists can offer under current approaches is a "second-best" solution that produces significant inefficiencies. This solution also creates opportunities for gaming and regulatory arbitrage that produce more inefficiencies. Furthermore, this solution requires much more information than regulators can acquire, and even the most diligent and clever regulator cannot make necessary adjustments at the pace at which market conditions are changing. The rule proposed here is a largely self-administering scheme that relies primarily on market mechanisms. It also enables efficient outcomes, rather than "second best" solutions attempted under current interconnection regimes.

This proposal resembles other "bill and keep" proposals in that it offers a structural solution to the intractable problems of allocating substantial common costs among services and among users that hamper current interconnection regimes. The FCC has successfully resolved similar problems in recent decades by separating more and less competitive segments of the market. The market for consumer premises equipment (CPE) was separated from that for local service. Enhanced services, particularly computer services, and long distance services were also separated from local service. This structural approach has generally enhanced competition and produced desirable results.

A Competitively Neutral Approach to Network Interconnection

I. INTRODUCTION

1. As both the number and the variety of telecommunications networks continue to multiply, interconnection is becoming increasingly important. As the number of controversies over network interconnection rises, it becomes increasingly useful to reconsider current regulatory approaches. It is not clear that these approaches can accommodate the new types of interconnection that are appearing or keep pace with market developments. We develop below a simple set of principles of interconnection and apply them to current and proposed interconnection regimes.

2. How would we know a good interconnection regime if we saw one? We propose that a good regime should result in a competitively neutral, economically efficient inter-carrier compensation and minimum regulatory intervention. By competitively neutral, we mean that the interconnection regime itself confers no special advantage or disadvantage on any carrier or technology.[1] Whatever advantages or disadvantages existed prior to interconnection remain undistorted by the interconnection regime. For several basic types of networks, we demonstrate below that competitively neutral interconnection is achieved by a simple rule: networks should share equally those costs that are solely incremental to interconnection and bear individually all costs that are not incremental to interconnection. We argue below that this result can also be generalized to more complex networks. We believe this rule is the minimum feasible regulation, and we argue below that it provides a competitively neutral and, with respect to interconnection, efficient outcome.

3. Our approach to the problem of interconnection differs from the usual treatment in the economics literature. The most fundamental difference is that the interconnection literature typically accepts existing institutional arrangements as given, then attempts to find pricing rules to navigate the morass of problems that arise from these arrangements.[2] In contrast, regarding institutional arrangements we begin *tabula rasa*, with a blank whiteboard, and consider whether alternative arrangements might lead to a simple, competitively neutral, efficient result.[3,4]

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[1] This corresponds to the definition of competitive neutrality adopted by the FCC for Universal Service purposes. See *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, 12 FCC Rec'd 8801, ¶47.

[2] A recent state of the art presentation of this approach is found in Jean-Jacques Laffont and Jean Tirole, *Competition in Telecommunications*, MIT Press, 2000. An earlier example is Robert D. Willig, "The Theory of Network Access Pricing" in *Issues in Public Utility Regulation*, H. Trebing, editor, Michigan State University Press, East Lansing, 1979.

[3] This is not our only departure from the customary approach. Very briefly, our main focus is on cost, rather than demand, and we distinguish costs incremental to interconnection from those incremental to traffic. We also depart from the typical view of the "network externality" problem, as discussed below. We develop these points more fully below.

4. Our differing approach is largely motivated by the rapidity with which new forms of interconnection are developing and market conditions are changing. This contrasts to the necessarily glacial pace at which even a supremely competent regulator can regulate in a society that values due process, eschews arbitrary and capricious exercise of power, and in which regulators have limited specific knowledge of market conditions.[5] From this perspective, reexamining the institutional arrangements seems the only workable approach to untangling the current inconsistent assortment of interconnection rules that have been crafted over recent decades for various telecommunications sectors to meet various policy objectives.[6] Despite this somewhat radical approach, we believe our analysis is generally consistent with previous analyses, in the sense that differences in results stem primarily from differences in assumed institutional arrangements. We also find that solutions similar to those we propose have been suggested previously by others, but were not adopted for reasons that apparently no longer apply.[7] We discuss briefly below, mainly in footnotes, how our analysis relates to the previous literature.

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[4] Our willingness to consider alternative institutional arrangements is uncommon, but not unique. For other recent examples, see Gerald W. Brock, "The Economics of Interconnection," Teleport Communications Group (1995). The three component articles in this publication were placed in the record in CC Docket No. 95-185 as attachments to comments by Comcast Corporation, Teleport Communications Group and Cox Communications. See also, Patrick Degraba, "Bill and Keep at the Central Office As the Efficient Interconnection Regime," Office of Plans and Policy, Federal Communications Commission, OPP Working Paper No. 33 (December 2000).

[5] See Friedrich A. Hayek, "The Use of Knowledge in Society," *American Economic Review*, XXXV, No. 4; September, 1945, 519-30, reprinted at http://www.virtualschool.edu/mon/Economics/HayekUseOfKnowledge.html.

[6] Recent history has demonstrated that in the current climate firms have difficulty predicting accurately what institutional rules will be in their interest in even the relatively short term. For example, reciprocal compensation arrangements that incumbent LECs believed were favorable to their interests have proved extremely costly. Over a span of three or four years, incumbent LECs claim that rapid growth in dial up Internet access traffic raised their payments to competitive LECs from small amounts to over $2 billion [Letter of W. Scott Randolph, Verizon Communications, to Magalie R. Salas, Secretary, FCC, November 1, 2000 in CC Docket No. 99-68]. This development took incumbent LECs utterly by surprise. At present, there is widespread uncertainty about such unknowns as the future impact of Internet telephony, broadband markets, changes in reciprocal compensation rules, various court rulings, and many other factors. This uncertainty seems greater than in the past, making it more difficult for firms to be sure what specific rules might later turn out to have been in their interest. This may make a general reexamination of basic institutional arrangements more feasible than usual, because no party can quite be sure what rule it would prefer in tomorrow's market. These conditions invite something of a "Rawlsian constitutional convention" [John Rawls, *A Theory of Justice*, The Belknap Press of Harvard University Press, 1971] in which parties seek a "fair game" because they do not know what their future interests will be.

[7] For the history and background of the development of current institutional arrangements, see Gerald W. Brock, *Telecommunication Policy For the Information Age: From Monopoly to Competition*, Harvard University Press, 1994.

II. EFFICIENT INTER-CARRIER COMPENSATION AS THE FOCUS FOR INTERCONNECTION POLICY

5. We believe it has become useful to depart from tradition by focusing on inter-carrier compensation rather than on end user charges. Until fairly recently, the primary focus of interconnection policy has been the distribution of costs among end users, and the literature has focused on end user pricing. More recently, interconnection policy has also been seen as a means of promoting competition.[8] Today, however, the public switched network has become a network of networks. As a result, interconnection's importance is no longer simply as a mechanism for transferring subsidies from certain carriers (or end users) to others. If the national economy is to continue to grow and prosper, it is increasingly important that interconnection be economically efficient. We therefore propose to redirect the focus of interconnection policy to inter-carrier compensation.

6. In the past, legislatures and regulators have shaped interconnection regimes to further a variety of policy goals. Universal service, the cross-subsidization of high cost users by low cost users,[9] was typically the driving policy consideration.[10] With the Telecommunications Act of 1996, Congress fundamentally altered this landscape. Regulated monopolies were to be supplanted by competitive markets, and cross-subsidization was to be replaced by explicit, "specific, predictable, and sufficient ... mechanisms to preserve and advance universal service."[11] Universal service considerations are no longer to dominate interconnection policy.

7. We assert that competitive neutrality and inter-carrier economic efficiency should now become the primary interconnection policy consideration. There exists an economically efficient, competitively neutral solution if the problem is formulated in terms of inter-carrier

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[8] Interconnection can be viewed as the means by which nascent competitive networks obtain vital inputs from dominant, incumbent networks. *See generally In re* Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, *Report and Order*, 11 FCC Rcd. 15,499, 16,012-13 (1996) (Local Competition Order), *rev'd in part on other grounds*, Iowa Utilities Board v. FCC, 120 F.3d 753 (8th Cir. 1997), *rev'd*, AT&T v. Iowa Utilities Board, 119 S. Ct. 721, 733, 738 (1999).

[9] The economics literature generally does not address this type of cross-subsidization. It focuses, rather, on "Ramsey pricing," which seeks to minimize the inefficiency caused by recovering common costs through prices above marginal cost. The Ramsey solution raises prices most on those customers who have low demand elasticity. For a typical application, see Laffont and Tirole, fn 2 *supra.*

[10] Much of the economics literature of interconnection expresses this universal service policy as correcting a network externality. That is, all users benefit when another user is added to the network, because they all have access to the new user. The potential new user, however, compares the price she is required to pay only to her private benefits, ignoring the "external" benefits to other users. This is the theoretical basis for advocating a subsidy that lowers the price in order to correct for the externality. For typical treatments, see Robert D. Willig, , fn 2 *supra*, and Laffont and Tirole, fn 2 *supra*.

[11] Codified at 47 USC 254(b)(5).

compensation.[12] The economic efficiency of inter-carrier compensation affects both the structure of the industry and, more importantly, the contribution the telecommunications sector makes to the nation's economic growth and productivity. Because inefficiency in this increasingly important sector can substantially degrade overall national output, interconnection policy should now focus on inter-carrier efficiency.

8. An alternative way of stating this last point is that competitive neutrality has become increasingly important in interconnection. Current interconnection rules have distorted production and output in telecommunications. Rates that diverge greatly from true economic costs, and rate *structures* that diverge from true cost structures, have resulted in inefficient production and behavior that is rational only because of artificial rules.[13] The industry has reshaped itself extensively to respond to artificial incentives that are often an unintended consequence of artificial rules.[14] This often diverts traffic from the public switched telephone network onto such alternatives as private lines, competitive access providers, and, perhaps next, Internet telephony. Regulators and parties have expended much energy in erecting artificial boundaries to maintain artificial distinctions and artificial prices. The market relentlessly undermines these regulatory walls,[15] particularly when inconsistent rules encourage parties to adopt avoidance strategies.[16] The regulatory walls eventually crumble, but in the meantime efficiency suffers. We may have reached the point at which telecommunications has become so important that our society can no longer afford such inefficient policies. It may be time for a competitively neutral interconnection rule that does not distort choices among technologies or among firms.

9. Focusing on inter-carrier compensation enables us to avoid two serious stumbling

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[12] As a bonus, this solution eliminates the danger of a dominant LEC extending its market power to monopolize interconnected markets. This is a major concern in the literature, and a very difficult problem under the access charge interconnection regime. See, e.g., Gerald W. Brock, "Interconnection and Mutual Compensation with Partial Competition," in Brock (1995), fn 4 *supra*; Laffont and Tirole, fn 2 *supra,* especially chapter 5.

[13] For illustrations see the background and discussion sections of *Access Charge Reform First Report & Order*, FCC 97-158.

[14] Perhaps the most vivid current example is the phenomenal growth of CLECs specializing in terminating ISP-bound traffic. See comments submitted in *In the Matter of Inter-Carrier Compensation for ISP-Bound Traffic*, CC Docket No. 99-68 and CC Docket No. 96-68.

[15] Robert Frost may have dabbled in economics on the side. See *Mending Walls*, reprinted at http://www.english.upenn.edu/~afilreis/88/frost-mending.html

[16] This process used to be called "bypass," meaning that a customer avoids paying an above-cost subsidy by finding an alternative means of interconnecting. The currently more fashionable term is "arbitrage," which encompasses more broadly numerous methods of exploiting differences in regulation among alternative services. A current example is the concern of many that advances in "Internet telephony" will encourage callers to avoid the entire "access" regime.

blocks. The first is that the traditional end user focus requires viewing inter-carrier calls (local or long distance) as services among many others that carriers market to end users. This makes most network costs, particularly loop costs, common costs to be allocated among these various services. Only markets can make such an allocation correctly. Regulators cannot possess the requisite specific knowledge.[17] The problem is intensified severely by the institutional rule that the calling party's network pays the entire cost of the call. Because this cost includes an allocation of common costs, the calling party's network ends up paying a share of the common costs of the called party's network. There is no perfect solution to these cost allocation problems, largely because regulators cannot know how benefits are distributed between the parties. That is, regulators cannot see individuals' demand functions. Any allocation a regulator can make is arbitrary (in the economic sense), yet even a small allocation error can produce massive distortions.[18]

10. The second stumbling block we avoid is that, under current institutional arrangements, end users have no direct control over access arrangements. Under the access charge regime, interexchange carriers (IXCs) must purchase access from local exchange carriers (LECs) on both the originating and terminating end of calls. By law and FCC interpretation,[19] IXCs must average the access charges they pay across all LECs, so that IXC customers pay the same rate whether they call to (or from) a high cost or a low cost LEC. IXCs are not permitted to pass through the access charges incurred on a particular call to the end user who makes that call.[20] Thus, even if an omniscient regulator existed who could discern the correct (i.e., socially efficient, incorporating all externality effects) inter-carrier cost allocations, these would not necessarily result in correct end user rates. The parties to a call are not empowered, under current arrangements, to choose the lowest cost means of completing a call of the quality and other characteristics they prefer. Therefore even correct inter-carrier cost assignments cannot assure efficient outcomes under current arrangements.

11. By focusing on inter-carrier compensation, we avoid these two inter-related problems entirely. We will show that the efficient allocation of interconnection costs between carriers is independent of how the calling and called parties bear the cost of a call. Nor does the balance of traffic between networks affect the efficient allocation of interconnection costs. It does

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[17] Even if they could gather the data, it would be out of date before they could assemble it. The genius of markets is their ability to make rapid, decentralized decisions that are efficient. See Hayek, fn 5 *supra*.

[18] The recent rapid growth in ISP minutes subject to reciprocal compensation agreements between incumbent LECs and competitive LECs is a compelling illustration of the result of a "small" error in setting compensation rates and structure.

[19] See 47 USC 254(g) and *Implementation of Section 254(g) of the Communications Act of 1934, as amended*, CC Docket No. 96-61 (FCC 96-331).

[20] In effect, such policies give every LEC a monopoly over access to and from its end users. *See LEC Pricing Flexibility Order and NPRM*, 14 FCC Rcd at 14316-17, para. 186.

not matter which network's subscriber caused a call by initiating it.[21] The carriers' retail rate structures, the ways they recover their costs from their end users, are not our focus.[22] We are concerned here with inter-carrier compensation rather than end user charges.

12. Brock (1995) makes the important point that the FCC's 1980 *Computer II* decision to deregulate customer premises equipment (CPE) was equivalent to mandating interconnection with customer-owned CPE and setting a zero interconnection rate for CPE. That is, local carriers could no longer charge for or control end users' purchase or use of CPE that met FCC technical standards. Prior to 1980, CPE had been a profitable venue for LEC price discrimination. LECs priced CPE usage as many discrete services. LECs could, and did, charge usage fees for every jack and every piece of equipment the customer wished to attach. The resulting common cost allocation problems were insoluble and pricing was based primarily on marketing estimates of demand elasticities for particular services.[23] The *Computer II* decision gave customers complete control of (and responsibility for) the wiring and equipment on their side of the network interface device (NID). In a somewhat analogous manner, we are suggesting that, just as CPE was separated from local service, inter-network interconnection can also be separated from local service in a manner that empowers end users.

13. It is difficult to overestimate the impact of *Computer II*'s decision to give customers the right to purchase CPE outright, rather than only to buy discrete CPE services from the LEC. We will not attempt to prove this assertion here, but we believe that the recent development of the Internet, and of much of Information Technology, would not have happened if CPE (for example, modems) were still marketed only by LECs. The blossoming of the CPE market into a highly competitive industry offering a wide variety of choice at low cost and rapid technological advances, and enabling previously unknown possibilities such as the increasingly numerous Internet services, is arguably a direct consequence of the deregulation of CPE.

14. We are suggesting that, in a manner similar to CPE, interconnection can be separated from local network services. At present, LECs retain access rights to their customers lines. They sell discrete access services to IXCs and other interconnecting carriers, who in turn sell individual calls to individuals. Instead of this arrangement, subscribers could directly purchase unlimited access to their own lines. Although this paper does not address the manner in which carriers retail their services, we do not exclude any particular arrangements. Our point is

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[21] In fact, the entire concept of the "directionality" of a call is rapidly becoming highly ambiguous, if not entirely meaningless. In international telephony, for example, the prevalence of arrangements such as "call-back plans" make it very difficult to identify "true" causation. Similarly, what is the direction of causation when a person returns a call in response to an answering machine message (or an E-mail)? This point is discussed in Degraba, fn 4 *supra*. For an Internet-related analysis, see Michael Kende, "The Digital Handshake: Connecting Internet Backbones," FCC Office of Plans and Policy Working Paper No. 32, September, 2000, p. 36ff. http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp32.pdf.

[22] We do address below an end user pricing problem related to interconnection with a dominant LEC.

[23] This is discussed in considerably greater detail in Brock (1994), fn 7 *supra*, Chapter Six.

that the best way to achieve efficiency may be first to "get inter-carrier compensation right,"[24] then to address the end user market separately.

15. Getting inter-carrier compensation right does not guarantee that end user charges will also be right, but it is a major step in that direction. Interconnection policy alone cannot cure underlying problems, such as possible dominance in local exchange markets,[25] but it can limit the harm generated by such dominance and thus contribute toward achieving solutions. Efficient interconnection policy can prevent a dominant carrier from using its control over interconnection to extend its market power to other markets, to leverage its market power to extract monopoly rents from interconnectors, or to erect artificial barriers to competitive entry.[26] That is, interconnection policy can restrict a dominant LEC to exploiting only its own customers. If a dominant carrier does try to exploit its own customers, the chances that a competitor can contest the market are improved. Regulators may wish to influence a dominant carrier's end user charges, but interconnection policy is not the correct tool for this purpose. By focusing exclusively on inter-carrier compensation here, we assert that the first step in getting end user charges right is to achieve efficient inter-carrier compensation, and that this is the proper focus of interconnection policy.

III. TWO CRITERIA FOR INTERCONNECTION REGIMES

16. As long as there are dominant local networks, it may be necessary to mandate and regulate interconnection. A dominant network may be able to disadvantage a competitor by either of two basic strategies. It may simply refuse interconnection and thereby force subscribers of other networks to subscribe to it in order to connect to its subscribers.[27] Or it may impose (discriminatory) charges on calls to or from subscribers of other networks, thereby inducing these customers to join its network or taxing, in the economic sense, the other networks.[28] Neither of these strategies could be effective, and no network would have an incentive to refuse interconnection,[29] if no single network held a commanding market share, but they become

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[24] The term "right," as used in this paper, should be understood as shorthand for socially efficient, that is, economically efficient taking into account any external costs or benefits.

[25] Other analysts have also noted this problem. "The twin objecives of allocative and productive efficiency cannot both be attained by the single instrument of the access price, so the aim is to achieve the optimal tradeoff." Mark Armstrong and John Vickers, "The Access Pricing Problem with Deregulation: a Note," *The Journal of Industrial Economics*, XLVI, March 1998, p. 116.

[26] Gerald W. Brock, "Price Structure Issues in Interconnection Fees," in Brock (1995), fn 4 *supra.*

[27] Brock (1994), fn 7 *supra,* discusses how AT&T successfully used this strategy in the early 1900s to build a monopoly.

[28] See Brock (1995), fn 4 *supra,* for an extensive discussion of these problems, particularly in an access charge regime.

[29] Kende (2000), fn 21 *supra,* discusses these incentives in the context of a competitive market, i.e. the Internet.

increasingly attractive as the largest network approaches market dominance. In the presence of a dominant carrier, a regulatory remedy may be necessary.

17. If a regulatory remedy is necessary, it should minimize the extent of regulatory intervention. Absent regulation, a dominant network may be able to impose crippling disadvantages on potential competitors. The result may be exploitation of customers and potential competitors as well as inefficiencies that inflict significant net losses on society. But will a regulatory remedy do more good than harm? The problem is that regulation itself can also impose significant costs.[30] This is particularly problematic when regulators "get it wrong," an outcome which is hardly unprecedented and the more likely the more information is required to "get it right." An ideal solution, therefore, should minimize the information regulators need.

18. So we propose two criteria by which to judge potential mandatory interconnection regimes. Do they result in economically efficient inter-carrier compensation? And are regulators likely to get it right? The first criterion means that the correct pricing signals are sent to networks making investment and make/buy decisions, and thus potentially also to consumers making subscription decisions.[31] The second criterion means that regulators do not need many facts or much data to administer the regime. Ideally, regulators could limit themselves to stating fairly simple principles or rules and allow the parties to negotiate efficient solutions suited to their particular circumstances. In such a regime, disputes would be resolved primarily through ordinary commercial procedures such as negotiation and arbitration.[32] We propose that an interconnection regime that meets these two criteria, efficiency and simplicity, would permit an efficient and competitive telecommunications system to develop and enable it to adapt rapidly and smoothly to changing technologies and market conditions.

19. In proposing these two criteria, we should note that our goal is relatively modest.

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[30] Among these are litigation expense, delay, uncertainty, opportunities for "rent-seeking" behavior by interested parties, and the real possibility of error, even assuming regulators are both highly intelligent and benevolent.

[31] Competition forces carriers to price according to their costs and cost structure. See Gerald W. Brock, "Price Structure Issues in Interconnection Fees," in Brock (1995), fn 4 *supra,* illustrates. If a carrier is market dominant, of course, it may not pass correct pricing signals to its customers. As discussed above, interconnection policy alone cannot cure underlying market structure problems such as dominance, but it can be an important step toward resolving such problems. An inefficient interconnection policy, in contrast, virtually guarantees that customers will face incorrect pricing.

[32] The Coase Theorem states that parties will negotiate efficient solutions to rights allocation problems, so long as the rules are clearly stated and transactions costs are low. Coase's Theorem was foreshadowed in Ronald H. Coase, "The Federal Communications Commission," *Journal of Law and Economics*, v.2 (1959), pp. 1-40, and then made explicit in his "The Problem of Social Cost ," *Journal of Law and Economics* v. 3, no. 1 (1960), pp. 1-44. Coase won the Nobel Prize in Economics in 1991 "for his discovery and clarification of the significance of transaction costs and property rights for the institutional structure and functioning of the economy." [Press release of The Royal Swedish Academy of Sciences, October 15, 1991, at http://www.nobel.se/economics/laureates/1991/press.html .]

We do not seek an interconnection regime that will resolve all the problems of telecommunications. It would be a significant improvement to discover one that, unlike the current regimes, does not add new or compound old problems. We do assert, however, that inter-carrier and retail rate structures can be addressed separately, just as CPE problems were resolved by treating CPE separately. In fact, we believe these problems can be solved only if inter-carrier and retail issues are addressed separately.

IV. EFFICIENT INTERCONNECTION RULES IN A SIMPLIFIED NETWORK

20. Real world networks are by nature so complex that it is very difficult to analyze them. Economists have always developed their principles by abstracting from real world complexities to capture essential features, and we resort to that technique here. We begin with a simplified, highly abstract representation of a network to demonstrate the principles of economically efficient interconnection. In the text, we attempt to develop these principles through simple, graphical illustrations employing a stylized linear network. Footnotes present a more general mathematical derivation. In a later section, we derive the same principles mathematically for each of two other fundamental types of networks.[33] Although we do not attempt to prove these results for the completely general case, real networks can be represented reasonably well as a composite of these three fundamental building blocks. We therefore believe the principles apply to the more complex forms.

21. We make a number of simplifying assumptions in order to clarify the exposition. Later we will discuss the extent to which we can generalize these insights when some of these assumptions are relaxed. For now, our networks ignore scale economies, trunking efficiencies, and the many other engineering considerations that shape any real network. We thus abstract from the particular technology used to solve the problem of connecting any group of customers. We focus instead on the fundamental, underlying facilities requirements faced by each network in serving its subscribers. We assume that each network has access to the same technology set and employs brilliant engineers who select the most cost-effective means of provisioning the underlying facilities requirements. But we are not concerned with how the engineers work their magic, only with the abstract, underlying facilities requirements.

A. A simplified measure of facilities: *urlinks*

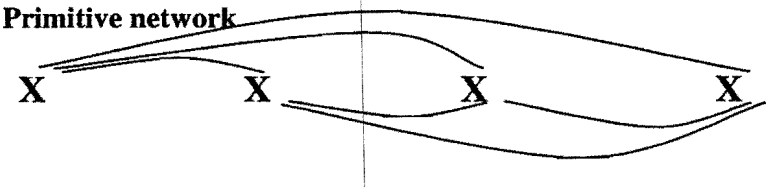
22. Let us begin by imagining a small network with four identical subscribers. We want to determine what facilities are necessary to meet the following two requirements: First, any two subscribers to the network should be able to connect with each other. Second, there should be no call blocking. This means that any subscriber can always complete a call to any other subscriber who is not already engaged in a conversation. The call will not be blocked by

[33] In addition to the linear network, we examine a mesh network and a fiber optic ring connecting central offices of any configuration.

inadequate facilities.[34] Put differently, the network has sufficient facilities to enable all possible simultaneous conversations to take place.

23. The most primitive network imaginable would meet our two requirements simply by using a separate line to connect each pair of subscribers. With four subscribers, each depicted by an X, we would need six lines, as shown in Figure 1. Note that this network consists entirely of lines and has no switching capability at all. For five subscribers, we would need ten lines, for six we would need 15. In general, for n subscribers, this type of network requires $(n^2-n)/2$ lines.

Figure 1: Primitive network



24. We use this facilities requirement for this primitive network as an abstract measure of required facilities. Engineers, of course, do not construct real networks by stringing a line between each pair of subscribers. As soon as n gets very large, the number of links required becomes astronomical (and subscribers would find it annoying to have n-1 separate lines).[35] Engineers, therefore, use various technological devices to reduce costs.[36] One basic method is to substitute switching capabilities for some of the links. Switches, multiplexers, and other line concentration devices may provide these substitutes for links. We are not concerned with precisely how the engineers provision the network. Regardless of the particular combination of links and switching actually used, we can think of the basic facilities requirement as a combination of links and switching that is equivalent to $(n^2-n)/2$ links for a network of n subscribers. We coin the term ***urlink*** to indicate the facilities required to enable one direct connection between one pair of subscribers,[37] noting that urlinks may be supplied by various

[34] We relax this "non-blocking" assumption later. We will also relax the assumption that the "subscribers" represent individuals rather than, say, central offices.

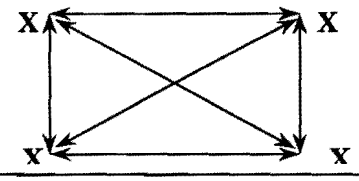
[35] The very earliest telephone service seems to have taken this form, with subscribers renting telephones and providing their own lines directly to those individuals they wanted to call. The first switching (exchange) services began in 1878, after the number of subscribers had grown to the point that direct connections were no longer efficient. See Brock (1994), fn 7 *supra,* p. 63.

[36] These devices also improve reliability and enable other features such as advanced intelligent network services, for example Call Waiting or Caller ID, but we want to focus on basic interconnection in order to keep this simple. These other features have little or nothing to do with interconnection, because they are provided primarily within a single network.

[37] The word urlink is much shorter than "underlying link" or "link equivalent,"which is its meaning. The prefix *ur-* in the Germanic languages suggests the concepts of original, underlying, or primitive. The term *urlink* also sounds like the engineering term *erlang*, a measure of the circuit capacity required to meet expected demand. The concept of an urlink is similar, but not quite identical, to an erlang.

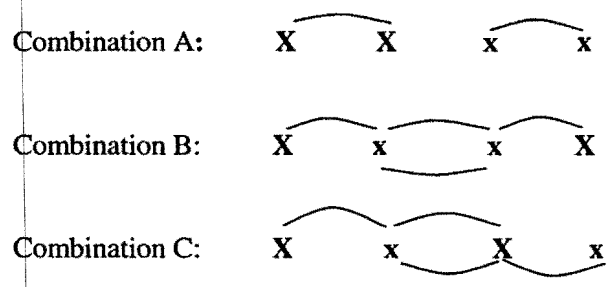
combinations of links and switching. Thus, we can say a network of four subscribers has an underlying facilities requirement of six urlinks. A network of five subscribers requires ten urlinks, and a network of n subscribers requires $(n^2-n)/2$ urlinks.The mesh network is a basic network form similar to our primitive network, in that it uses the same number of lines; but it adds a switch at each node. The mesh network provides added reliability because there are multiple paths between each pair of subscribers. If one link fails, a call can be routed over alternative links. The mesh also requires $(n^2-n)/2$ links. We extend our interconnection principles to mesh networks later, but base our initial discussion on the even simpler linear network form, because a mesh becomes very difficult to depict graphically as n increases.

Figure 2: Mesh network



25. For our graphical depictions in the text, we use a linear network. To determine the facilities required, we write down all the possible simultaneous two-party conversations. We use a long dash to represent a unit of transport *and related facilities* that we will again call an urlink.[38] Using upper and lower case to distinguish between calls, there are three possibilities for two simultaneous 2-party conversations, as shown in Figure 3.

Figure 3: Possible conversations among 4 parties



26. In words, Combination A needs only two urlinks since there is only a left side and right side conversation. The remaining possible combinations need these plus two in the center, since both the conversations cross the center of the network. In Combination B, the center parties (x-x) require one urlink and the outside parties (X–X) require three. In Combination C, each conversation requires two urlinks. We can denote the facilities needed for our four-party network to meet our two requirements as in Figure 4.

27. In words, a network of four parties (subscribers) can have a maximum of 2 simultaneous two-party conversations (the number of dashes in the center) and requires 4 urlinks (the sum of all the

Figure 4: Facilities required for a 4-party network

X — X = X — X

[38] We use this term here as shorthand to represent the facilities (link and switching) needed to route one conversation between two adjacent subscribers. The astute reader will soon note that for linear networks we are using a slightly different definition of urlink that now includes some switching capabilities, enough to route calls. We think it less confusing to recycle the term than to invent another, and we use the term only for counting basic facilities requirements, not for comparisons between different network topographies.

dashes) to allow every possible two-party conversation to take place.

28. This diagram is a deliberate abstraction that does not specify the network architecture or technology that is used to meet the requirements that any two parties can connect and that there is no call blocking. In the real world, a network could meet these requirements with a ring, star, mesh or any other imaginable architecture; wireline or wireless links; and circuit or packet transmission. We are also abstracting from cost-saving techniques that real networks use to economize on links.[39] We ignore possible scale economies or trunking efficiencies and assume initially that the network is engineered for zero call blocking. Finally, this simple network does not have any redundant links to improve reliability.[40] In other words, we are focusing on the raw capacity required and abstracting from engineering techniques used to provision this raw capacity (urlinks) economically.

29. We can generalize this depiction to any number of parties. For a linear network of n subscribers, the maximum number of simultaneous two-party conversations is n/2. (Logically, each party can engage in only one conversation at a time.) To ensure that any combination of n/2 conversations can occur simultaneously[41] requires $(n/2)^2$ links.[42]

B. Adding subscribers in a linear network

30. We are now almost ready to explore interconnection between two networks; but first we need to consider what happens as additional parties subscribe. We make two more initial assumptions to simplify the analysis. Later we relax these. We assume all parties are identical (and choose their initial network randomly). We also assume for now that each urlink has the same cost.

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[39] One such technique is engineering to accept more than zero call blocking. We address this possibility below, but for now maintain the zero blocking assumption.

[40] Mesh and ring networks, of course, have built-in redundancy for improved reliability.

[41] That is, a call attempt might fail because the called party's line is already busy, but not because of circuit blockage.

[42] A mathematical proof is fairly simple. In the "worst case," which requires the most links, the parties in the center of the network call each other, then the next nearest pair, continuing until the pair at the extreme ends of the network call each other. The "center" call requires one link, the next requires three, and the *i*th call requires (2*i*-1) links. For a network of n subscribers, in which the maximum number of possible calls is n/2, the "extreme" call requires 2(n/2) –1 = n-1 links. The sum of all the required links is

$$\sum_{i=1}^{n/2}(2i-1) = 2\sum_{i=1}^{n/2} i - \frac{n}{2} = 2\left[\frac{\left(\frac{n}{2}\right)^2 + \left(\frac{n}{2}\right)}{2}\right] - \frac{n}{2} = \left(\frac{n}{2}\right)^2.$$

31. If two more parties subscribe to the X network, then a six-party network in our notation would be diagrammed as in Figure 5. Three simultaneous calls are possible, so three urlinks are needed across the center of the network. This network meets our two requirements, that any two parties can connect and that there is no call blocking.

Figure 5: Six party network

X— X=X≡X= X— X

32. Notice that the original four-party network had an average of one link per party, but adding the two new parties requires five more links. The parties benefit equally from the network (in the sense that each can call any of the others), so instead of making the new parties pay for all the additional links, every subscriber pays a proportionate share of the additional links.[43] The average number of links per party rises from 4/4 = 1 per subscriber to 9/6 = 1.5 per subscriber. As more subscribers are added, the benefits of the network increase, but the number of links needed per subscriber also rises.[44] The network will add new parties until there are no more potential subscribers or the price (average cost) rises to the point at which some subscribers begin dropping off the network.

C. Assigning the incremental cost of interconnection

33. What is the incremental cost of interconnection? Suppose the two parties who joined Network X in Figure 5 had instead already subscribed to another network, Network O? Comparing Figures 6a and 6b, we see that to meet our two requirements, interconnection requires four additional links (dotted in Figure 6b).[45] This is the incremental cost of interconnection.

Figure 6: Interconnection of a 4-party network with 2-party network

6a: X— X=X—X O—O

6b: X— X=X⁙ X⁙ O—O

34. It is worth noting that the interconnected network of Figure 6b has precisely the same facilities requirements as the six party network of Figure 5. In this case, interconnection is

[43] The network is unable to discriminate among subscribers, because any subscriber could drop from or join the network. Thus each is potentially a "marginal" subscriber.

[44] More generally, because the number of links is $(n/2)^2 = n^2/4$, the average number of links per subscriber is always $n^2/4/n = n/4$. As the number of subscribers increases, each subscriber benefits from being able to call more people, but the "raw" capacity needed per subscriber rises. We are abstracting from the engineering techniques that can offset this diseconomy of scale in real networks.

[45] More generally, if a linear network with a subscribers interconnects with a linear network of b subscribers, the number of incremental links required is $ab/2$. Recall that the total links needed to meet our two requirements (enabling all possible connections and the maximum possible number of simultaneous conversations) is $n^2/4$. If the size of the interconnected network is $n = a + b$, the total links requirement is $(a + b)^2/4 = (a^2 + 2ab + b^2)/4$. Before interconnection, the two separate networks needed $a^2/4$ and $b^2/4$ respectively. Thus the number of incremental links required for interconnection is the difference, $2ab/4$ or $ab/2$.

precisely equivalent to subscription. Ideally, our rule for allocating responsibility for the incremental interconnection links should not give parties an incentive to masquerade as networks[46] or as subscribers, or to rearrange calling patterns,[47] in order to exploit the rules. That is, an ideal rule will not distort decisions.

35. How should responsibility for these four incremental links be assigned? Suppose each network were assigned a share proportional to its number of subscribers. The X network would pay for two-thirds of the four incremental links (2.67 links), and would have a new average of (6.67)/4= 1.67 links per subscriber. The O network would be responsible for 1.33 additional links, raising its average to 2.33/2 = 1.17 links per subscriber. However, a subscriber to either network receives precisely the same benefits: non-blocking access to the same subscriber list. Therefore, subscribers to the X network would be better off if they switched to the O network. As the O network grew, its links per subscriber would increase (and losing subscribers would reduce links per subscriber on the X network). The artificial price wedge created by this interconnection cost assignment would only disappear when the networks became equal in size. Eventually, subscribers would migrate until each network would have 1.5 links per subscriber.

36. The discussion in the previous paragraph suggests a surprising result, that dissimilar-sized networks must share equally the incremental cost of the facilities required to interconnect them. Under this "Split the Incremental Cost of Interconnection" rule, the O network, with only two subscribers, must pay for the same number of incremental links as the X network, even though X has twice as many subscribers. This means, of course, that the cost *increase* faced by O subscribers is greater (from 0.5 to 1.5 links per customer) than that faced by X subscribers (from 1.0 to 1.5 links per customer). This seems reasonable, because the O customers are gaining access to four additional parties, while the X subscribers are gaining access to only two more parties.[48] Following this rule yields the same number of links per subscriber for each network.[49] That is, the raw capacity burden per subscriber is the same on

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[46] A difficult problem in access regimes, and even in some forms of bill and keep proposals, is that, when traffic is primarily "inbound," an end user may have an incentive to claim it is a network in order to avoid bearing transport costs. If traffic is primarily "outbound," a network may wish to claim it is an end user for the same purpose. See Degraba, fn 4 *supra*.

[47] Networks or users can often arrange their traffic flow to make it appear mainly inbound when doing so is advantageous. See fn 21 above.

[48] A bit of simple algebra shows that, for linear networks, the average cost increase for subscribers to one interconnecting network is always equal to ¼ link per subscriber on the other network. Splitting the incremental cost of interconnection equally, each network would be responsible for an additional $ab/4$ links (half the total increment of $ab/2$). For network X, the average cost rises by $ab/4a = b/4$. Similarly, the average cost on O rises by $ab/4b = a/4$ links per subscriber.

[49] This result also generalizes to interconnection between two linear networks of any size. Recall from the previous footnote that the number of incremental links necessitated by interconnection of a network of a subscribers with a network of b subscribers is $ab/2$. If this increment is assigned equally to the two

each network. Since full, non-blocking interconnection allows subscribers to either network precisely the same benefits, failure to balance links per subscriber does not produce a stable outcome. The burdened network will lose subscribers and the favored network will gain subscribers until the burden is equalized.

37. When we compare Figures 6a and 6b we can see that interconnection does not increase the maximum number of simultaneous calls (the number of links in the center of the combined networks). Prior to interconnection, three simultaneous calls are possible: two on the (four party) X network and one on the (two party) O network. The interconnected six-party XO network also accommodates three simultaneous calls. Thus interconnection only increases the number of parties it is possible to call, not the number of simultaneous calls. This point will prove significant later, when we drop the assumption of no call blocking.

38. Note that we have achieved this efficient allocation of costs between networks without any reference to how the calling and called parties bear the cost of a call, to which network caused a call by initiating it, or to the balance of traffic between networks. We thus avoid the intractable common cost allocation problems encountered in the traditional approach.

D. Networks should recover from their own subscribers all costs not incremental to interconnection: the "BASICS" rule

39. Our analysis suggests a second principle, that *only* the costs incremental to interconnection should be split. Therefore, all remaining network costs should be recovered from the network's own subscribers. In our example in Figure 6b, dividing the total links (9) equally between the networks would give the X network 4.5/4 = 1.125 links per subscriber. In contrast, the O network would have 4.5/2 = 2.25 links per subscriber.[50] Even if the networks were the same size, but dissimilar in cost, including the internal network costs would create an artificial cost difference. We consider this point more fully and distinguish more clearly between internal network costs and interconnection costs in the next section.

40. We can now combine our two principles to form a rule we will name "Bill Access to Subscribers, (Incremental) Interconnection Costs Split," or "**BASICS**." The second half of this acronym is the rule, developed in the previous section, that the costs incremental to

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networks, their respective *total* numbers of links will be $a^2/4 + ab/4$ and $b^2/4 + ab/4$. To obtain their average links per subscriber, we divide each network's total capacity by its number of subscribers. We obtain, respectively, $(a^2 + ab)/4a$ and $(b^2 + ab)/4b$. Each of these expressions reduces to $(a + b)/4$. Thus if the incremental links are split equally, each network ends up with the same average number of links per subscriber, regardless of their respective sizes. No other allocation of incremental links will produce this equality. This equality of links per subscriber also results if this rule is applied to mesh networks or to fiber optic rings (see Section [VI] below).

[50] More generally, because the previous footnote demonstrated that splitting incremental links equally produces equal average burdens regardless of the sizes of the separate networks, adding any additional costs would produce an unstable outcome.

interconnection should be split equally between the two interconnecting networks. The first half refers to the requirement that each network collect all remaining costs (those not incremental to interconnection) from its own subscribers. In particular, access rights to subscribers' lines are not sold to interconnecting networks on a per minute basis, as under current access rules. Instead, all access rights are sold directly to the subscribers themselves. We confess that our name for this rule is somewhat awkward, and freely admit that the name was crafted primarily for the sake of its acronym.

E. Interconnection among more than two networks

41. In the case of more than two networks, the BASICS rule would apply *seriatim*. That is, the initial interconnection forms an interconnected network. As additional networks join, each would do so on a BASICS basis. In each case, the network joining would bear half the incremental costs of the new interconnection. The networks previously interconnected would bear the remaining incremental costs, which would be distributed among these networks on a per subscriber basis. This allocation would produce the same results as above, and the result would be the same (an equal urlinks per subscriber burden) regardless of the order in which networks joined.

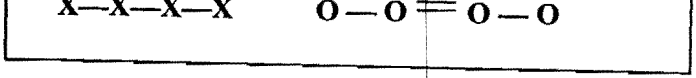
V. DISTINGUISHING COSTS INCREMENTAL TO INTERCONNECTION FROM INTRA-NETWORK COSTS: INTERCONNECTION OF LESS THAN FULLY PROVISIONED NETWORKS

42. If the BASICS Rule is to be implemented, it is essential to identify those costs that are incremental to interconnection *per se*. It is particularly important to distinguish costs incremental to *interconnection* from costs of improving service quality *within* a network. An especially difficult issue is distinguishing costs incremental to interconnection from those incremental to increased traffic volume. We believe the correct approach to resolving this problem is to recognize that the level of call blocking that subscribers experience is a key element of service quality. Increased traffic volume increases call blocking unless the network is adequately provisioned to be non-blocking. In order to distinguish between costs incremental to interconnection and costs incremental to intra-network service quality, we must now drop our assumption that all networks are fully provisioned to be non-blocking.

A. Interconnection between networks of differing service quality levels

43. In Figure 7a, we show two networks that offer differing service quality levels. The X network offers a lower quality of service. It is not fully provisioned, having provided only one

Figure 7a: Network X is not fully provisioned

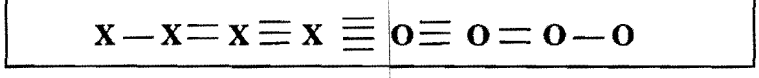


urlink across its center. As a result, call blocking will occur whenever more than one X

subscriber attempts a call across the X network's center. Network X is offering something loosely resembling old-fashioned party line service, serving four subscribers using only three urlinks at an average cost of ¾ urlink per subscriber. The O network, in contrast, is fully provisioned. O has an average cost of 1 urlink per subscriber and offers completely non-blocking service. In a competitive market, we can presume Network X's lower quality is offered at a lower price.[51]

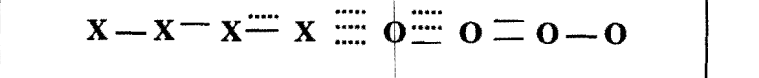
44. To see the incremental cost of interconnection in this case, it is helpful first to see what should *not* be included. In Figure 7b, the networks have interconnected *and* the X network (perhaps for competitive reasons) has added its missing link to become fully non-blocking. The total number of urlinks added is nine (and the maximum number of possible simultaneous calls across the centers of the networks has increased from three to four). If all nine added links were considered incremental to interconnection, then the X network would have 3 + 4.5 = 7.5 urlinks, or 1.875 per subscriber. The O network would have 4 + 4.5 = 8.5 urlinks, or 2.125 per subscriber. This cost assignment gives X an artificial advantage because one of its intra-network links is

Exhibit 7b. Fully provisioned interconnection of non-blocking networks



being included in the cost of interconnection. X can now offer the same calling list and the same quality of service as O, but at a lower price. O subscribers are paying a "tax"[52] of 0.125 urlinks in order to subsidize X subscribers. Recognizing that X added this second link across its center to upgrade its intra-network service quality, rather than for interconnection *per se*, eliminates this artificial advantage.

Figure 7c: Interconnection when X remains less than fully provisioned



Dotted lines represent links incremental to interconnection.

45. As a further illustration of this point, suppose the X and O networks want to maintain their differing grades of service. In this case, only six incremental links (dotted in Figure 7c) are needed to maintain the O network's non-blocking grade of service while not reducing blocking (upgrading service) between X network subscribers. The other two interconnection links in Figure 7b can never be needed as long as X has only one link across its own center, because there can never be enough XO traffic to require their use.

[51] If we relax our assumption that all subscribers are identical, this result could be a stable outcome in that Network X attracts those who are willing to accept lower quality service in return for a lower price.

[52] This term is used here not in its legal sense, but in the economic sense of a price above marginal cost.

46. Now we are ready to illustrate our point about distinguishing between interconnection and intra-network service quality. After interconnection in Figure 7c, the maximum number of possible simultaneous conversations possible between pairs of X network subscribers is unchanged. As before interconnection, only one conversation can cross X's center. Applying the BASICS Rule to the incremental links (there are six more urlinks than before interconnection in Figure 7a) assigns three more urlinks to X, for a total of six urlinks for four subscribers, or 1.5 urlinks per X subscriber. The four O subscribers now have 4 + 3 = 7 urlinks, or 1.75 per subscriber. Note that the O network again has more links per customer and a higher quality of service (zero intra-network call blocking) than the X network (where there is some blocking).[53] The point is that interconnection under the BASICS cost-assignment rule has not distorted the relationship between cost and service quality for the two networks.

47. Comparing Figures 7b and 7c also enables us to distinguish clearly between costs that are incremental to interconnection *per se* from those that are incremental to improving service quality *within* a network. In both cases, the O network is fully provisioned and will not experience any blocking whatsoever on O-O calls or on any calls that arrive from X. In 7c, however, the X network remains less than fully provisioned and does experience some internal blocking. Some calls from O subscribers to X subscribers may also be blocked, but blocking can only occur on calls to or from X subscribers. Costs of upgrading service quality for these X subscribers are not incremental to interconnection *per se*.

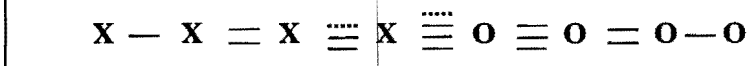
48. Figure 7c also helps highlight the distinction between interconnection and intra-network quality of service. Interconnection increases the number of parties that each subscriber is able to call. It does not directly affect possible call blocking *within* the interconnecting networks. Thus costs incurred to reduce call blocking that occurs entirely on one network are not costs incremental to interconnection, and would not be split between the networks. We are thus distinguishing between costs incremental to *traffic* and costs incremental to *interconnection*. We believe this analysis demonstrates that to achieve efficiency the former should be assigned to the separate networks and only the latter should be split (equally) between the two interconnecting networks.

49. Because this is such an important and potentially controversial point, let us illustrate the distinction between costs incremental to interconnection and those incremental to intra-network service quality from yet another perspective. It is possible that after interconnection X subscribers may wish to make more calls than before, because they can now reach more

[53] In fact, the average cost (price) difference is 0.25 urlinks, precisely as before interconnection. This can be understood as the premium O subscribers pay for a higher (non-blocking) quality of service. The fact that the difference is precisely unchanged depends on the assumption that the two networks are of equal size. In the more general case, the magnitude of the difference might change, but the direction would not (the more expensive network would remain more expensive, thus a quality premium would remain).

parties.[54] If this increased demand causes X to provision its internal links fully (by adding the second link across its own center), the total number of possible calls across X's center increases from one to two. Thus Network X becomes fully non-blocking. If it adds this second center-link, Network X has the same cost (7/4 = 1.75 links per subscriber) and the same quality of service as O. The added link may be seen as incremental to *traffic volume*, or to service quality within X, but it is *not incremental to interconnection per se*. We believe this is a highly significant distinction that is essential to getting interconnection policy right, that is, to finding an efficient rule for assigning interconnection costs.

Figure 7d: Making interconnection non-blocking once both networks are non-blocking



After X adds a second link across its own center, the two dotted links can be added to Figure 7c to make interconnection completely non-blocking.

50. Notice, furthermore, that once X has fully provisioned its internal network, the networks may now want to add two more interconnection links (dotted in Figure 7d). These two links would have been redundant without the second link across X's center, but they now improve quality of service (reduce blocking) on inter-network calls. Note also that these two links are needed only to preclude blocking of inter-network, not intra-network, calls. They can never be needed for intra-network calls.[55] Under BASICS each network would pay for half these additional inter-network links, and each would end up with 8/4 = 2.0 urlinks per subscriber. Thus, once both individual networks are internally non-blocking, fully non-blocking interconnection means adding a total of eight links (the six dotted in Figure 7c plus the two dotted in 7d). These eight links are incremental to interconnection, but the second link across the center of X is not incremental to interconnection.

51. We should also note at this point that, although our diagrams do not make this obvious, the interconnection links differ from the internal links in that they are needed only to carry inter-network traffic. They can never be needed for intra-network traffic. More importantly, they are inter-office links rather than loops (links between end offices and end users). This distinction may be significant when networks use differing loop technologies. Inter-network links today, and almost all inter-office links, are likely to be optical fiber links.[56] If one or both of the individual networks uses a different technology, for example, wireless, its *internal* links may be more expensive. The analysis we have developed thus far suggests that only the

[54] That is, we would expect the demand for calls to be a function of, among other things, the number of parties who can be called.

[55] Recall that we are abstracting from designed redundancy in our simple network.

[56] Some "legacy" copper or microwave links have not yet been replaced.

costs of the (fiber) inter-network urlinks[57] should be split equally between the two networks.[58]

B. Does the BASICS Rule resolve quality of service externality problems?

52. Does a network's decision to offer a lower quality of service impose an externality on the interconnecting network? The answer, no, is already implicit in the discussion above comparing Figures 7b and 7c. This is such an important point, however, that it seems worthwhile to make it explicit. Figure 7c shows that any call blocking that results from under-provisioning links will occur on the network that under-provisions, not on the interconnecting network.

53. If we made some simple assumptions regarding calling preferences, we could calculate the expected call blockage suffered by subscribers to the degrading network and subscribers to the interconnecting network. Assuming that each subscriber is equally likely to try to call each other subscriber, we could show that the bulk of the call blockage would occur on the network that degrades its internal links.[59] The only blockage experienced by subscribers to the fully provisioning network is on inter-network calls to customers of the under-provisioned network. The network that under-provisions bears the main impact itself, and the other network is affected only on some inter-network calls.

C. Can Networks resolve the Network Externality under BASICS?

54. By focusing on inter-carrier compensation, we can also resolve serious externality problems and thus transform telecommunications markets into normal markets in the sense used

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[57] Recall that our urlinks include a bit of incremental switching capability. We believe this would amount only to a modest increase in switch memory (to accommodate larger look-up tables) and possibly a dash more processor. Our understanding is that rates for transport links (trunks) and entrance facilities include the switch rearrangements necessary to enable the switch to recognize and route calls to and from the links. In a dispute resolution, we would suggest that a regulator or arbitrator adopt the incremental-only costing approach that FCC applied in the Local Number Portability proceedings, which would explicitly reject any allocation to interconnection of the "common costs" of a switch. See In the Matter of Telephone Number Portability, Cost Classification Proceeding, CC Docket No. 95-116, In the Matter of Telephone Number Portability, *Third Report and Order*, 13 FCC Rcd 11701, 11740 (1998).

[58] We consider the case of differences in link costs in the next section.

[59] The algebra is reasonably straightforward, but somewhat tedious. That is, an economist with low opportunity costs could work it out on the back of a very large envelope, but few lawyers would be willing to follow it. These results do depend on making a strong assumption that expected call attempts are uniformly distributed. On the other hand, the most likely alternative to this assumption would be that subscribers are, if anything, somewhat more likely to call others on their own network. This is because networks are more likely than not to be formed initially among subscribers who share some community of interest (if only location). To the extent that intra-network calls are more prevalent, our results are strengthened.

by Brock,[60] that is, markets without externality problems. The current rules, in effect, create externalities, because buyers and sellers do not see the networks' actual costs, only averaged rates. If we can resolve these externalities, we share Brock's view that networks can successfully internalize the fundamental network externality that other subscribers also benefit when an additional party subscribes. The BASICS rule of splitting equally only those costs incremental to interconnection *per se*, internalizes those externalities caused by current institutional arrangements.

55. In less regulated telecommunications markets, such as for internet service provider (ISP) and wireless services, we frequently observe networks offering inducements to attract new subscribers. Because the network becomes more attractive as more subscribers sign up, we believe networks can successfully internalize the network externality, at least where regulatory restraints on pricing do not preclude this.

56. In unregulated communications markets, firms do use pricing strategies that seem to internalize the network externality. Newspapers and magazines, for example, face something similar to the network externality because their attractiveness to advertisers and even to other potential subscribers depends to a great extent on their number of subscribers. For this reason, newspapers often offer subscriptions at rates that appear to be below average cost and perhaps even below marginal cost, sometimes barely covering delivery cost.[61] This strategy seems to be profitable because it increases advertising revenues. Similarly, many ISPs offer below cost subscription or free E-mail service, apparently in order to increase sales of advertising. Web sites and broadcasters pursue a similar strategy of offering free information or entertainment in order to attract advertising revenues. These unregulated firms[62] appear to be using retail pricing strategies successfully to internalize externalities. Although we do not attempt to prove this formally, we believe networks may succeed in internalizing the network externality through similar strategies.

VI. CAN THESE RESULTS BE GENERALIZED?

A. Does BASICS work for networks of other than linear form?

57. We believe these results can be generalized, although we must offer an important caveat. In our analysis above, we abstracted from such engineering considerations as scale economies and trunking efficiencies. We believe this is a reasonable abstraction because, as noted above, we assume that each network has access to the same underlying technological possibility set and to equally skillful engineers. Although we express our results in terms of cost

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[60] That is, markets without externalities. Gerald W. Brock, "Interconnection and Mutual Compensation with Partial Competition," p. 10, in Brock (1995), fn 4 *supra.*

[61] "Introductory" rates for new subscribers are often even lower. In this case, however, the firm may hope to retain the new subscriber as a long term customer, a slightly different motivation.

[62] Broadcasters are, of course, regulated in several ways, but their pricing is generally unregulated.

per subscriber, it would be more accurate to say "urlink burden per subscriber," referring to our abstract measure of interoffice link or switching capacity. A more general expression of our results would not be that the BASICS rule equalizes per subscriber *cost*, but rather that it equalizes the raw, underlying per subscriber burden due to interconnection. Our point is that interconnection does not distort the underlying, pre-interconnection cost relationship. Each network enjoys whatever scale or scope economies its engineers can find, employs whatever technology it chooses, and faces the resulting costs. A BASICS rule simply does not distort whatever cost relationships would have existed without interconnection, and does not distort carrier decisions. In this sense, BASICS is a competitively neutral cost allocation rule.

58. The key mathematical relationship upon which our results above depend is that, for the simple networks we examined, splitting equally the incremental costs of interconnection yields the same cost per subscriber for each of the interconnecting networks. With the caveat noted above, we believe that if this relationship holds for other network forms, then our other results also follow.

59. The BASICS results do hold for mesh type networks. Unfortunately, a graphical depiction of a mesh of more than a very few subscribers or nodes exceeds our skill level. Fortunately, the algebra is no more complex than that for linear networks, so we can show this result algebraically.[63] The basic difference is that the number of urlinks required for a mesh network is $(n^2-n)/2$ (the standard formula for combinations of two in a population of n) rather than the $n^2/4$ of a linear network.

60. The BASICS rule also holds for a network composed of a fiber optic ring connecting central offices, if we make a simplifying assumption. It does not matter how the various central offices are configured, other than that each network should have the same average number of subscribers per central office. We address the reasonableness of this assumption below. Once again the algebra is fairly simple,[64] and the BASICS rule produces the same burden

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[63] Using the same variables and approach as for the linear network in footnotes [42ff] above, we find that the incremental urlinks required to combine a network of a subscribers with a network of b subscribers is, for mesh networks, ab. So each network would be responsible for half, $ab/2$. Network X starts with $(a^2-a)/2$ links and adds $ab/2$. Dividing by a subscribers produces an average urlink "cost" of $(a^2 - a - ab)/2a$, which reduces to $(a + b - 1)/2$. Similarly, Network O begins with $(b^2-b)/2$ urlinks and adds $ab/2$. Dividing by b subscribers produces $(b^2 - b + ab)/2b$. This reduces, again, to $(a + b - 1)/2$.

[64] Imagine a constellation of central offices connected by a fiber optic ring. The total number of subscribers (sum of all central offices) is n. The average size of a central office is s subscribers. In order to be non-blocking, the "width" of the ring has to be n (a ring has built-in redundancy for reliability). Thus the number of central offices is n/s. The number of urlinks needed to make up the ring is $(n)(n/s) = n^2/s$.

Now suppose two networks of central offices interconnect. The total numbers of subscribers on the networks are a and b, respectively. Assuming s is the same for each network, the networks begin with a^2/s and b^2/s links respectively. The incremental ring-links are the difference between the requirement before and after interconnection, or $(a+b)^2/s - a^2/s - b^2/s = 2ab/s$. If we split this number equally, each

(in urlinks per subscriber) for each network after interconnection.

61. Viewed with a reasonable degree of abstraction, almost any network configuration can be resolved into a combination of the linear, mesh and ring forms.[65] Although we do not attempt here a formal proof of this point,[66] we argue that one can make a strong intuitive case that our results can be extended to most if not all real world network configurations. We conclude tentatively that, arguing by analogy, the basic principles we have discovered here are robust. That is, the BASICS rule is administratively simple and produces an efficient assignment of interconnection costs between the two networks.

B. What if the subscribers are actually central offices?

62. The assumption immediately above for ring networks that both interconnectors have central offices of the same average size seems rather strong, but we believe it is not nearly so unreasonable as it may first appear. This point is worth exploring, because it applies to other network forms as well. Even our simple linear networks implicitly assume that, if the Xs and Os are actually central offices rather than individuals, they are of the same size.

63. We believe our equal average size assumption is reasonable because our analysis depends on viewing interconnection at the same level of line concentration. All our analyses take place at the same lowest common denominator, in the sense that we analyze a very large switch as a combination of smaller ones. That is, we view a large central office as equivalent to several smaller ones that are linked together. Thus a large central office requires internal links among its components. We think this is a network topology question for engineers to optimize, not a question of underlying urlink burden. The engineers determine the optimum combination of switching and links to meet the urlink requirement. We recognize that scale economies and network efficiencies occur, but we assume that each network does have access to equally brilliant engineers and to the same technology set. We are only concerned that each interconnecting network bears the same "urlink burden," that is, the same underlying raw capacity requirement

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network is responsible for ab/s additional urlinks. So the number of urlinks for the first network is now $a^2/s + ab/s$ and its average urlinks per subscriber is $(a^2 + ab)/as = (a + b)/s$. For the second network, the number of urlinks is now $b^2/s + ab/s$ and its average urlinks persubscriber is $(b^2 + ab)/bs$. This reduces again to $(a + b)/s$.

[65] Another common network form is the "star," in which there is one link (loop) from each subscriber to the central office. We view this simply as an engineering solution that provisions the basic, underlying urlink requirement by employing more switching and fewer links. All the switching is concentrated in the central office. Star networks have desirable efficiency properties under some circumstances, but their geographic size is limited by their need for longer links as the service area expands. As "constellations" of stars are linked into a larger network, the results resemble a linear, mesh or ring network, depending on just how they are linked.

[66] The problem is that, while we can represent urlink requirements for simple network types mathematically, we are not sure how to represent the requirements for a generalized network.

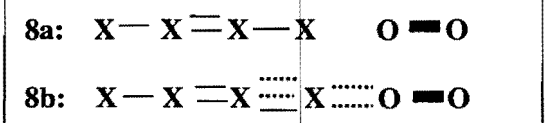
per subscriber, not with the manner in which its engineers provision this burden.

64. We could allow subscriber (i.e. central office) sizes to vary. The mathematical treatment would become much more complex. Urlinks would become erlangs, that is, we would have to take explicit account of circuit demands. The analysis would become much more complex, but we believe the essential results would not change. We do not, however, attempt to prove this assertion formally in the present paper.

C. What if the networks have differing link costs, or subscribers have differing preferences?

65. The case of differing link costs is the exception that proves the rule. Here, the BASICS rule will not produce equal urlink/subscriber burdens, but rather preserves the pre-interconnection relationship. It does not distort subscriber choices.

Figure 8: Interconnection of a 4-party network and a 2-party network with differing costs



The heavier O-O link costs ten times as much as an X-X link.

66. As a simple illustration, let us recall the interconnection example of Figure 6; but in Figure 8 let the heavy O-O link cost as much as 10 ordinary links. O offers premium service characteristics (perhaps mobility) at a premium price. Before interconnection, the average cost for Network X is 1.0 (urlinks per subscriber). O's average cost is 5.0 (one expensive link shared by two subscribers). Interconnection requires four incremental links, which are ordinary links.[67] After interconnection, each network is responsible for two (half of four) incremental links. X's average cost rises to (4 + 2)/4 or 1.5. O's rises to (10 + 2)/2, or 6.0. The pre-interconnection cost relationship remains: O offers a premium service at a higher price. The BASICS rule has not distorted this relationship.

67. It is useful to break down the costs in this illustration between intra-network and

[67] Recall that virtually all inter-network transport today is provisioned by optical fiber, regardless of the technology of the interconnecting networks. Even between two wireless networks, interconnection is generally via fiber links. Thus the costs that are purely incremental to interconnection are generally independent of the internal technologies of the interconnecting networks.

interconnection services. X subscribers pay[68] 1.0 urlink each for access to other X subscribers and 0.5 (0.25 x 2) for access to the two O subscribers. O subscribers pay 5.0 for premium access to other O subscribers and 1.0 (0.25 x 4) for access to the four X subscribers. Each X or O subscriber pays (in this example) ¼ urlink in interconnection costs for each additional party it can call as a result of interconnection. X subscribers do not pay any more or less for access to other X subscribers than before interconnection. The same is true for O subscribers. The point is that neither network subsidizes the other. BASICS does not distort subscriber choices.

68. In a world in which various types of networks are possible, it is important that each network recover its intra-network costs from its own subscribers. Not all subscribers have identical preferences regarding technology, service quality, additional features, price and other aspects of network offerings. A single package is not likely to be optimal for every individual subscriber. Some subscribers may place a premium on very high reliability while others may accept occasional blockage, reduced voice or data quality, or even occasional outages in exchange for a lower price. Likewise, some subscribers may be willing to pay for the benefits of mobility offered by certain technologies, while others may forego mobility in return for a lower price. Some subscribers may choose a lower monthly charge plus a usage charge, while others may prefer a higher monthly charge that includes unlimited usage. Splitting equally the costs that are purely incremental to interconnection and requiring each network to recover its intra-network costs from its own subscribers permits each network to offer retail packages and each subscriber to choose the combination of features and price that best suits her preferences without distortions caused by cross-subsidization.

VII. INTERCONNECTION WITH A DOMINANT CARRIER

69. Interconnection with a dominant carrier is the one case in which we need to discuss retail pricing arrangements in the present paper. Where there is no dominant carrier, we have argued that retail pricing can (and in fact must) be treated separately from interconnection, and that a regulator need not be concerned with the manner in which carriers structure their retail offerings. In such a case, competitive market forces will assure efficient results.[69] As discussed in Section III above, however, a dominant carrier may be able to exploit its market power by discriminating between on-network and off-network calls. Such discrimination might enable the dominant carrier either to deter competitive entry or to exploit a network in a related market. It may therefore be necessary to prevent a dominant carrier from engaging in such discrimination.

70. We believe the remedy for possible discrimination by a dominant LEC is to grant

[68] For convenience we assume here that the networks are pricing at average cost, even though it would be more accurate to say that the networks are bearing these per-subscriber burdens and recovering them in some unspecified manner.

[69] See Gerald W. Brock, "Price Structure Issues in Interconnection Fees," in Brock (1995), fn 4 *supra*; and *Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, First Report and Order, 85 FCC 2d 1, 31-35 (1980) (discussing reasons it is unnecessary to regulate the rates of non-dominant carriers).

interconnectors a right to non-discriminatory treatment within whatever local calling area the dominant LEC has established. An interconnecting LEC located within the dominant LEC's local calling area, upon fulfilling the BASICS requirement of splitting incremental costs of interconnection, would have the right to have its traffic treated on the same basis as the dominant LEC's own local traffic. That is, the dominant LEC could not discriminate between on-net and off-net calls within its local calling area.

71. Similarly, an out of area carrier (a LEC or an IXC) would be entitled to non-discriminatory treatment if it provides all the transport to (and from) a point within the local calling area of the dominant LEC plus the usual BASICS requirement of half the (local) incremental interconnection costs. If the out of area carrier bears these costs, a local dominant LEC would be obligated to treat inter-carrier calls in the same manner as it treats other local calls. The out of area carrier would, of course, be free to charge end users (but not other carriers) for the transport into the local area in any manner it chose, as long as it is not a dominant carrier.

72. Interconnecting networks in different local calling areas could also agree to split the cost of the transport between their local calling areas. If they did so, both networks would remain free to impose a toll (per-minute fee) or other fee on end users for their use, if they chose to do so. If the networks do not agree, however, a non-dominant carrier would have the right to demand that a dominant LEC allow it to provide the transport into the local calling area, interconnect on a BASICS basis, and have its traffic be treated on a non-discriminatory basis.

73. We do not discuss in this paper the separable question of whether recovery would be from calling parties, called parties, or both. What BASICS would preclude, however, is one network charging the other network for local interconnection, except to the extent that they split capacity costs incremental to local interconnection (or mutually agree to another arrangement).

VIII. A BRIEF COMPARISON OF BASICS TO CURRENT INTERCONNECTION REGIMES

74. A bill and keep regime patterned after the BASICs rules solves several problems that are inherent in access charges, reciprocal compensation and international settlements. First, such a regime eliminates the ability of a network to shifts costs from its subscribers to another network. A network can recover its costs from another network's subscribers only to the extent each of those subscribers is willing to accept its charges. By eliminating the intrinsic monopoly of access, reciprocal compensation and settlements, it also eliminates the chief theoretical justification for rate-regulating inter-carrier compensation.

75. Second, forcing networks to bear their own costs has many efficiency ramifications. Subscribers and networks, through their subscription and entry decisions, control the costs they bear. Under access charges a network recovers only a fraction of its costs from its own subscribers. Under reciprocal compensation and international settlements, a network's costs are an average of many networks. Under bill and keep, a network's costs are determined by its own decisions.

76. Third, a bill and keep regime greatly reduces the artificial arbitrage opportunities

by giving customers the correct market signals about whether to build a network and interconnect, or to subscribe to an existing network. Under access charges, much traffic has moved off the public switched network on to private special access networks. The ESP exemption allows enhanced service providers to interconnect with local networks as subscribers and thus avoid being penalized by the high access charges imposed on IXCs.

77. Fourth, by eliminating the emphasis on the direction of the flow of traffic between networks, bill and keep reduces the incentives of customers to artificially organize traffic into one-way flows. For example, under reciprocal compensation, new networks had a strong incentive to seek out customers that only received calls. Under settlements, call-back schemes proliferated.

78. Finally, although access, reciprocal compensation and settlements do not necessarily lead to artificial per-minute costs being created on interconnecting networks, as a practical matter they have inevitably transmuted what are capacity costs on one network into real per-minute costs on interconnecting networks. It seems fair to say that the Internet would not be what it is today if Internet service providers had had a per-minute cost structure imposed on them.

79. The access charge regime, of course, was not intended to achieve economic efficiency. It was designed to transfer subsidies from IXCs (or their customers) to local carriers, in order to reduce local rates.[70] The stated primary purpose was to increase penetration, i.e. the percentage of the population that subscribed to telephone service, and thus promote universal service. Today, penetration is very high except in certain very limited areas.[71] More importantly, the Telecommunications Act of 1996 directed that support for universal service no longer be provided through cross-subsidies.[72] Now that the statute has directed that its primary purpose should be accomplished by other means, there is no longer an over-riding justification for enduring the inefficiencies of the access charge regime.

80. The reciprocal compensation regime differs from the access charge regime in degree rather than in principle. It may be thought of simply as symmetric access charges. The principal difference is that reciprocal compensation rates are not explicitly intended to transfer substantial subsidies to the terminating carrier, thus they tend to be much lower than access charges. On the other hand, reciprocal compensation applies to local rather than long distance traffic, so these rates are applied to many more minutes than are access rates. From a BASICS viewpoint, the costs of terminating calls should not be included in reciprocal compensation rates. Furthermore, as with access charges, direction of traffic flow is irrelevant from a BASICS perspective. The BASICS rule would yield much greater efficiency than a reciprocal

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[70] See Brock (1994), fn 7 *supra*, especially chapter ten.

[71] See FCC, *Universal Service Monitoring Report*, CC Docket No. 98-202, September 2000, Section 6.

[72] 47 USC 254(b)(5).

compensation system.

81. The current system of international settlements is based on the same broad approach as access charges. That is, the terminating carrier is compensated not only for the incremental costs of interconnection, but also for local termination of international calls. The monopoly carrier in other countries often sets the settlement rates at very high levels, thus aggravating the resulting inefficiency.

82. Of the current access regimes, the ESP exemption is the closest to BASICS in that it allows Enhanced Service Providers to interconnect with LECs by subscribing as end users. Under the right circumstances, as noted above, (mutual) subscription is approximately equivalent to a BASICS solution.[73] This solution to potential carrier market dominance in these potentially competitive markets was generated in the FCC's Computer Trilogy orders. Allowing carriers to interconnect on a subscription basis appear to be a useful approximation to a BASICS solution.

83. Technological developments are making it more attractive and easier for subscribers to exploit arbitrage opportunities offered by the differences among these various interconnection regimes. The use of Internet-based E-mail has already enabled many users to avoid (bypass) use of long distance voice services that are priced substantially above costs by substituting a similar, though not identical, service. The ESP exemption and reciprocal compensation rules favor flat rated (unlimited usage) pricing of ISP services.[74] At the same time, Internet interconnection closely resembles a BASICS rule. These factors already make E-mail a very low cost alternative to voice services and thus encourage customers to substitute away from long distance calls.

84. The ongoing improvement of the quality of Internet Protocol (IP) Telephony may greatly exacerbate the trend away from traditional long distance voice services. For the same reasons described in the previous paragraph, users are able to exploit the arbitrage opportunities offered by the differences among the access charge, reciprocal compensation and ESP exemption regimes. As IP telephony improves, this movement away from long distance can be expected to intensify.

85. These developments make the replacement of inconsistent interconnection regimes very desirable from the viewpoint of economic efficiency and regulatory simplicity. They may also be desirable to firms that cannot be sure how future developments will interact with the inconsistent regimes. Other future technological developments, whose natures are unknown at this time, may have substantial additional impacts as long as there are several inconsistent interconnection regimes. E-mail and IP Telephony are technological developments

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[73] See paragraph 35 above.

[74] The ESP exemption prevents carriers from charging per minute access charges on ISP traffic. The reciprocal compensation rules encourage competitive LECs, in particular, to offer attractive terms to ISPs who will attract large volumes of terminating traffic, and thus large amounts of revenue, from incumbent LECs.

that have appeared suddenly, having become significant only in the past five years. Other problems are arising as the concept of access charges is extended to carriers with very different costs. Substantial "arbitrage opportunities" generated by differences in current interconnection regimes are inducing inventors and entrepreneurs to find new ways of providing services. These developments can be highly beneficial. To the extent they are motivated by differences in regulatory rules applying to various types of interconnection, however, they can also result in substantial inefficiencies and disruptions. A BASICS interconnection regime could replace all current interconnection regimes with a simple, efficient solution and offer the benefits of consistent treatment of all inter-network interconnection.

IX. POLICY CONSIDERATIONS THAT PRECLUDED BASICS-LIKE PROPOSALS IN THE PAST MAY NO LONGER APPLY

86. The history of interconnection policy suggests that a BASICS rule is not a radical departure from precedent, and that considerations that precluded its adoption in the past may no longer hold. As Brock explains, the very first competitive entry into retail long distance service relied on interconnection on a basis that is very close to a BASICS rule. In the mid-1970s, MCI initially obtained interconnection by subscribing to local business line service on both ends of MCI's inter-city transport link.[75] As we noted above, at least for simple networks, subscription is equivalent to a BASICS interconnection rule.[76] AT&T responded by creating special, higher, interconnection rates, which regulators permitted in order to protect the subsidies included in long distance rates.[77]

87. When AT&T began implementing discriminatory rates for interconnection, the interim rates were capacity based.[78] This is a rough approximation to a BASICS rule, under which carriers split incremental capacity costs equally, although the rates were set above cost to preserve the subsidy.

88. DOJ considered long distance service analogous to CPE. When the AT&T Divestiture was being negotiated, DOJ's theory was that long distance (i.e. interconnection) should be separated from local service.[79] This is our conclusion as well. In discussing financial arrangements between the new companies, Brock notes that "the simplest solution [to

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[75] Brock (1994), fn 7 *supra*, pp. 124-127.

[76] See discussion at paragraph 35 above. This is a bit of an oversimplification, of course, in that subscription typically includes services that may be bundled and that may not be useful to an interconnecting carrier.

[77] This is a highly simplified summary of a rather complex discussion in Brock (1994), fn 7 *supra*, chapter 8.

[78] These were the initial Exchange Network Facilities for Interstate Access (ENFIA) rates. See Brock (1994), fn 7 *supra*, p. 142.

[79] Brock (1994), fn 7 *supra*, p. 175.

interconnection] would have been to follow the CPE model and allow any long distance company to connect to any local service with no payment other than the established local service charge."[80] This is, of course, equivalent to interconnection by subscription, thus very similar to the BASICS proposal. This proposal was not adopted because it would have "eliminated the complex set of payments among telephone companies ..."[81]

89. In his 1995 paper, Brock also points out that a BASICS-like rule would resolve interconnection problems and produce an efficient solution compatible with competition. Brock's results, however, depend on balanced traffic or negligible termination costs. Our analysis above extends this proposal more generally by showing that traffic flow and termination costs are irrelevant.

90. BASICS resembles previous proposals and the earliest experience with competitive interconnection. The primary reason that these previous proposals were not adopted was the driving policy objective of protecting subsidy flows to local carriers. This objective has been removed by the 1996 Act. BASICS should now be considered as a replacement for all current interconnection regimes.

[80] Brock (1994), fn 7 *supra*, p. 176.

[81] Brock (1994), fn 7 *supra*, p. 176.

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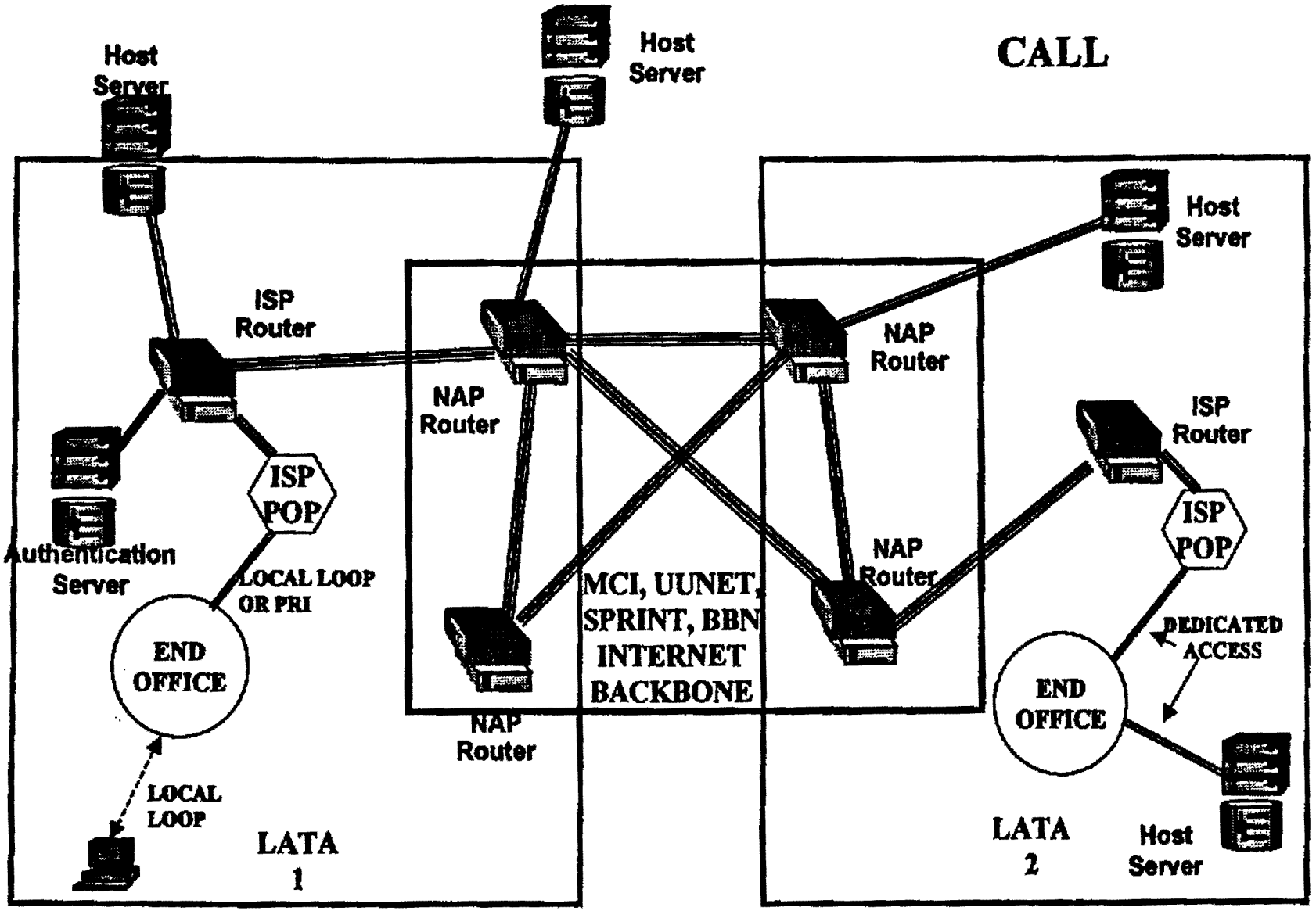
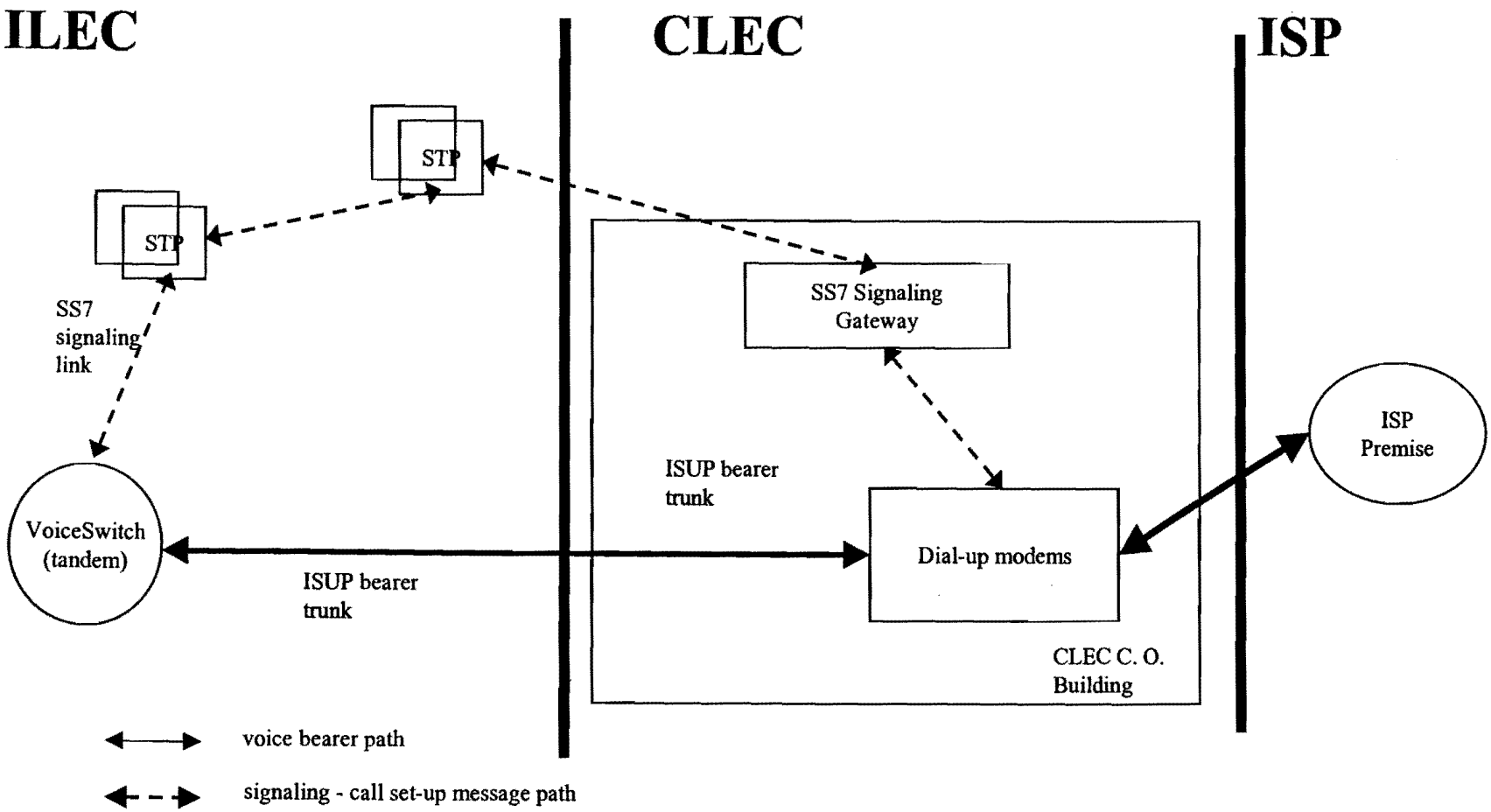
CLEC PRI Model

TYPICAL INTERNET CALL



CLEC SS7 Model



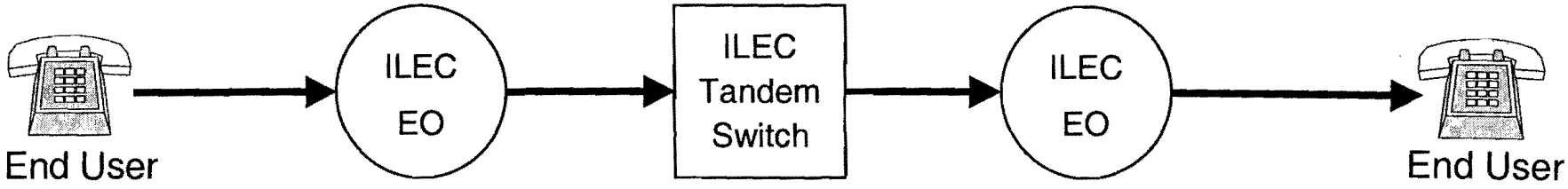
Docket No. 000075-TP
Direct Testimony of Howard Lee Jones
Corrected Exhibit No. HLJ-2
FPSC Exhibit No. _____
Page 1 of 1

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 000075-TP EXHIBIT NO. 23
COMPANY/
WITNESS: Shiroishi
DATE: 3-7&8-01

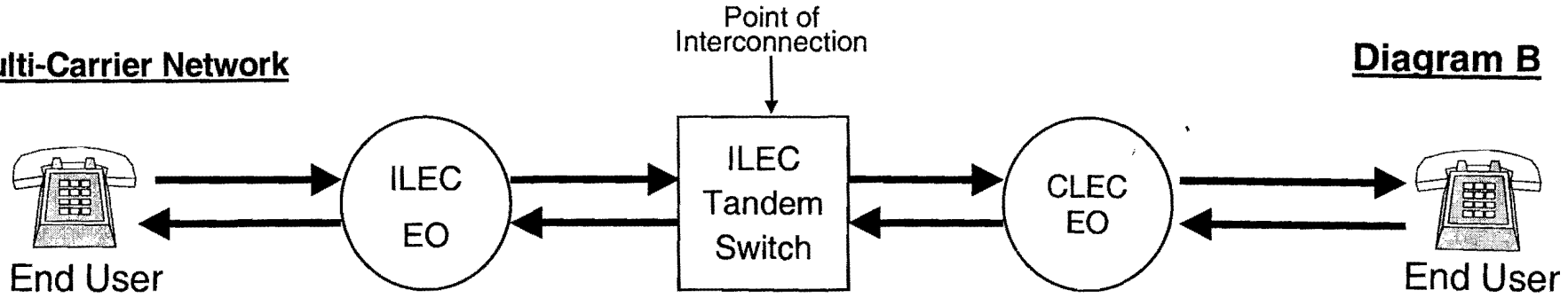
Reciprocal Compensation

- **ILEC receives monthly fee from its end user to apply towards the cost of terminating local calls**

Single Carrier Network — **Diagram A**



Multi-Carrier Network — **Diagram B**



Call Flow

ILEC pays CLEC
Reciprocal Compensation

Call Flow

CLEC pays ILEC
Reciprocal Compensation

Access Service for IXC-Bound and ISP-Bound Traffic Involving Single Carrier Network

Diagram C

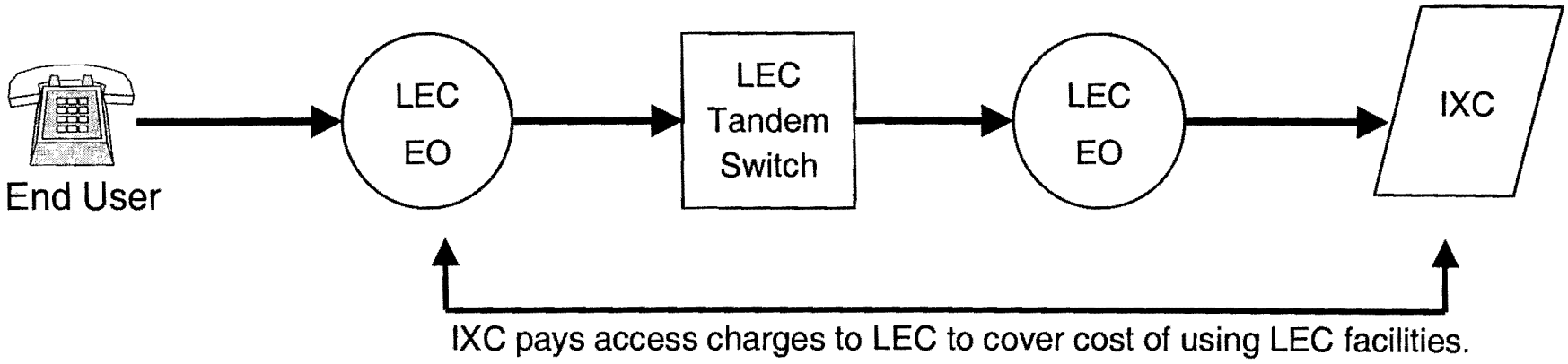
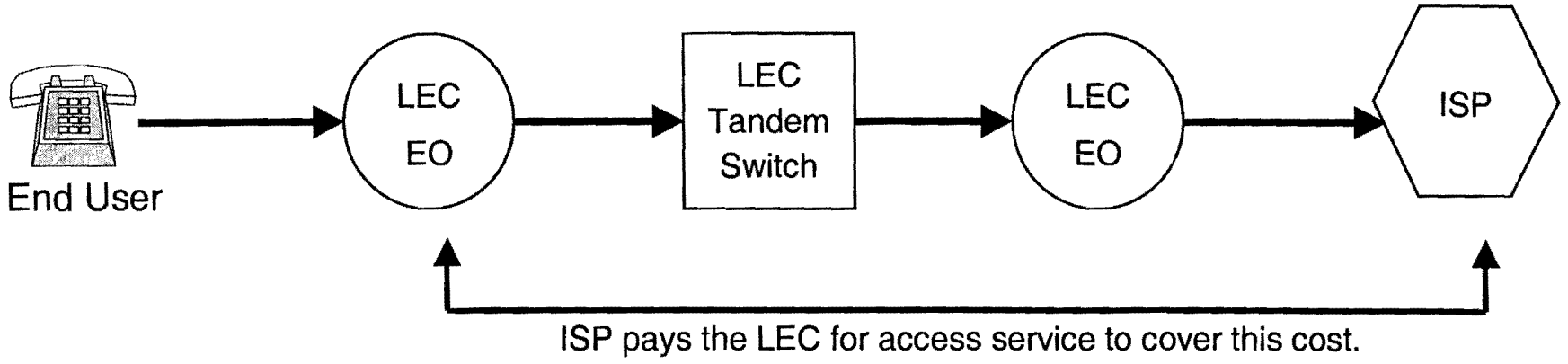


Diagram D



FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 000075-01 EXHIBIT NO. 24
COMPANY/ WITNESS: Allied
DATE: 3-7&8-01

BELL ATLANTIC TELEPHONE COMPANIES, Petitioner,

v.

FEDERAL COMMUNICATIONS COMMISSION and United States of America, Respondents.

Telecommunications Resellers Association, et al., Intervenors.

Nos. 99–1094, 99–1095, 99–1097, 99–1106, 99–1126, 99–1134, 99–1136 and 99–1145.

United States Court of Appeals, District of Columbia Circuit.

Argued Nov. 22, 1999.

Decided March 24, 2000.

Incumbent local exchange carriers (LECs) and firms which provide local exchange telecommunications services to internet service providers (ISPs) petitioned for review of rulings of the Federal Communications Commission (FCC) determining that calls to ISPs within the caller's local calling area are not "local" so a to be subject to reciprocal compensation requirement applicable to "local telecommunications traffic," and determining that, in the absence of federal regulation, state commissions have the authority to impose reciprocal compensation. The Court of Appeals, Stephen F. Williams, Circuit Judge, held that the FCC failed to adequately explain why LECs that terminate calls to ISPs are not properly seen as "terminat[ing] ... local telecommunications traffic," and why such traffic is "exchange access" rather than "telephone exchange service," thus requiring remand.

Vacated and remanded

1. Telecommunications ⇐336

Although internet service providers (ISPs) use telecommunications to provide information service, they are not themselves "telecommunications providers," and the Federal Communications Commission (FCC), in ruling that calls to ISPs within the caller's local calling area are not "local" so a to be subject to reciprocal compensation requirement, has not satisfactorily explained why local exchange carriers (LECs) that terminate calls to ISPs are not properly seen as "terminat[ing] ... local telecommunications traffic," nor has it adequately explained the appropriateness of its decision to treat end-to-end analysis, applicable to jurisdictional determinations, as controlling, thus requiring remand. Telecommunications Act of 1996, 47 U.S.C.A. § 251(b)(5); 47 C.F.R. §§ 51.701(a), 64.702(a).

See publication Words and Phrases for other judicial constructions and definitions.

2. Telecommunications ⇐336

The Federal Communications Commission (FCC), in ruling that calls to internet service providers (ISPs) within the caller's local calling area are not "local" so as to be subject to reciprocal compensation requirement, has not satisfactorily explained why such traffic is "exchange access" rather than "telephone exchange service" under the governing statute, thus requiring remand to the FCC. Communications Act of 1934, § 3(16, 47), 47 U.S.C.A. § 153(16, 47); Telecommunications Act of 1996, 47 U.S.C.A. § 251(b)(5); 47 C.F.R. § 51.701(a).

3. Administrative Law and Procedure ⇐762

Though Court of Appeals reviews agency's interpretation only for reasonableness where Congress has not resolved the issue, where a decision is valid only as a determination of policy or judgment which the agency alone is authorized to make and which it has not made, a judicial judgment cannot be made to do service.

On Petitions for Review of a Declaratory Ruling of the Federal Communications Commission.

Mark L. Evans and Darryl M. Bradford argued the causes for petitioners. With them on the briefs were Thomas F. O'Neil, III, Adam H. Charnes, Mark B. Ehrlich, Donald B. Verrilli, Jr., Jodie L. Kelley, John J. Hamill, Emily M. Williams, Theodore Case Whitehouse, Thomas Jones, Albert H. Kramer, Andrew D. Lipman, Richard M. Rindler, Robert M. McDowell, Robert D. Vandiver, Cynthia Brown Miller, Charles C. Hunter, Catherine M. Hannan, Michael D. Hays, Laura H. Phillips, J. G. Harrington, William P. Barr, M. Edward Whelan, III, Michael K. Kellogg, Michael E. Glover, Robert B. McKenna, William T. Lake, John H. Harwood, II, Jonathan J. Frankel, Robert Sutherland, William B. Barfield, Theodore A. Livingston and John E. Muench. Maureen F. Del Duca, Lynn R. Charytan, Gail L. Polivy, John F. Raposa and Lawrence W. Katz entered appearances.

Christopher J. Wright, General Counsel, Federal Communications Commission, argued the cause for respondents. With him on the brief were Daniel M. Armstrong, Associate General Counsel, and John E. Ingle, Laurence N. Bourne and Lisa S. Gelb, Counsel. Catherine G. O'Sullivan and Nancy C. Garrison, Attorneys, U.S. Department of Justice, entered appearances.

David L. Lawson argued the cause for intervenors in opposition to the LEC petitioners. With him on the brief were Mark C. Rosenblum, David W. Carpenter, James P. Young, Emily M. Wiliams, Andrew D. Lipman, Richard M. Rindler, Robert D. Vandiver, Cynthia Brown Miller, Theodore Case Whitehouse, Thomas Jones, John D. Seiver, Charles C. Hunter, Catherine M. Hannan, Carol Ann Bischoff and Robert M. McDowell.

William P. Barr, M. Edward Whelan, Michael E. Glover, Mark L. Evans, Michael K. Kellogg, Mark D. Roellig, Dan Poole, Robert B. McKenna, William T. Lake, John H. Harwood, II, Jonathan J. Frankel, Robert Sutherland, William B. Barfield, Theodore A. Livingston and John E. Muench were on the brief for the Local Exchange Carrier intervenors.

Robert J. Aamoth, Ellen S. Levine, Charles D. Gray, James B. Ramsay, Jonathan J. Nadler, David A. Gross, Curtis T. White, Edward Hayes, Jr., and David M. Janas entered appearances for intervenors

Before: WILLIAMS, SENTELLE and RANDOLPH, Circuit Judges.

Opinion for the Court filed by Circuit Judge STEPHEN F. WILLIAMS.

STEPHEN F. WILLIAMS, Circuit Judge:

The Telecommunications Act of 1996, Pub.L. No. 104–104, 110 Stat. 56, 47 U.S.C. §§ 151–714, requires local exchange carriers ("LECs") to "establish reciprocal compensation arrangements for the transport and termination of telecommunications." *Id.* § 251(b)(5). When LECs collaborate to complete a call, this provision ensures compensation both for the originating LEC, which receives payment from the end-user, and for the recipient's LEC. By regulation the Commission has limited the scope of the reciprocal compensation requirement to "local telecommunications traffic." 47 CFR § 51.701(a). In the ruling under review, it considered whether calls to internet service providers ("ISPs") within the caller's local calling area are themselves "local." In doing so it applied its so-called "end-to-end" analysis, noting that the communication characteristically will ultimately (if indirectly) extend beyond the ISP to websites out-of-state and around the world. Accordingly it found the calls non-local. See *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Intercarrier Compensation for ISP-Bound Traffic*, 14 FCC Rcd 3689, 3690 (¶ 1) (1999) ("FCC Ruling").

Having thus taken the calls to ISPs out of § 251(b)(5)'s provision for "reciprocal compensation" (as it interpreted it), the

Commission could nonetheless itself have set rates for such calls, but it elected not to. In a Notice of Proposed Rulemaking, CC Docket 99–68, the Commission tentatively concluded that "a negotiation process, driven by market forces, is more likely to lead to efficient outcomes than are rates set by regulation." FCC Ruling, 14 FCC Rcd at 3707 (¶ 29), but for the nonce it left open the matter of implementing a system of federal controls. It observed that in the meantime parties may voluntarily include reciprocal compensation provisions in their interconnection agreements, and that state commissions, which have authority to arbitrate disputes over such agreements, can construe the agreements as requiring such compensation; indeed, even when the agreements of interconnecting LECs include no linguistic hook for such a requirement, the commissions can find that reciprocal compensation is appropriate. FCC Ruling, 14 FCC Rcd at 3703–05 (¶¶ 24–25); see § 251(b)(1) (establishing such authority). "[A]ny such arbitration," it added, "must be consistent with governing federal law." FCC Ruling, 14 FCC Rcd at 3705 (¶ 25).

This outcome left at least two unhappy groups. One, led by Bell Atlantic, consists of incumbent LECs (the "incumbents"). Quite content with the Commission's finding of § 251(b)(5)'s inapplicability, the incumbents objected to its conclusion that in the absence of federal regulation state commissions have the authority to impose reciprocal compensation. Although the Commission's new rulemaking on the subject may eventuate in a rule that preempts the states' authority, the incumbents object to being left at the mercy of state commissions until that (hypothetical) time, arguing that the commissions have mandated exorbitant compensation. In particular, the incumbents, who are paid a flat monthly fee, have generally been forced to provide compensation for internet calls on a per-minute basis. Given the average length of such calls the cost can be substantial, and since ISPs do not make outgoing calls, this compensation is hardly "reciprocal."

Another group, led by MCI WorldCom, consists of firms that are seeking to compete with the incumbent LECs and which provide local exchange telecommunications services to ISPs (the "competitors"). These firms, which stand to receive reciprocal compensation on ISP-bound calls, petitioned for review with the complaint that the Commission erred in finding that the calls weren't covered by § 251(b)(5).

The end-to-end analysis applied by the Commission here is one that it has traditionally used to determine whether a call is within its interstate *jurisdiction*. Here it used the analysis for quite a different purpose, without explaining why such an extension made sense in terms of the statute or the Commission's own regulations. Because of this gap, we vacate the ruling and remand the case for want of reasoned decisionmaking.

* * *

In February 1996 Congress passed the Telecommunications Act of 1996 (the "1996 Act" or the "Act"), stating an intent to open local telephone markets to competition. See H.R. Conf. Rep. No. 104–458, at 113 (1996). Whereas before local exchange carriers generally had state-licensed monopolies in each local service area, the 1996 Act set out to ensure that "[s]tates may no longer enforce laws that impede[ ] competition," and subjected incumbent LECs "to a host of duties intended to facilitate market entry." *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 119 S.Ct. 721, 726, 142 L.Ed.2d 835 (1999).

Among the duties of incumbent LECs is to "provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network ... for the transmission and routing of telephone exchange service and exchange access." 47 U.S.C. § 251(c)(2). ("Telephone exchange service" and "exchange access" are words of art to which we shall later return.)

Competitor LECs have sprung into being as a result, and their customers call, and receive calls from, customers of the incumbents.

We have already noted that § 251(b)(5) of the Act establishes the duty among local exchange carriers "to establish reciprocal compensation arrangements for the transport and termination of telecommunications." 47 U.S.C. § 251(b)(5). Thus, when a customer of LEC A calls a customer of LEC B, LEC A must pay LEC B for completing the call, a cost usually paid on a per-minute basis. Although § 251(b)(5) purports to extend reciprocal compensation to all "telecommunications," the Commission has construed the reciprocal compensation requirement as limited to local traffic. See 47 CFR § 51.701(a) ("The provisions of this subpart apply to reciprocal compensation for transport and termination of local telecommunications traffic between LECs and other telecommunications carriers."). LECs that originate or terminate long-distance calls continue to be compensated with "access charges," as they were before the 1996 Act. Unlike reciprocal compensation, these access charges are not paid by the originating LEC. Instead, the long-distance carrier itself pays both the LEC that originates the call and links the caller to the long distance network, and the LEC that terminates the call. See *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 11 FCC Rcd 15499, 16013 (¶ 1034) (1996) ("*Local Competition Order*").

The present case took the Commission beyond these traditional telephone service boundaries. The internet is "an international network of interconnected computers that enables millions of people to communicate with one another in 'cyberspace' and to access vast amounts of information from around the world." *Reno v. ACLU*, 521 U.S. 844, 844, 117 S.Ct. 2329, 138 L.Ed.2d 874 (1997). Unlike the conventional "circuit-switched network," which uses a single end-to-end path for each transmission, the internet is a "distributed packet-switched network, which means that information is split up into small chunks or 'packets' that are individually routed through the most efficient path to their destination." *In the Matter of Federal–State Joint Board on Universal Service*, 13 FCC Rcd 11501, 11532 (¶ 64) (1998) ("*Universal Service Report*"). ISPs are entities that allow their customers access to the internet. Such a customer, an "end user" of the telephone system, will use a computer and modem to place a call to the ISP server in his local calling area. He will usually pay a flat monthly fee to the ISP (above the flat fee already paid to his LEC for use of the local exchange network). The ISP "typically purchases business lines from a LEC, for which it pays a flat monthly fee that allows unlimited incoming calls." FCC Ruling, 14 FCC Rcd at 3691 (¶ 4).

In the ruling now under review, the Commission concluded that § 251(b)(5) does not impose reciprocal compensation requirements on incumbent LECs for ISP-bound traffic. FCC Ruling, 14 FCC Rcd at 3690 (¶ 1). Faced with the question whether such traffic is "local" for purposes of its regulation limiting § 251(b)(5) reciprocal compensation to local traffic, the Commission used the "end-to-end" analysis that it has traditionally used for jurisdictional purposes to determine whether particular traffic is interstate. Under this method, it has focused on "the end points of the communication and consistently has rejected attempts to divide communications at any intermediate points of switching or exchanges between carriers." FCC Ruling, 14 FCC Rcd at 3695 (¶ 10). We save for later an analysis of the various FCC precedents on which the Commission purported to rely in choosing this mode of analysis.

Before actually applying that analysis, the Commission brushed aside a statutory argument of the competitor LECs. They argued that ISP-bound traffic must be either "telephone exchange service," as de-

fined in 47 U.S.C. § 153(47), or "exchange access," as defined in § 153(16).[1] It could not be the latter, they reasoned, because ISPs do not assess toll charges for the service (see *id.*, "the offering of access . . . for the purpose of the origination or termination of telephone toll services"), and therefore it must be the former, for which reciprocal compensation is mandated. Here the Commission's answer was that it has consistently treated ISPs (and ESPs generally) as "users of access service," while treating them as end users merely for access charge purposes. FCC Ruling, 14 FCC Rcd at 3701 (¶ 17).

Having decided to use the "end-to-end" method, the Commission considered whether ISP-bound traffic is, under this method, in fact interstate. In a conventional "circuit-switched network," the jurisdictional analysis is straightforward: a call is intrastate if, and only if, it originates and terminates in the same state. In a "packet-switched network," the analysis is not so simple, as "[a]n Internet communication does not necessarily have a point of 'termination' in the traditional sense." FCC Ruling, 14 FCC Rcd at 3701–02 (¶ 18). In a single session an end user may communicate with multiple destination points, either sequentially or simultaneously. Although these destinations are sometimes intrastate, the Commission concluded that "a substantial portion of Internet traffic involves accessing interstate or foreign websites." *Id.* Thus reciprocal compensation was not due, and the issue of compensation between the two local LECs was left initially to the LECs involved, subject to state commissions' power to order compensation in the "arbitration" proceedings, and, of course to whatever may follow from the Commission's new rulemaking on its own possible ratesetting.

* * *

The issue at the heart of this case is whether a call to an ISP is local or long-distance. Neither category fits clearly. The Commission has described local calls, on the one hand, as those in which LECs collaborate to complete a call and are compensated for their respective roles in completing the call, and long-distance calls, on the other, as those in which the LECs collaborate with a long-distance carrier, which itself charges the end-user and pays out compensation to the LECs. See *Local Competition Order*, 11 FCC Rcd at 16013 (¶ 1034) (1996).

Calls to ISPs are not quite local, because there is some communication taking place between the ISP and out-of-state websites. But they are not quite long-distance, because the subsequent communication is not really a continuation, in the conventional sense, of the initial call to the ISP. The Commission's ruling rests squarely on its decision to employ an end-to-end analysis for purposes of determining whether ISP-traffic is local. There is no dispute that the Commission has historically been justified in relying on this method when determining whether a particular communication is jurisdictionally interstate. But it has yet to provide an explanation why this inquiry is relevant to discerning whether a call to an ISP should fit within the local call model of two collaborating LECs or the long-distance model of a long-distance carrier collaborating with two LECs.

1. "Telephone exchange service" is defined as:
> (A) service within a telephone exchange, or within a connected system of telephone exchanges within the same exchange area operated to furnish to subscribers intercommunicating service of the character ordinarily furnished by a single exchange, and which is covered by the exchange service charge, or (B) comparable service provided through a system of switches, transmission equipment, or other facilities (or combination thereof) by which a subscriber can originate and terminate a telecommunications service.

47 U.S.C. § 153(47). "Exchange access" is defined as:
> the offering of access to telephone exchange services or facilities for the purpose of the origination or termination of telephone toll services.

Id. § 153(16).

In fact, the extension of "end-to-end" analysis from jurisdictional purposes to the present context yields intuitively backwards results. Calls that are jurisdictionally *intra*state will be subject to the federal reciprocal compensation requirement, while calls that are *inter*state are not subject to federal regulation but instead are left to potential state regulation. The inconsistency is not necessarily fatal, since under the 1996 Act the Commission has jurisdiction to implement such provisions as § 251, even if they are within the traditional domain of the states. See *AT&T Corp.*, 119 S.Ct. at 730. But it reveals that arguments supporting use of the end-to-end analysis in the jurisdictional analysis are not obviously transferable to this context.

In attacking the Commission's classification of ISP-bound calls as non-local for purposes of reciprocal compensation, MCI WorldCom notes that under 47 CFR § 51.701(b)(1) "telecommunications traffic" is local if it "originates and terminates within a local service area." But, observes MCI WorldCom, the Commission failed to apply, or even to mention, its definition of "termination," namely "the switching of traffic that is subject to section 251(b)(5) at the terminating carrier's end office switch (or equivalent facility) and delivery of that traffic from that switch to the called party's premises." *Local Competition Order*, 11 FCC Rcd at 16015 (¶ 1040); 47 CFR § 51.701(d). Calls to ISPs appear to fit this definition: the traffic is switched by the LEC whose customer is the ISP and then delivered to the ISP, which is clearly the "called party."

In its ruling the Commission avoided this result by analyzing the communication on an end-to-end basis: "[T]he communications at issue here do not terminate at the ISP's local server . . ., but continue to the ultimate destination or destinations." FCC Ruling, 14 FCC Rcd at 3697 (¶ 12). But the cases it relied on for using this analysis are not on point. Both involved a single continuous communication, originated by an end-user, switched by a long-distance communications carrier, and eventually delivered to its destination. One, *Teleconnect Co. v. Bell Telephone Co.*, 10 FCC Rcd 1626 (1995), *aff'd sub nom. Southwestern Bell Tel. Co. v. FCC*, 116 F.3d 593 (D.C.Cir.1997) ("*Teleconnect*"), involved an 800 call to a long-distance carrier, which then routed the call to its intended recipient. The other, *In the Matter of Petition for Emergency Relief and Declaratory Ruling Filed by the BellSouth Corporation*, 7 FCC Rcd 1619 (1992), considered a voice mail service. Part of the service, the forwarding of the call from the intended recipient's location to the voice mail apparatus and service, occurred entirely within the subscriber's state, and thus looked local. Looking "end-to-end," however, the Commission refused to focus on this portion of the call but rather considered the service in its entirety (i.e., originating with the out-of-state caller leaving a message, or the subscriber calling from out-of-state to retrieve messages). *Id.* at 1621 (¶ 12).

*6

[1] ISPs, in contrast, are "information service providers," *Universal Service Report*, 13 FCC Rcd at 11532–33 (¶ 66), which upon receiving a call originate further communications to deliver and retrieve information to and from distant websites. The Commission acknowledged in a footnote that the cases it relied upon were distinguishable, but dismissed the problem out-of-hand: "Although the cited cases involve interexchange carriers rather than ISPs, and the Commission has observed that 'it is not clear that [information service providers] use the public switched network in a manner analogous to IXCs,' *Access Charge Reform Order*, 12 FCC Rcd at 16133, the Commission's observation does not affect the jurisdictional analysis." FCC Ruling, 14 FCC Rcd at 3697 n.36 (¶ 12). It is not clear how this helps the Commission. Even if the difference between ISPs and traditional long-distance carriers is irrelevant for jurisdictional purposes, it appears relevant for

purposes of reciprocal compensation. Although ISPs use telecommunications to provide information service, they are not themselves telecommunications providers (as are long-distance carriers).

In this regard an ISP appears, as MCI WorldCom argued, no different from many businesses, such as "pizza delivery firms, travel reservation agencies, credit card verification firms, or taxicab companies," which use a variety of communication services to provide their goods or services to their customers. Comments of WorldCom, Inc. at 7 (July 17, 1997). Of course, the ISP's origination of telecommunications as a result of the user's call is instantaneous (although perhaps no more so than a credit card verification system or a bank account information service). But this does not imply that the original communication does not "terminate" at the ISP. The Commission has not satisfactorily explained why an ISP is not, for purposes of reciprocal compensation, "simply a communications-intensive business end user selling a product to other consumer and business end-users." *Id.*

The Commission nevertheless argues that although the call from the ISP to an out-of-state website is information service for the end-user, it is telecommunications for the ISP, and thus the telecommunications cannot be said to "terminate" at the ISP. As the Commission states: "Even if, from the perspective of the *end user* as customer, the telecommunications portion of an Internet call 'terminates' at the ISP's server (and information service begins), the remaining portion of the call would continue to constitute telecommunications from the perspective of the *ISP* as customer." Commission's Br. at 41. Once again, however, the mere fact that the ISP originates further telecommunications does not imply that the original telecommunication does not "terminate" at the ISP. However sound the end-to-end analysis may be for jurisdictional purposes, the Commission has not explained why viewing these linked telecommunications as continuous works for purposes of reciprocal compensation.

Adding further confusion is a series of Commission rulings dealing with a class, enhanced service providers ("ESPs"), of which ISPs are a subclass. See FCC Ruling, 14 FCC Rcd at 3689 n.1 (¶ 1). ESPs, the precursors to the 1996 Act's information service providers, offer data processing services, linking customers and computers via the telephone network. See *MCI Telecommunications Corp. v. FCC*, 57 F.3d 1136, 1138 (D.C.Cir.1995).[2] In its establishment of the access charge system for long-distance calls, the Commission in 1983 exempted ESPs from the access charge system, thus in effect treating them like end users rather than long-distance carriers. See *In the Matter of MTS & WATS Market Structure*, 97 F.C.C.2d 682, 711–15 (¶ 77–83), 1983 WL 183026 (1983). It reaffirmed this decision in 1991, explaining that it had "refrained from applying full access charges to ESPs out of concern that the industry has continued to be affected by a number of significant, potentially disruptive, and rapidly changing circumstances." *In the Matter of Part 69 of the Commission's Rules Relating to the Creation of Access Charge Subelements for Open Network Architecture*, 6 FCC Rcd 4524, 4534 (¶ 54) (1991). In 1997 it again preserved the status quo. *In the Matter of Access Charge Reform*, 12 FCC Rcd 15982 (1997) ("*Access Charge Reform Order*"). It justified the exemption in terms of the goals of the 1996 Act, saying that its purpose was to "preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services." *Id.* at 16133 (¶ 344) (quoting 47 U.S.C. § 230(b)(2)).

2. The regulatory definition states that ESPs offer "services ... which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information." 47 CFR § 64.702(a).

This classification of ESPs is something of an embarrassment to the Commission's present ruling. As MCI WorldCom notes, the Commission acknowledged in the *Access Charge Reform Order* that "given the evolution in [information service provider] technologies and markets since we first established access charges in the early 1980s, it is not clear that [information service providers] use the public switched network in a manner analogous to IXCs [inter-exchange carriers]." 12 FCC Rcd at 16133 (¶ 345). It also referred to calls to information service providers as "local." *Id.* at 16132 (¶ 342 n.502). And when this aspect of the *Access Charge Reform Order* was challenged in the 8th Circuit, the Commission's briefwriters responded with a sharp differentiation between such calls and ordinary long-distance calls covered by the "end-to-end" analysis, and even used the analogy employed by MCI WorldCom here—that a call to an information service provider is really like a call to a local business that then uses the telephone to order wares to meet the need. Brief of FCC at 76, *Southwestern Bell v. FCC*, 153 F.3d 523 (8th Cir.1998) (No. 97-2618). When accused of inconsistency in the present matter, the Commission flipped the argument on its head, arguing that its exemption of ESPs from access charges actually confirms "its understanding that ESPs in fact use interstate access service; otherwise, the exemption would not be necessary." FCC Ruling, 14 FCC Rcd at 3700 (¶ 16). This is not very compelling. Although, to be sure, the Commission used policy arguments to justify the "exemption," it also rested it on an acknowledgment of the real differences between long-distance calls and calls to information service providers. It is obscure why those have now dropped out of the picture.

Because the Commission has not supplied a real explanation for its decision to treat end-to-end analysis as controlling, *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43, 103 S.Ct. 2856, 77 L.Ed.2d 443 (1983); 5 U.S.C. § 706(2)(A), we must vacate the ruling and remand the case.

[2] There is an independent ground requiring remand—the fit of the present rule within the governing statute. MCI WorldCom says that ISP-traffic is "telephone exchange service[ ]" as defined in 47 U.S.C. § 153(16), which it claims "is synonymous under the Act with the service used to make local phone calls," and emphatically not "exchange access" as defined in 47 U.S.C. § 153(47). Petitioner MCI WorldCom's Initial Br. at 22. In the only paragraph of the ruling in which the Commission addressed this issue, it merely stated that it "consistently has characterized ESPs as 'users of access service' but has treated them as end users for pricing purposes." FCC Ruling, 14 FCC Rcd at 3701 (¶ 17). In a statutory world of "telephone exchange *service*" and "exchange *access*," which the Commission here says constitute the only possibilities, the reference to "access service," combining the different key words from the two terms before us, sheds no light. "Access service" is in fact a pre-Act term, defined as "services and facilities provided for the origination or termination of any interstate or foreign telecommunication." 47 CFR § 69.2(b).

If the Commission meant to place ISP-traffic within a third category, not "telephone exchange service" and not "exchange access," that would conflict with its concession on appeal that "exchange access" and "telephone exchange service" occupy the field. But if it meant that just as ESPs were "users of access service" but treated as end users for pricing purposes, so too ISPs are users of exchange access, the Commission has not provided a satisfactory explanation why this is the case. In fact, in *In the Matter of Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended*, 11 FCC Rcd 21905, 22023 (¶ 248) (1996), the Commission clearly stated that "ISPs do not use exchange access." After oral argument in this case the Commission over-

ruled this determination, saying that "noncarriers may be purchasers of those services." *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability*, FCC 99–413, at 21 (¶ 43) (Dec. 23, 1999). The Commission relied on its preAct orders in which it had determined that non-carriers can use "access services," and concluded that there is no evidence that Congress, in codifying "exchange access," intended to depart from this understanding. See *id.* at 21–22 (¶ 44). The Commission, however, did not make this argument in the ruling under review.

Nor did the Commission even consider how regarding noncarriers as purchasers of "exchange access" fits with the statutory definition of that term. A call is "exchange access" if offered "for the purpose of the origination or termination of *telephone toll services*." 47 U.S.C. § 153(16). As MCI WorldCom argued, ISPs provide information service rather than telecommunications; as such, "ISPs connect to the local network 'for the purpose of' providing information services, not originating or terminating telephone toll services." Petitioner MCI WorldCom's Reply Br. at 6.

[3] The statute appears ambiguous as to whether calls to ISPs fit within "exchange access" or "telephone exchange service," and on that view any agency interpretation would be subject to judicial deference. See *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842–43, 104 S.Ct. 2778, 81 L.Ed.2d 694 (1984). But, even though we review the agency's interpretation only for reasonableness where Congress has not resolved the issue, where a decision "is valid only as a determination of policy or judgment which the agency alone is authorized to make and which it has not made, a judicial judgment cannot be made to do service." *SEC v. Chenery Corp.*, 318 U.S. 80, 88, 63 S.Ct. 454, 87 L.Ed. 626 (1943). See also *Acme Die Casting v. NLRB*, 26 F.3d 162, 166 (D.C.Cir.1994); *Leeco, Inc. v. Hays*, 965 F.2d 1081, 1085 (D.C.Cir.1992); *City of Kansas City v. Department of Housing and Urban Development*, 923 F.2d 188, 191–92 (D.C.Cir.1991).

* * *

Because the Commission has not provided a satisfactory explanation why LECs that terminate calls to ISPs are not properly seen as "terminat[ing] . . . local telecommunications traffic," and why such traffic is "exchange access" rather than "telephone exchange service," we vacate the ruling and remand the case to the Commission. We do not reach the objections of the incumbent LECs—that § 251(b)(5) preempts state commission authority to compel payments to the competitor LECs; at present we have no adequately explained classification of these communications, and in the interim our vacatur of the Commission's ruling leaves the incumbents free to seek relief from state-authorized compensation that they believe to be wrongfully imposed.

So ordered.

UNITED STATES of America, Appellee,

v.

Russell Eugene WESTON, Jr., Appellant.

No. 99–3119.

United States Court of Appeals, District of Columbia Circuit.

Argued Dec. 6, 1999.

Decided March 24, 2000.

On review of decision of the Bureau of Prisons (BOP) that antipsychotic medication could be administered to pretrial

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED DECEMBER 31, 1999

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE TRANSITION PERIOD FROM _____ TO _____

COMMISSION FILE NUMBER 1-1049

BELLSOUTH TELECOMMUNICATIONS, INC.

A GEORGIA CORPORATION	I.R.S. EMPLOYER NO. 58-0436120

675 WEST PEACHTREE STREET, N. E., ROOM 20M77,
ATLANTA, GEORGIA 30375
TELEPHONE NUMBER 404 529-8611

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

TITLE OF EACH CLASS	NAME OF EACH EXCHANGE ON WHICH REGISTERED
SEE ATTACHMENT.	NEW YORK STOCK EXCHANGE

SECURITIES REGISTERED PURSUANT TO SECTION 12(G) OF THE ACT:

NONE.

AT FEBRUARY 1, 2000 ONE SHARE OF COMMON STOCK WAS OUTSTANDING.

THE REGISTRANT, A WHOLLY-OWNED SUBSIDIARY OF BELLSOUTH CORPORATION, MEETS THE CONDITIONS SET FORTH IN GENERAL INSTRUCTION I(1)(A) AND (B) OF FORM 10-K AND IS THEREFORE FILING THIS FORM WITH REDUCED DISCLOSURE FORMAT PURSUANT TO GENERAL INSTRUCTION I(2).

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes ☒ No ☐

DOCUMENTS INCORPORATED BY REFERENCE:

None.

ATTACHMENT

Title of each class

ISSUED BY:

Southern Bell Telephone and Telegraph Company

$75,000,000	Principal Amount of Thirty-Nine Year 4⅜% Debentures, due April 1, 2001
$70,000,000	Principal Amount of Forty Year 4⅜% Debentures, due August 1, 2003
$100,000,000	Principal Amount of Thirty-Five Year 4¾% Debentures, due September 1, 2000
$100,000,000	Principal Amount of Thirty-Eight Year 6% Debentures, due October 1, 2004

BellSouth Telecommunications, Inc.

$250,000,000	Principal Amount of Forty Year 8¼% Debentures, due July 1, 2032
$300,000,000	Principal Amount of Forty Year 7⅞% Debentures, due August 1, 2032
$300,000,000	Principal Amount of Forty Year 7½% Debentures, due June 15, 2033
$350,000,000	Principal Amount of Fifteen Year 5⅞% Debentures, due January 15, 2009
$400,000,000	Principal Amount of Forty Year 6¾% Debentures, due October 15, 2033
$300,000,000	Principal Amount of Forty Year 7⅝% Debentures, due May 15, 2035
$300,000,000	Principal Amount of Thirty Year 7% Debentures, due October 1, 2025
$300,000,000	Principal Amount of Fifty Year 5.85% Debentures, due November 15, 2045
$500,000,000	Principal Amount of One Hundred Year 7% Debentures, due December 1, 2095
$375,133,000	Principal Amount of Twenty Year 6.30% Amortizing Debentures, due December 15, 2015
$500,000,000	Principal Amount of One Hundred Year 6.65% Zero-To-Full Debentures, due December 15, 2095
$150,000,000	Principal Amount of Twelve Year 7% Notes, due February 1, 2005
$450,000,000	Principal Amount of Ten Year 6¼% Notes, due May 15, 2003
$200,000,000	Principal Amount of Eleven Year 6⅜% Notes, due June 15, 2004
$300,000,000	Principal Amount of Ten Year 6½% Notes, due June 15, 2005
$500,000,000	Principal Amount of 6% Reset Put Securities, due June 15, 2012
$500,000,000	Principal Amount of Thirty Year 6⅜% Debentures, due June 1, 2028

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Cautionary Language Concerning Forward-Looking Statements

In addition to historical information, this document contains forward-looking statements regarding events and financial trends that may affect our future operating results, financial position and cash flows. These statements are based on our assumptions and estimates and are subject to risks and uncertainties. For these statements, we claim the protection of the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995.

Factors that could affect future operating results, financial position and cash flows and could cause actual results to differ materially from those expressed in the forward-looking statements are:

- a change in economic conditions in markets where we operate or have material investments which would affect demand for our services;
- the intensity of competitive activity and its resulting impact on pricing strategies and product offerings;
- protracted delay in BellSouth Corporation's entry into the interLATA long distance market;
- higher than anticipated start-up costs or significant up-front investments associated with new business initiatives;
- unanticipated higher capital spending from, or delays in, the deployment of new technologies; and
- unsatisfactory results in regulatory actions including access reform, universal service, terms of interconnection, unbundled network elements and resale rates.

This list of cautionary statements is not exhaustive. These and other developments could cause our actual results to differ materially from those forecast or implied in the forward-looking statements. You are cautioned not to place undue reliance on these forward-looking statements, which are current only as of the date of this filing. We have no obligation, and we do not intend, to publicly release the results of any revisions to these forward-looking statements to reflect events or circumstances after the date of this filing.

BUSINESS

GENERAL

In this document, BellSouth Telecommunications, Inc. and its consolidated subsidiaries are referred to as "we" or "BST".

We are a corporation wholly-owned by BellSouth Corporation (BellSouth). We provide predominantly tariffed wireline telecommunications services to substantial portions of the population within Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee. Our principal executive offices are located at 675 West Peachtree Street, N.E., Atlanta, Georgia 30375 (telephone number 404 529-8611).

BellSouth was incorporated and became a publicly traded company in December 1983 as a result of the breakup of The Bell System. The breakup also created several other local exchange companies, which are referred to as "Baby Bells" in this document. From 1983 through 1996, the services which BellSouth and the other Baby Bells could offer were governed by the settlement terms of the antitrust suit which led to the breakup of The Bell System. Under the terms of that settlement, BellSouth could provide local exchange, network access, information access and long distance telecommunications services within assigned geographical territories, termed "Local Access and Transport Areas" (LATAs). Although prohibited from providing wireline service between LATAs, BellSouth was allowed to provide network access services that linked our customers' telephone or other equipment in one of our LATAs to the transmission facilities of other, nonaffiliated carriers, which provided telecommunications services between LATAs.

The Telecommunications Act of 1996 (the 1996 Act) superseded the governing terms of the 1983 settlement and provides for the development of competition in local telecommunications markets and the conditions under which the Baby Bells such as BellSouth can provide interLATA wireline telecommunications and other services. BellSouth's ability to enter businesses previously proscribed to it by the terms of the 1983 settlement is, however, generally subject to compliance with the regulations of the 1996 Act and the Federal Communications Commission (FCC).

We are subject to increasing competition in all areas of our business. Regulatory, legislative and judicial actions and technological developments have expanded the types of available services and products and the number of companies that may offer them. Increasingly, this competition is from large companies and joint ventures that have substantial capital, technological and marketing resources and are subject to less regulatory constraints.

We have developed several strategies that govern our business decisions in the increasingly competitive telecommunications industry. Among them, we will strengthen our leadership position throughout our nine-state wireline service territory by (a) enhancing and building our brand strength and distribution channels; (b) seeking approval to provide wireline long distance and video services directly or through affiliates; (c) controlling costs; and (d) developing and enhancing joint marketing efforts with BellSouth's domestic wireless business.

We market our services and products under the BellSouth brand name to give them a clear, consistent identity in the marketplace. BellSouth believes that its brand name is widely recognized and held in high esteem by its customers. A primary marketing strategy is to enhance the recognition and reputation of this brand throughout our service territory by jointly marketing our services and products with special attention to each customer base. BellSouth's goal is for its brand name to be synonymous with quality service and state-of-the-art technology. BellSouth advertises in the various media in its territory, in connection with major events, such as the Super Bowl, PGA tournaments, Atlanta Braves baseball games and NASCAR events, and through its affiliation with several professional and collegiate sports organizations, which offer BellSouth a broad platform to showcase its services and products.

BUSINESS OPERATIONS

GENERAL

We are the predominant telephone service provider in the nine-state region comprising the southeastern US. We provide wireline communications services, including local exchange, network access and intraLATA long distance services. These operations generated 93% of our total operating revenues for 1999 and 94% for 1998 and 1997. Total equivalent access lines, which include traditional switched access lines as well as digital and data transmission lines, increased 15.7% over the prior year to 44,852,000 at December 31, 1999. This growth is attributable to increasing demand for high-capacity digital and data services, continued economic expansion in the region and secondary access lines ordered by existing customers.

While we provide telephone service to the majority of the metropolitan areas in the southeastern US, there are many localities and some sizable geographic areas within the region that are served by nonaffiliated telephone providers. In addition, we are facing increasing competition for local and intraLATA business customers, and to a lesser extent, residential customers, within our territory from both wireless and competing wireline telephone companies and cable television operators.

We have organized our marketing efforts to parallel our four major customer bases: consumer, small business, large business and interconnection services.

- *Consumer.* This group serves the largest segment of the market within our region, the residential customer. While traditional telephone service remains the core of this market, customer demands are rapidly broadening to include an expanded range of services, from convenience features such as Caller ID, Call Forwarding and Voice Mail, to additional lines, dial-up access to the Internet, high-speed connectivity through digital subscriber lines and video services.
- *Small Business.* Our small business services group focuses on providing advanced voice, data and networking solutions to small and medium-sized businesses. We offer a full complement of voice and enhanced services to this target market as well as specific solutions for meeting the increasing demand for Internet and other data services.
- *Large Business.* Our BellSouth Business Systems group provides a full range of highly specialized services and products to large and complex business customers. In addition to telephone lines, product and service offerings to these customers include Internet access, private networks, high-speed data transmission, conferencing and industry-specific communications configurations. We are also meeting big business' electronic commerce requirements with products and services such as frame relay services, web hosting and Internet/intranet connectivity.
- *Interconnection Services.* This unit markets interconnection to our network and other related wholesale services to our competitors in the retail markets. The unit markets to both affiliated and nonaffiliated customers in six carrier markets: wireless service providers, competitive local exchange carriers (CLECs), competitive switched and special access providers, long distance carriers, information service providers and public payphone service providers. Other services provided to these carriers include voice, data and video transmission, as well as advanced products, transport, interconnection and vertical services.

Customers in all the above categories are increasingly demanding bundled offerings of two or more of our service offerings, and we offer a wide array of communications services consisting of combinations and prices responsive to our customers' needs.

LOCAL SERVICE

Local service revenues accounted for approximately 63% of our total operating revenues for 1999, 61% for 1998 and 60% for 1997. Local service operations provide lines from telephone exchange offices to customers' premises for the origination and termination of telecommunications, including the following:

- basic dial-tone local telephone service provided through the regular switched network;
- dedicated private line facilities for voice and special services, such as transport of data and video;
- switching services for customers' internal communications through our facilities;
- services for data transport that include managing and configuring special service networks; and
- dedicated low- or high-capacity public or private digital networks.

We also offer various convenience features, such as Caller ID, Call Waiting, Call Return and 3-Way Calling, on a monthly subscription or per-use basis. Additional local service revenues are derived from charges for inside wire maintenance contracts, voice messaging service, information and directory assistance and public payphone services.

NETWORK ACCESS

We provide network access and interconnection services by connecting the equipment and facilities of our subscribers with the communications networks of long distance carriers, CLECs, competitive switched and special access providers, and wireless providers. These connections are provided by linking these carriers and subscribers through either our public switched network or dedicated private lines furnished by us.

Network access charges, which are payable by long distance carriers, CLECs, wireless providers and end-user subscribers, provided approximately 27% of our total operating revenues for 1999, 28% for 1998 and 29% for 1997. Historically, network access charges

paid by long distance carriers have been structured so that they subsidize the cost of providing local residential service to rural and other high-cost areas. In recent years, however, the FCC has modified this structure significantly to reduce the subsidy. (See "Regulation—Network Access.")

LONG DISTANCE

IntraLATA long distance services provided approximately 3% of our total operating revenues for 1999, 4% for 1998 and 5% for 1997. These services include the following: service beyond the local calling area; Wide Area Telecommunications Service (WATS or 800 services) for customers with highly concentrated demand; and special services, such as transport of data and video. In recent years, these revenues have decreased as competition for such customers has intensified and as more customers have subscribed to wider local area calling plans. Long distance revenues from intraLATA calls are expected to continue to decline.

DIGITAL AND DATA

A key driver in our growth in local service and network access revenues is the provision of digital and data services to all of our customer groups. Revenues from these services were $2.7 billion for 1999, $2.0 billion for 1998 and $1.4 billion for 1997, and, depending on the type of service provided, are recorded as local, access, long distance or other revenues. These services and products are provided primarily over non-switched access lines that typically have significantly greater capacity per line than a traditional switched access line. These lines are well suited for high-capacity applications that previously could not be provided over traditional switched access lines. Uses of these lines include bulk data transmission, video conferencing, automated teller machines, check/credit card authentication, multimedia and interconnection with wireless networks.

We believe that the data telecommunications business will eventually become substantially larger than the traditional voice telephony market, and that we must significantly expand our operations in the data communications market. Data communications provided over wireline facilities, however, are generally subject to the same laws and regulations as fixed line voice communications.

We have continuously updated our network with new advances in digital technology. Our deployment of ATM (asynchronous transfer mode) based broadband services and existing fiber-to-the-curb (FTTC) systems enables us to provide high-speed Internet access and entertainment services. ATM technology is a packet-switched technology using ATM switches and fiber optics to simultaneously transport voice, data, imaging and video data. We have deployed nearly 400 Frame Relay and ATM switches throughout the region.

Since 1995, fiber optics has been our technology of choice for servicing new housing developments. Currently, 95 percent of our customers in our top 30 markets and 85 percent of all customers are within 12,000 feet of fiber. Nearly 500,000 homes are now served by FTTC systems. Of these, some 200,000 will have access to high-speed Internet and entertainment services provided by an integrated fiber-in-the-loop architecture (IFITL), which we began deploying in Atlanta and South Florida during 1999. Integrated fiber also enables the delivery of 70 channels of analog TV and 160 channels of digital entertainment in Atlanta and South Florida.

We have deployed ADSL (asymmetrical digital subscriber line) which provides Internet access speeds up to 1.5 Mbps (Megabits per second), 30 times faster than today's fastest dial-up modems. We offer ADSL in 31 markets and ended 1999 with 30,000 customers. Access is currently available to over 7 million access lines and we plan to increase this to 11.5 million by the end of 2000. In January 2000, we began offering a self-install kit for ADSL in seven cities and announced a partnership with Darwin Networks to expand ADSL offerings to additional areas in the southeastern US.

OTHER

Other revenues accounted for approximately 7% of our total operating revenues for 1999, 7% for 1998 and 6% for 1997. Other revenues are comprised primarily of billing and collection services for long distance carriers, customer premises equipment sales and maintenance services, provision of unbundled network elements to competitors, enhanced consumer white pages listings, and interconnection charges to wireless carriers.

Other also includes our offering of BellSouth.net's dial-up and dedicated Internet and intranet connections to consumers and businesses. This service is deployed on local Internet Protocol (IP) networks across the southeastern US. Customers are provided with a variety of public-switched and dedicated IP networking capabilities to meet their data communications, electronic commerce, web design and hosting and customer network management needs. BellSouth provided Internet services to approximately 680,000 customers at December 31, 1999. We expect continued strong growth associated with our alliance with MyWay.com, and Internet portal operated by CMGI.

REGULATION

LOCAL SERVICE

We are subject to regulation of our local services by a state authority in each state where we provide intrastate telecommunications services. Such regulation covers prices, services, competition and other issues.

Traditionally, our rates were set at levels that were anticipated to generate revenues sufficient to cover allowed expenses and to provide an opportunity to earn a fair rate of return on capital investment. Such a regulatory structure, generally known as rate of return regulation, was acceptable in a less competitive era. However, the regulatory processes have changed in response to the increasingly competitive telecommunications environment.

Under the first generation of alternative regulation, generally known as incentive regulation, economic incentives were provided to lower costs and increase productivity through the potential availability of "shared" earnings over a benchmark rate of return. Generally, when levels above targeted returns were reached, earnings were "shared" by providing refunds or price reductions to customers.

Under the next generation of alternative regulation, generally known as price regulation, the state regulatory commissions or state legislatures established maximum prices that could be charged for certain telecommunications services. While such plans limit the amount of increases in prices for specified services, they enhance BST's ability to adjust prices and service options to respond more effectively to changing market conditions and competition and provide an opportunity to benefit more fully from productivity enhancements. The majority of these plans have price cap provisions in effect on basic local exchange services during the early years with provisions for inflation-based price increases in later years.

While some plans are not subject to either review or renewal, other plans contain specified termination dates and/or review periods. The plans in Kentucky, Louisiana and Mississippi were reviewed in 1999. In Kentucky, the review resulted in our proposing certain changes to the existing plan that remain under consideration by the Commission. In Louisiana, the existing plan was extended and the cap on interconnection services was extended from 3 to 5 years. In Mississippi, the review did not result in any changes to the existing plan. We expect that the plan in North Carolina will be reviewed prior to June 2002. Upon review or renewal, a regulatory commission could require substantial modifications to prices and other terms of these plans.

NETWORK ACCESS

The FCC regulates rates and other aspects of interstate network access services through its price cap and access charge rules. State regulatory commissions have jurisdiction over the provision of network access to the long distance carriers to complete intrastate telecommunications.

Historically, network access charges paid by long distance carriers have been set at levels that subsidize the cost of providing local residential service. The 1996 Act requires that the FCC identify the local service subsidy implicitly provided by such network access charges, provide for the removal of such subsidy from network access rates, arrange for a Universal Service Fund to ensure the continuation of service to high-cost, low-income service areas, and develop the arrangements for payments into that fund by all carriers.

Price Caps

The FCC's price cap plan limits aggregate price changes to the rate of inflation minus a productivity offset, plus or minus other cost changes recognized by the FCC. In May 1997, the FCC adopted orders regarding revisions to the price cap plan, access charge reform and the establishment of the Universal Service Fund. The orders on the price cap plan and access charge reform resulted in access rate reductions related to per-minute-of-use charges and increases to per-line charges. We have been pricing our services based on a 6.5% productivity factor, which means that price increases could only occur to the extent that the Gross Domestic Product Price Index of the US (the Index) increased by greater than 6.5% over an annual period. If the Index increases by less than 6.5%, we would reduce prices. Interstate prices have been decreasing over the last few years as a result of low inflation.

In May 1999, the United States Court of Appeals for the District of Columbia Circuit overturned the FCC's order establishing the 6.5% productivity factor and remanded the matter to the FCC. In November 1999, the FCC initiated a rulemaking proceeding to review the 6.5% productivity factor. Any changes to the productivity factor would affect the rate of annual price changes for interstate access, and any increase in this factor would result in reductions of network access charges paid to us by long distance carriers, subscribers or both.

Access Charge Reform

The FCC's 1997 network access charge reform order resulted in several changes to the existing interstate

network access rate structure. The reforms are designed to move network access charges, over time, to more economically efficient levels and to create more efficient rate structures. Non-traffic-sensitive costs, that were previously recovered on a per-minute-of-use basis, were changed to be recovered on a flat-rate, per-line basis. As part of this plan, subscriber line charges (SLCs) were increased. In addition, a new presubscribed long distance carrier charge (PICC) was established during 1998 and is charged to long distance carriers for recovery of non-traffic-sensitive costs not recovered through SLCs. As SLC and PICC levels are increased over time, usage charges are reduced. These charges were established for primary residence and single-line business access lines, non-primary residence access lines and multi-line business access lines. We believe that the net effect of these changes has been substantially revenue-neutral.

Universal Service

The universal service order established new funding mechanisms for high-cost and low-income service areas. We began contributing to the new funds on January 1, 1998 and are allowed recovery of our contributions through increased interstate network access charges.

In October 1999, the FCC announced the details of its universal service mechanism for non-rural carriers serving high-cost areas to ensure that customers in those areas receive telephone service at affordable rates. We expect to receive support for service to residents in Alabama, Kentucky, Mississippi and South Carolina. We believe the net financial effect of the new arrangement will not be material.

The order established significant discounts to be provided to eligible schools and libraries for all telecommunications services, internal connections and Internet access. The order also established support for rural health care providers so that they may pay rates comparable to those that urban health care providers pay for similar services. Industry-wide annual costs of the program, estimated at approximately $2.3 billion, are to be funded out of the Universal Service Fund. Local and long distance carriers' contributions to the education and health care funds would be assessed by the fund administrator on the basis of their interstate end-user revenues.

INTERLATA LONG DISTANCE SERVICE

As a result of the 1996 Act, we and the other Baby Bells are freed from the judicial restrictions of the 1983 settlement that generally prohibited the provision of interLATA long distance communications throughout our wireline service territories and elsewhere. However, the 1996 Act establishes new restrictions on providing interLATA long distance communications in our wireline service area and procedures for the removal of the new restrictions. Companies may apply to the FCC on a state-by-state basis to offer in-region interLATA wireline service, and the FCC must act on each such application within 90 days. The FCC must grant such application if it determines that the applicant:

(a) has met a competitive checklist;

(b) has shown (i) the presence of a facilities-based provider offering both residential and business local services (Track A) or (ii) if there is no such provider, a statement that has been approved or permitted to take effect by state regulatory authorities of the terms under which it would be willing to interconnect with a CLEC (Track B);

(c) will operate in accordance with the separate affiliate requirement; and

(d) has presented an application consistent with the public interest.

The FCC is required to consult with state regulatory authorities and the Justice Department when reviewing the application.

We believe that, in order to remain competitive, we must aggressively pursue a corporate strategy of expanding our service offerings beyond our traditional businesses and markets. These offerings include interLATA voice, information and data communications. We plan to begin offering interLATA wireline service in each of our southeastern US states as soon as the FCC approves our application for each state. We have received favorable determinations from the regulatory commissions in Louisiana, Mississippi and South Carolina, but the FCC has rejected our applications to provide in-region interLATA service.

During December 1999, the FCC approved Bell Atlantic's request to enter the long-distance market in New York, making it the first Baby Bell to obtain interLATA relief in any state. We are currently conducting third-party tests of our operations support systems in Georgia and expect to submit to the FCC in the second quarter of 2000 a petition to offer long-distance service in that state. In addition, the Florida Public Service Commission in December 1999 approved a third-party testing plan for our systems in Florida that we expect to be completed by mid-2000.

BellSouth has a three-pronged approach to gaining authorization to provide in-region interLATA service: (a) continue to modify its facilities and operations support systems to facilitate competition and aggressively seek approvals from the FCC and state commissions; (b) seek judicial review of adverse

decisions which it believes to be erroneous; and (c) participate in actions by Congress to urge the FCC to implement the 1996 Act in a timely fashion. Because of the scrutiny of interLATA applications by the FCC and the Justice Department, the time required to obtain judicial review of adverse decisions, and the possible challenges by the other carriers of any approved applications or proposed or enacted legislation, it is uncertain when BellSouth will be authorized to commence interLATA service over our wireline network.

COMPETITION

LOCAL SERVICE

The 1996 Act requires the elimination of state legislative and regulatory barriers to competition for local telephone service, subject only to competitively neutral requirements to preserve and advance universal service, protect the public safety and welfare, maintain the quality of telecommunications services and safeguard the rights of customers. The 1996 Act also includes requirements that incumbent local exchange carriers (ILECs), such as BST, negotiate with other carriers for interconnection, provide UNEs (unbundled network elements), pay access fees for local calls terminating on the network of a carrier other than the originating carrier, resell telecommunications services and charge for collocation of equipment in ILEC facilities. If a negotiated agreement cannot be reached, either party may seek arbitration with the state regulatory authority or the FCC if the state fails to act. If UNE rates are disputed, the arbitrator must set rates based on cost, which may include a reasonable profit. ILECs are also required to negotiate to provide their retail services at wholesale rates for the purpose of resale by competing carriers. If agreement cannot be reached, the arbitrator must set the wholesale rates at the ILEC's retail rates, less costs that are avoided. We have executed numerous interconnection or resale agreements with such carriers. Many of these agreements expired during 1999 and are being renegotiated. At December 31, 1999, we have provisioned approximately 665,000 equivalent access lines to such carriers for resale, an increase of 145,000 since December 31, 1998.

The state public service commissions to which we are subject have granted numerous CLEC applications for authority to offer local telephone service. As a result, substantial competition has developed for our business customers, which provide a greater concentration of higher margin revenues than do our residential customers. Competitors include major carriers which resell our local services, use UNEs or provide services over their own facilities.

An increasing number of voice and data communications networks utilizing fiber optic lines have been and are being constructed by telecommunications providers in all major metropolitan areas throughout our wireline service territory. These networks offer certain high-volume users a competitive alternative to our public and private line offerings. Furthermore, wireless services, such as cellular, personal communications service (PCS) and paging services, and Internet services (including all of such services of BellSouth) increasingly compete with wireline communications services. Such wireless services are provided by a number of well-capitalized entities in most of our markets.

As technological and regulatory developments make it more feasible for cable television networks to carry data and voice communications, we will face increased competition within our region from cable television ventures. AT&T has purchased extensive cable systems and has announced plans to upgrade those systems to offer two-way telephony services. AT&T has also formed joint ventures and announced plans to expand this initiative with other cable television companies to provide telephony nationwide.

FCC Interconnection Order

In connection with the requirements of the 1996 Act, in August 1996, the FCC released an order adopting rules governing interconnection and related matters. With regard to setting the price of interconnection between ILECs and other carriers, the FCC has jurisdiction to set pricing standards to be implemented by the state commissions. The FCC has prescribed a forward-looking economic cost approach for pricing interconnection and unbundled network elements. That methodology is under review by the US Court of Appeals for the Eighth Circuit.

Access to proprietary network elements can be required only when necessary or, in the case of a non-proprietary element, when the failure to provide access would impair the ability of the requesting carrier to provide services. The FCC has issued an order adopting a revised list of network elements that ILECs must make available to competitors.

The FCC's list, together with its regulations prohibiting ILECs from separating currently combined elements, means that ILECs will be required to provide certain combinations of network elements that competitors may substitute for certain higher priced ILEC services. This substitution could lead to further increases in competition for certain local exchange access services and materially reduce ILEC's access charge revenues. The FCC determined that, for an interim period, it would not apply these new rules to allow the

substitution of certain network elements for special access services, and announced that it will conduct a further inquiry into the use of network element combinations to provide certain special access services.

The FCC's revised list does not, however, require ILECs to make certain network elements used to provide advanced data services available to competitors, except in very limited circumstances. This outcome removes a disincentive to ILEC investment in these rapidly expanding services.

The FCC has adopted an "all elements" rule, which allows competing carriers to provide local telephone service relying solely on the elements in an ILEC's network, and has refused to impose a requirement of facility ownership on carriers that seek to lease network elements. The FCC has also forbidden ILECs from separating already combined network elements before leasing them to a CLEC and adopted a "pick and choose" rule which requires that ILECs make available to requesting CLECs contractual provisions, including related rates and terms, contained in any other agreements that have been previously approved by the state commission for that same state. Exceptions are allowed when the ILEC can prove to the state commission that providing the particular item requested is either more costly than providing it to the original carrier or is technically infeasible. These rulings may make it easier for a CLEC to compete with us.

In complying with the technical requirements of interconnection, we are incurring, and expect to continue to incur, significant costs associated with the facilitation of interconnection. We incurred approximately $416 million of costs associated with these efforts in the year ended December 31, 1999. Of this amount, approximately $295 million was expensed as incurred, and the remainder was capitalized. Total costs incurred through December 31, 1999 were approximately $1.1 billion.

In May 1998, the FCC adopted an order that will allow telecommunications carriers, such as us, to recover over five years, their carrier-specific costs of implementing long-term number portability, which allows customers to retain their local telephone numbers in the event they change local carriers. The order allows for such cost recovery in the form of a surcharge from customers to whom number portability is available. The surcharge began during second quarter 1999. It remains unclear to what degree, if any, we will be compensated for the noncarrier-specific costs of interconnection.

Federal and state policies strongly favor further changes to the networks and business operations of ILECs to encourage local service competition, and regulators have stated that such changes must be made before they will allow the Baby Bells to provide interLATA long distance services within their local service territories. Therefore, BellSouth expects that local service competition will steadily increase. While competition for local service revenues could adversely affect BellSouth's results of operations, BellSouth is working to support the opening of local markets to competition by facilitating interconnection of its facilities and systems with those of CLECs. These actions, among other things, should allow BellSouth to qualify to offer in-region interLATA service as contemplated in the 1996 Act. (See "Regulation—InterLATA Long Distance Service".)

NETWORK ACCESS

FCC rules require that we offer expanded interconnection for interstate special and switched network access transport. As a result, we must permit competitive carriers and customers to terminate their transmission lines on our facilities in our central office buildings and other locations through collocation arrangements. The effects of the rules are to increase competition for network access transport. Furthermore, long distance carriers are increasingly connecting their lines directly to their customers' facilities, bypassing our networks and thereby avoiding network access charges entirely. In addition, commercial applications of Internet telephony are being developed. This medium could attract substantial interLATA traffic because of its lower cost structure, due to the fact that FCC rules do not currently impose access charges on most Internet communications.

LONG DISTANCE

A number of companies compete with us in the southeastern US region for intraLATA long distance business by reselling long distance services obtained at bulk rates from us or providing long distance services over their own facilities. Effective February 1999, we implemented 1+ dialing parity in the last of the nine states in our region. This feature allows customers to choose a competing interLATA long distance carrier without having to dial a special access code.

The 1996 Act permits Baby Bells to offer interLATA long distance service outside of the states containing their local wireline service territories. These and other carriers have announced plans to compete for such interLATA long distance service in our territory. AT&T, MCI WorldCom, Sprint and a number of other carriers, including other Baby Bells, currently provide long distance service to our local service customers.

FRANCHISES AND LICENSES

Our local exchange business is typically provided under certificates of public convenience and necessity granted pursuant to state statutes and public interest findings of the various public utility commissions of the states in which we do business. These certificates provide for franchises of indefinite duration, subject to the maintenance of satisfactory service at reasonable rates. The 1996 Act provides that these franchises be non-exclusive.

RESEARCH AND DEVELOPMENT

We conduct research and development activities internally and through external vendors, primarily Telcordia Technologies. Telcordia provides research and development and other services to BellSouth and the other Baby Bells. We have contracted with Telcordia for ongoing support of engineering and systems. In addition, we are a member of the National Telecommunications Alliance, an organization which supports our commitment to national security and emergency preparedness.

EMPLOYEES

At December 31, 1999, we employed approximately 64,200 persons. About 75% of our total employees at December 31, 1999 were represented by the Communications Workers of America (the CWA), which is affiliated with the AFL-CIO. In September 1998, members of the CWA ratified new three-year contracts with us, effective August 9, 1998. The contracts include basic wage increases totaling 12.39% over the three years covered by the contracts. In addition, the agreement provides for a standard award of between 2% and 2.5% of base salary and overtime compensation, which is subject to adjustment based on company performance measures for plan years 1999 and 2000. Other terms of the agreement include pension band increases and pension plan cash balance improvements for active employees.

PROPERTIES

GENERAL

Our properties do not lend themselves to description by character or location of principal units. Our investment in property, plant and equipment consisted of the following at December 31:

	1998	1999
Outside plant	45%	44%
Central office equipment	40	41
Land and buildings	6	6
Furniture and fixtures	5	5
Operating and other equipment	3	3
Plant under construction	1	1
	100%	100%

Outside plant consists of connecting lines (aerial, underground and buried cable) not on customers' premises, the majority of which is on or under public roads, highways or streets, while the remainder is on or under private property. We currently self-insure all of our outside plant against casualty losses. Central office equipment substantially consists of digital electronic switching equipment and circuit equipment. Land and buildings consist principally of central offices. Operating and other equipment consists of embedded intrasystem wiring (substantially all of which is on the premises of customers), motor vehicles and other equipment. Central office equipment, buildings, furniture and fixtures and certain operating and other equipment are insured under a blanket property insurance program. This program provides substantial limits of coverage against "all risks" of loss including fire, windstorm, flood, earthquake and other perils not specifically excluded by the terms of the policies.

Substantially all of the installations of central office equipment are located in buildings and on land, which we own. Many garages, administrative and business offices and telephone service centers are in leased quarters.

CAPITAL EXPENDITURES

Capital expenditures consist primarily of (a) gross additions to property, plant and equipment having an estimated service life of one year or more, plus the incidental costs of preparing the asset for its intended use, and (b) gross additions to capitalized software.

The total investment in property, plant and equipment has increased from $41.7 billion at January 1, 1995 to $52.5 billion at December 31, 1999, not including deductions of accumulated depreciation. Significant additions to property, plant and equipment will be required to meet the demand for telecommunications services and to continually modernize and improve such services to meet competitive demands. We project that continued population and economic expansion will occur in certain growth centers within our nine-state area during the next five to ten years. Expansion of the network will be needed to accommodate such projected growth.

Our capital expenditures for 1995 through 1999 were as follows:

	Millions
1995	$3,110
1996	$3,200
1997	$3,432
1998	$3,502
1999	$4,626

We project capital expenditures of approximately $4.0 to $4.4 billion for 2000. In 1999, we generated substantially all of our funds for capital expenditures internally. In 2000, projected capital expenditures are expected to be financed in the same manner.

ENVIRONMENTAL MATTERS

We are subject to a number of environmental matters as a result of our operations and the shared liability provisions related to the divestiture from AT&T. As a result, we expect that we will be required to expend funds to remedy certain facilities, including those Superfund sites for which we have been named as a potentially responsible party, for the remediation of sites with underground fuel storage tanks and other expenses associated with environmental compliance. At December 31, 1999, our recorded liability, related primarily to remediation of these sites, was approximately $30 million.

We monitor our operations with respect to potential environmental issues, including changes in legally mandated standards and remediation technologies. Our recorded liability reflects those specific issues where remediation activities are currently deemed to be probable and where the cost of remediation is estimable. We continue to believe that expenditures in connection with additional remedial actions under the current environmental protection laws or related matters would not be material to our results of operations, financial position or cash flows.

LEGAL PROCEEDINGS

Following the enactment of the 1996 Act, we entered into interconnection agreements with various CLECs providing for, among other things, the payment of reciprocal compensation for local calls initiated by the customers of one carrier that are completed on the network of the other carrier. Numerous CLECs claim entitlement from us for compensation associated with dial-up calls originating on our network and connecting with Internet service providers (ISPs) served by the CLECs' networks. We have maintained that dial-up calls to ISPs are not local calls for which terminating compensation is due under the interconnection agreements.

In February 1999, the FCC issued a decision that such ISP traffic does not terminate at the ISP and, therefore, is interstate in nature, rather than local. The FCC stated, however, that it would not interfere with prior state commissions' decisions regarding this matter. The courts and state regulatory commissions in our operating territory that have considered the matter have, in most cases, ruled that we are responsible for paying reciprocal compensation on these calls. In certain instances, we have been ordered to pay this compensation pending appeal. In other cases, the ruling bodies have determined that we do not owe reciprocal compensation for these calls. We have appealed the adverse decisions and continue to believe that we have a good legal basis for our position that such reciprocal compensation is not owed to the CLECs. For those cases where we believe it is probable that we have incurred a liability, we have recorded an estimate of the amount owed. At December 31, 1999, the exposure related to unrecorded amounts withheld from CLECs was approximately $300 million, including accrued interest.

In a related matter, at least one CLEC is claiming terminating compensation of approximately $165 million for service arrangements that we do not believe involve "traffic" under our interconnection agreements. We have filed a complaint with the state regulatory commission asking that agency to declare that we do not owe reciprocal compensation for these arrangements. The CLEC has filed a complaint with the state regulatory commission asking it to order us to pay the disputed amounts. Hearings on this matter were held in August 1999 and a decision is pending. We believe that we have a good legal basis for our position and, accordingly, no provision has been recorded for this claim in our financial statements.

We are also subject to claims arising in the ordinary course of business involving allegations of personal injury, breach of contract, anti-competitive conduct, employment law issues, regulatory matters and other actions. While complete assurance cannot be given as to the outcome of any legal claims, we believe that any financial impact would not be material to our results of operations, financial position or cash flows. (See Note N to the consolidated financial statements.)

PART II

SELECTED FINANCIAL AND OPERATING DATA
(DOLLARS IN MILLIONS)

At December 31 or for the year ended	1995[a]	1996	1997[b]	1998	1999
Operating revenues	$14,397	$14,582	$15,132	$16,372	$17,478
Operating expenses	11,622	10,888	10,959	11,773	12,533
Operating income	2,775	3,694	4,173	4,599	4,945
Income before extraordinary losses	1,410	1,996	2,313	2,572	2,770
Net income (loss)	$ (1,386)	$ 1,996	$ 2,304	$ 2,572	$ 2,770
Total assets	$23,933	$22,967	$23,141	$23,819	$25,295
Long-term debt	$ 6,851	$ 6,671	$ 5,489	$ 6,516	$ 6,135
Shareholder's equity	$ 7,953	$ 8,232	$ 8,505	$ 8,737	$ 8,805
Total employees	68,585	62,425	57,619	60,561	64,160

(a) 1995 results include charges for the discontinuance of SFAS No. 71 and the refinancing of long-term debt issues which reduced net income by $2,796. 1995 results also include a work force reduction charge which increased operating expense by $1,082 and reduced net income by $663.

(b) 1997 results include the effect of a regulatory settlement in South Carolina, which reduced operating revenues by $72 and net income by $47. 1997 results also include charges related to the early extinguishment of long-term debt issues which reduced net income by $9.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF RESULTS OF OPERATIONS
(DOLLARS IN MILLIONS)

In this discussion, BellSouth Telecommunications, Inc. and its consolidated subsidiaries are referred to as "we" or "BST".

We are a wholly-owned subsidiary of BellSouth Corporation (BellSouth) which provides local exchange, network access and intraLATA long distance services to business and residential customers in a nine-state area located in the southeastern US. For a more complete understanding of our industry, the drivers of our business, and our current period results, you should read this discussion in conjunction with our consolidated financial statements, including the related notes.

Consolidated Results of Operations

Our reported results include the effect of charges from an affiliated company for use of intellectual property rights related to trademarks, service marks and patents. When compared to 1998, these charges increased our reported 1999 operational and support expenses by $570, and reduced our reported net income by $342. To assist your understanding of the results of operations, the following discussion excludes the effect of these charges, which are eliminated in the consolidated financial results of our parent company, BellSouth.

Key financial and operating data for 1999 and 1998, adjusted to exclude the effect of the charges discussed above, are as follows:

	1998	1999	% Change
Results of Operations			
Revenues	$ 16,372	$ 17,478	6.8
Expenses	$ 11,527	$ 11,716	1.6
Operating income	$ 4,845	$ 5,762	18.9
Net income	$ 2,732	$ 3,273	19.8
EBITDA[a]	$ 8,201	$ 9,149	11.6
EBITDA margin	50.1%	52.3%	+220bps
Key Indicators			
Access line counts (000's):			
Switched access lines:			
Residential	16,457	16,958	3.0
Business	7,294	7,254	(0.5)
Other	274	265	(3.3)
Total switched access lines	24,025	24,477	1.9
Access line equivalents[b]	14,744	20,375	38.2
Total equivalent access lines	38,769	44,852	15.7
Access minutes of use (millions)	104,373	110,088	5.5
Long distance messages (millions)	784	644	(17.9)
Digital and data services revenues	$ 2,041	$ 2,687	31.6
Convenience feature revenues	$ 1,636	$ 1,911	16.8

(a) EBITDA represents income before net interest expense, income taxes, depreciation and amortization and other income, net. We present EBITDA because it is a widely accepted financial indicator used by certain investors and analysts to analyze and compare companies on the basis of operating performance and because we believe that EBITDA is an additional meaningful measure of performance and liquidity. EBITDA does not represent cash flows for the period, nor is it an alternative to operating income (loss) as an indicator of operating performance. You should not consider it in isolation or as a substitute for measures of performance prepared in accordance with generally accepted accounting principles. The items excluded from the calculation of EBITDA are significant components in understanding and assessing our financial performance. Our computation of EBITDA may not be comparable to the computation of similarly titled measures of other companies. EBITDA does not represent funds available for discretionary uses.

(b) Access line equivalents represent a conversion of non-switched data circuits to a switched access line basis and is presented for comparability purposes. Equivalents are calculated by converting data circuits (ISDN, ADSL, DS0, DS1 and DS3) and SONET-based (optical) services (OC12 to OC48) to the equivalent of a switched access line based on transport capacity. While the revenues generated by access line equivalents have a directional relationship with these counts, growth rates cannot be compared on an equivalent basis.

Overview

Our 1999 results reflect strong revenue growth driven by growth in digital and data services revenues when compared to 1998. Expense growth was driven by increased spending for customer service and network support functions and expenses for development and promotion of new business initiatives including high-speed data and Internet service offerings.

In addition, on January 1, 1999, we adopted a new accounting standard on capitalization of internal-use software. The impact of capitalizing software costs under the new standard was a benefit of $213 to net income.

Operating Revenues

	1998	1999	% Change
Operating revenues:			
Local service	$10,033	$10,887	8.5
Network access	4,632	4,761	2.8
Long distance	713	608	(14.7)
Other	994	1,222	22.9
Total operating revenues	$16,372	$17,478	6.8

Local service

Local service revenues increased $854 during 1999, attributable to growth in switched access lines and strong demand for digital and data services and convenience features.

During 1999, total equivalent access lines increased 15.7%. Residential access lines rose 3.0%, driven by

economic growth in our nine-state area as well as demand for secondary residence lines. Secondary residence lines are used for home office purposes, Internet access and children's phones, and accounted for 51.1% of the growth in residential access lines during 1999. Business access lines, which include both switched access lines and data circuits, grew 25.4% during 1999 propelled by expanding demand for our digital and data services. Switched business access lines decreased 0.5% during 1999 as an increasing number of new and existing business customers migrate to our high-capacity data line offerings.

Revenues from optional convenience features such as custom calling features (e.g., Caller ID, Call Waiting, Call Return) and voice mail service increased $275 (16.8%) during 1999. These increases were driven by growth in convenience feature usage through our Complete Choice® package, a one-price bundled offering of over 20 features, and by positive rate impacts on these features.

Increased penetration of extended local area calling plans also increased local service revenues by approximately $182 during 1999. Also contributing to the increase in 1999 revenues were net rate impacts of $163. The 1999 rate impacts were attributable to sharing accruals recorded in 1998 as well as positive rate adjustments in 1999 on convenience features, directory assistance, and inside wire service.

Network access

Network access revenues grew $129 in 1999 due largely to higher demand. Access minutes of use rose 5.5%. Increases in switched access lines and promotional activities by long distance carriers continue to be the primary drivers of the increase in minutes of use. The introduction of 1+ dialing parity for intraLATA long distance calls in all states in our wireline territory is also contributing to growth in minutes.

The growth rate in total minutes of use continues to be negatively impacted by the trend of business customers migrating from traditional switched circuits to higher capacity data line offerings which are fixed-charge based rather than per-minute-of-use based. Revenues from these data services grew approximately $155 in 1999 as Internet service providers and high-capacity users increased their use of our network. The growth rate in switched minutes of use has also been negatively impacted by competition from CLECs whose traffic completely bypasses our network.

Volume-related growth was largely offset by net rate impacts that decreased revenues by $158 in 1999. These reductions are primarily related to the FCC's access reforms and productivity factor adjustment. The reductions were partially offset by recoveries of local number portability costs in 1999.

Long distance

The decrease during 1999 is primarily attributable to a decrease in long distance message volumes of 17.9%. Partially offsetting these decreases were increased revenues from the provision of digital and data services.

Also included in long distance are revenues which we receive from long distance carriers for interconnection to our public payphones. These revenues decreased in 1999 as a result of a regulatory ruling on the rates charged to the long distance carriers.

Competition from alternative intraLATA long distance carriers and increased penetration of extended local area calling plans continue to have an adverse impact on our long distance message volumes. Effective February 1999, we implemented 1+ dialing parity in the last of the nine states in our region, which allows customers to choose a competing intraLATA long distance carrier without having to dial a special access code. We believe that competition in the intraLATA long distance market will continue to adversely impact long distance message volumes and revenues.

Other

The increase in revenues in 1999 is attributable to higher revenues from sales of customer premises equipment, resale of paging products and services, sales of unbundled network elements, collocation of competing carriers' equipment in our facilities, demand for our Internet access offering and interconnection charges to wireless carriers. The higher revenues also represent increased business activity with other BellSouth entities.

We increased subscribers to our BellSouth.net(sm) service 82% during 1999 and ended the year with over 680,000 subscribers. We expect continued strong growth associated with an alliance with MyWay.com, an Internet portal operated by CMGI.

Operating Expenses

	1998	1999	% Change
Operational and support expenses	$ 8,171	$ 8,329	1.9
Depreciation and amortization	3,356	3,387	0.9
Total operating expenses	$11,527	$11,716	1.6

Operational and support expenses

Operational and support expenses increased $158 or 1.9% during 1999. The increase was impacted favorably by the adoption of new rules on software capitalization; excluding the impact of adoption, 1999 expenses would have increased $568 (7.0%) when compared to 1998.

The increase in 1999 was attributable to labor costs driven by the addition of employees in customer service and network support functions, increases in salaries and wage rates, costs from sales of CPE and paging equipment and other increased expenses associated with higher business volumes. These increases were offset by reductions in overtime expense in customer service and network functions, and lower pension and benefit costs attributable to favorable pension plan investment returns.

Also contributing to the 1999 increase were expenses related to new data initiatives, including Asymmetric Digital Subscriber Line (ADSL) and integrated fiber-in-the-loop (IFITL), and promotional expenses related to expanding our Internet customer base. We made ADSL service available in 30 markets this year, with an addressable market of approximately 7 million access lines, and we plan to increase the market to 11.5 million access lines by the end of 2000. In January 2000, we began offering a self-install kit for ADSL in seven cities and announced a partnership with Darwin Networks to expand ADSL offerings to additional areas in the southeastern US. We are deploying IFITL in nearly all newly built neighborhoods and are also retrofitting some 200,000 existing homes in Atlanta and Miami.

Depreciation and amortization

Depreciation and amortization expense increased $31 during 1999. The increase is primarily attributable to amortization of capitalized internally developed software. While gross depreciable plant increased 4.6% during 1999, the overall composite depreciation rate has declined, resulting in flat depreciation expense.

Other Nonoperating Items

	1998	1999	% Change
Interest Expense	$ 551	$ 559	1.5
Other Income, net	$ 3	$ 20	N/M
Provision for Income Taxes	$1,565	$1,950	24.6
Effective Tax Rate	36.4%	37.3%	+90bps

Provision for income taxes

The increase in the 1999 effective tax rate was primarily attributable to items recorded during 1998 for nonrecurring transactions and adjustments related to prior year tax returns.

Financial Condition

We have committed credit lines aggregating $1,461 with various banks. There were no borrowings under the lines of credit at December 31, 1999. As of February 28, 2000, we have shelf registration statements on file with the Securities and Exchange Commission under which $1.5 billion of debt securities could be publicly offered.

Our debt to total capitalization ratio was 51.7% at December 31, 1999 compared to 47.8% at December 31, 1998. The increase is a function of increases in short-term debt attributable to higher net borrowings of commercial paper.

Market Risk

We are subject to market risks due to fluctuations in interest rates. The majority of our debt is in the form of long-term fixed rate notes and debentures with original maturities ranging from ten to one hundred years. Accordingly, fluctuations in interest rates can lead to significant fluctuations in the fair value of such debt instruments. We engage in limited hedging activity with regard to our interest rate risks.

The following table provides information, by maturity date, about our interest rate sensitive financial instruments which consist primarily of fixed rate debt obligations. Fair values for the majority of our long-term debt obligations are based on quotes from dealers.

	Fixed Rate Debt	Average Interest Rate
2000	$3,293	5.93%
2001	88	4.67
2002	14	6.30
2003	536	5.99
2004	317	6.22
Thereafter	5,193	6.69
Total Recorded Amount	$9,441	
Fair Value	$8,878	

Operating Environment and Trends of the Business

Regulation

Our future operations and financial results will be substantially influenced by developments in a number of federal and state regulatory proceedings. Adverse results in these proceedings could materially affect our revenues, expenses and ability to compete effectively against other telecommunications carriers.

Federal policies being implemented by the Federal Communications Commission (FCC) strongly favor access reform, whereby the historical subsidy for local service that is contained in network access charges paid by long distance carriers is eliminated. Unless compensatory changes are adopted, such as Universal Service Fund contribution mandates, our revenues from this source, which constituted approximately 6% of our revenues during 1999, are at risk. In addition, other aspects of access charge regulation and Universal Service Fund contribution requirements that are applicable to local service carriers such as BST are also under consideration and could result in greater expense levels or reduced revenues.

The FCC has considerable authority to establish pricing, interconnection and other policies that had once been considered within the exclusive jurisdiction of the state public service commissions. We expect the FCC to accelerate the growth of local service competition by aggressively utilizing such power.

We have petitioned the FCC for permission under the 1996 Act to offer full long distance services in South Carolina and Louisiana. The FCC has denied both petitions. We have been testing our operations support systems in Georgia and expect to file with the FCC during the second quarter of 2000. We do not know if the FCC will require further changes in our network interconnection elements and operations support systems before it will approve such petitions. These changes could result in significant additional expenses and promote local service competition. In December 1999, the FCC granted the first approval to another Baby Bell to provide in-region interLATA service.

Our intrastate prices are regulated under price regulation plans provided by statute or approved by state public service commissions. Some plans are subject to periodic review and may require renewal. These commissions generally may require price reductions and other concessions from us as a condition to approving these plans.

We are involved in numerous legal proceedings associated with state and federal regulatory matters, the disposition of which could materially impact our operating results and prospects. See Note N to the consolidated financial statements.

Competition

There are many competitive forces that impact us. The 1996 Act removed the regulatory barriers to local service competition and required incumbent carriers such as BST to open our networks to other carriers.

We expect local service competition to steadily increase, particularly with respect to business customers. While competition for local service revenues could adversely affect our results of operations, opening of local markets can favorably impact qualification to offer in-region interLATA long distance service.

We plan to compete through aggressive marketing, competitive pricing, bundled services and technical innovation. We will offer consumers a full range of services—local, long distance, Internet access and more—while remaining committed to our high level of customer service and value.

Technology

We are continually upgrading our network with digital and optical technologies, making it capable of delivering a full complement of voice and data services. This modernization of the network is critical to our success in providing the data connectivity demanded by customers and to compete with fiber networks being constructed or currently utilized by start-ups and cable companies. This effort will require investment of significant amounts of capital in the future.

Year 2000 Disclosure

In 1997, we initiated a company-wide program to ensure that our date-sensitive information, telephony and business systems, and other certain equipment

would properly recognize the Year 2000 as a result of the century change on January 1, 2000. The program focused on the hardware, software, embedded chips, third-party vendors and suppliers as well as third-party networks that were associated with the identified systems. We substantially completed the program during third quarter 1999 and our systems did not experience any significant disruptions as a result of the century change. In total, we have spent approximately $190 in external costs on this program through December 31, 1999 and do not expect to incur any significant additional costs related to Year 2000 compliance subsequent to 1999.

CWA Contracts

In September 1998, members of the Communications Workers of America (CWA) ratified new three-year contracts with us, effective August 9, 1998. The contracts include basic wage increases totaling 12.39% over the three years covered by the contracts. In addition, the agreement provides for a standard award of between 2% and 2.5% of base salary and overtime compensation which is subject to adjustment based on company performance measures for plan years 1999 and 2000. Other terms of the agreement include pension band increases and pension plan cash balance improvements for active employees.

Affiliated Transactions

We record both revenues and expenses which result from transactions with other subsidiaries of BellSouth. Revenues are generated primarily from services provided to BellSouth Advertising and Publishing Corporation, interconnection services provided to BellSouth Cellular Corporation and sales commissions charged to BellSouth Cellular Corporation for joint marketing efforts. Expenses are incurred primarily from charges for use of intellectual property, maintenance and equipment relocation services, allocations of corporate overhead expenses, and allocations of expenses from other subsidiaries of BellSouth. Related to these affiliated transactions, we recorded revenues of $308 during 1999 and $214 during 1998. We also recorded expenses related to these affiliated transactions of $1,374 during 1999 and $613 during 1998.

New Accounting Pronouncements

In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities". Among other provisions, it requires that entities recognize all derivatives as either assets or liabilities in the statement of financial position and measure those instruments at fair value. Gains and losses resulting from changes in the fair values of those derivatives would be accounted for depending on the use of the derivative and whether it qualifies for hedge accounting. The effective date of this standard was delayed via the issuance of SFAS No. 137. The effective date for SFAS No. 133 is now for fiscal years beginning after June 15, 2000, though earlier adoption is encouraged and retroactive application is prohibited. This means that the standard must be adopted by us no later than January 1, 2001. We do not expect the adoption of this standard will have a material impact on results of operations, financial position or cash flows.

Cautionary Language Concerning Forward-Looking Statements

In addition to historical information, management's discussion and analysis contains forward-looking statements regarding events and financial trends that may affect our future operating results, financial position and cash flows. These statements are based on our assumptions and estimates and are subject to risks and uncertainties. For these statements, we claim the protection of the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995.

Factors that could affect future operating results, financial position and cash flows and could cause actual results to differ materially from those expressed in the forward-looking statements are:

- a change in economic conditions in markets where we operate or have material investments which would affect demand for our services;
- the intensity of competitive activity and its resulting impact on pricing strategies and product offerings;
- protracted delay in BellSouth Corporation's entry into the interLATA long distance market;
- higher than anticipated start-up costs or significant up-front investments associated with new business initiatives;
- unanticipated higher capital spending from, or delays in, the deployment of new technologies; and
- unsatisfactory results in regulatory actions including access reform, universal service, terms of interconnection, unbundled network elements and resale rates.

This list of cautionary statements is not exhaustive. These and other developments could cause our actual results to differ materially from those forecast or implied in the forward-looking statements. You are cautioned not to place undue reliance on these forward-looking statements, which are current only as of the date of this filing. We have no obligation, and we do not intend, to publicly release the results of any revisions to these forward-looking statements to reflect events or circumstances after the date of this filing.

REPORT OF MANAGEMENT

These financial statements have been prepared in conformity with generally accepted accounting principles and have been audited by PricewaterhouseCoopers LLP, independent accountants, whose report is contained herein.

The integrity and objectivity of the data in these financial statements, including estimates and judgments relating to matters not concluded by the end of the year, are the responsibility of the management of BellSouth Telecommunications. Management has also prepared all other information included therein unless indicated otherwise.

Management maintains a system of internal accounting controls which is continuously reviewed and evaluated. However, there are inherent limitations that should be recognized in considering the assurances provided by any system of internal accounting controls. The concept of reasonable assurance recognizes that the cost of a system of internal accounting controls should not exceed, in management's judgment, the benefits to be derived. Management believes that our system does provide reasonable assurance that the transactions are executed in accordance with management's general or specific authorizations and are recorded properly to maintain accountability for assets and to permit the preparation of financial statements in conformity with generally accepted accounting principles. Management also believes that this system provides reasonable assurance that access to assets is permitted only in accordance with management's authorizations, that the recorded accountability for assets is compared with the existing assets at reasonable intervals and that appropriate action is taken with respect to any differences. Management also seeks to assure the objectivity and integrity of its financial data by the careful selection of its managers, by organizational arrangements that provide an appropriate division of responsibility and by communications programs aimed at assuring that its policies, standards and managerial authorities are understood throughout the organization. Management is also aware that changes in operating strategy and organizational structure can give rise to disruptions in internal controls. Special attention is given to controls while the changes are being implemented.

Management maintains a strong internal auditing program that independently assesses the effectiveness of the internal controls and recommends possible improvements thereto. In addition, as part of its audit of these financial statements, PricewaterhouseCoopers LLP completed a review of the accounting controls to establish a basis for reliance thereon in determining the nature, timing and extent of audit tests to be applied. Management has considered the internal auditor's and PricewaterhouseCoopers LLP's recommendations concerning the system of internal controls and has taken actions that it believes are cost-effective in the circumstances to respond appropriately to these recommendations. Management believes that the system of internal controls was adequate to accomplish the objectives discussed herein.

Management also recognizes its responsibility for fostering a strong ethical climate so that our affairs are conducted according to the highest standards of personal and corporate conduct. This responsibility is communicated to all employees through policies and guidelines addressing such issues as conflict of interest, safeguarding of our real and intellectual properties, providing equal employment opportunities and ethical relations with customers, suppliers and governmental representatives. BellSouth Telecommunications maintains a program to assess compliance with these policies.

/s/ GUY L. COCHRAN
VICE PRESIDENT,
CHIEF FINANCIAL
OFFICER AND COMPTROLLER

February 28, 2000

REPORT OF INDEPENDENT ACCOUNTANTS

BellSouth Telecommunications, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income and retained earnings and of cash flows present fairly, in all material respects, the financial position of BellSouth Telecommunications, Inc. and its subsidiaries at December 31, 1999 and 1998, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1999, in conformity with accounting principles generally accepted in the United States. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

As discussed in Note B to the consolidated financial statements, in 1999 BellSouth Telecommunications, Inc. adopted AICPA Statement of Position 98-1 and changed its method of accounting for internal-use software development costs.

/s/ PricewaterhouseCoopers LLP

Atlanta, Georgia
February 3, 2000 (except for Note P, as to which the date is February 4, 2000)

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-00649 and 333-77815) and Form S-8 (No. 333-64041) of BellSouth Telecommunications, Inc. of our report dated February 3, 2000 (except for Note P, as to which the date is February 4, 2000) relating to the financial statements, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Atlanta, Georgia
March 1, 2000

BELLSOUTH TELECOMMUNICATIONS, INC.

CONSOLIDATED STATEMENTS OF INCOME AND RETAINED EARNINGS

(IN MILLIONS)

	For the years ended December 31,		
	1999	1998	1997
Operating Revenues:			
Local service	$10,887	$10,033	$9,017
Network access	4,761	4,632	4,483
Long distance	608	713	734
Other	1,222	994	898
Total Operating Revenues	17,478	16,372	15,132
Operating Expenses:			
Operational and support expenses	9,146	8,417	7,633
Depreciation and amortization	3,387	3,356	3,326
Total Operating Expenses	12,533	11,773	10,959
Operating Income	4,945	4,599	4,173
Interest Expense	559	551	533
Other Income, net	20	3	39
Income Before Income Taxes	4,406	4,051	3,679
Provision for Income Taxes	1,636	1,479	1,366
Income Before Extraordinary losses	2,770	2,572	2,313
Extraordinary loss on Early Extinguishment of Debt, net of tax	—	—	(9)
Net Income	$ 2,770	$ 2,572	$2,304
Retained Earnings:			
At beginning of year	$ 1,354	$ 1,140	$ 870
Net income	2,770	2,572	2,304
Dividends declared	(2,672)	(2,358)	(2,034)
At end of year	$ 1,452	$ 1,354	$1,140

The accompanying notes are an integral part of these consolidated financial statements.

BELLSOUTH TELECOMMUNICATIONS, INC.
CONSOLIDATED BALANCE SHEETS
(IN MILLIONS)

	December 31, 1999	December 31, 1998
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 39	$ 331
Temporary cash investments	15	2
Accounts receivable, net of allowance for uncollectibles of $84 and $73	3,094	2,919
Material and supplies	203	213
Other current assets	82	174
Total Current Assets	3,433	3,639
Investments and Advances	320	310
Property, Plant and Equipment, net	19,904	18,990
Deferred Charges and Other Assets	1,638	880
Total Assets	$25,295	$23,819
LIABILITIES AND SHAREHOLDER'S EQUITY		
Current Liabilities:		
Debt maturing within one year	$ 3,331	$ 1,554
Accounts payable	1,230	1,557
Other current liabilities	2,250	2,065
Total Current Liabilities	6,811	5,176
Long-Term Debt	6,135	6,516
Noncurrent Liabilities:		
Deferred income taxes	1,628	1,291
Unamortized investment tax credits	126	167
Other noncurrent liabilities	1,790	1,932
Total Noncurrent Liabilities	3,544	3,390
Shareholder's Equity:		
Common stock, one share, no par value	7,353	7,383
Retained earnings	1,452	1,354
Total Shareholder's Equity	8,805	8,737
Total Liabilities and Shareholder's Equity	$25,295	$23,819

The accompanying notes are an integral part of these consolidated financial statements.

BELLSOUTH TELECOMMUNICATIONS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(IN MILLIONS)

	For the Years Ended December 31,		
	1999	1998	1997
Cash Flows from Operating Activities:			
Net income	$2,770	$2,572	$2,304
Adjustments to net income:			
Depreciation and amortization	3,387	3,356	3,326
Provision for uncollectibles	154	133	168
Deferred income taxes and investment tax credits	330	132	119
Extraordinary loss on early extinguishment of debt	—	—	15
Net change in:			
Accounts receivable and other current assets	(246)	(179)	(250)
Accounts payable and other current liabilities	(155)	294	(92)
Deferred charges and other assets	(458)	(225)	(241)
Other liabilities and deferred credits	(255)	(88)	29
Other reconciling items, net	46	132	7
Net cash provided by operating activities	5,573	6,127	5,385
Cash Flows from Investing Activities:			
Capital expenditures	(4,626)	(3,502)	(3,432)
Other investing activities, net	54	19	110
Net cash used for investing activities	(4,572)	(3,483)	(3,322)
Cash Flows from Financing Activities:			
Net borrowings (repayments) of short-term debt	1,295	(489)	515
Proceeds from long-term debt	—	1,000	—
Repayments of long-term debt	(9)	(560)	(677)
Advances from parent and affiliates	688	652	341
Repayments of advances from parent and affiliates	(680)	(641)	(326)
Dividends paid to parent	(2,609)	(2,330)	(1,972)
Other financing activities, net	22	10	—
Net cash used for financing activities	(1,293)	(2,358)	(2,119)
Net (Decrease) Increase in Cash and Cash Equivalents	(292)	286	(56)
Cash and Cash Equivalents at Beginning of Period	331	45	101
Cash and Cash Equivalents at End of Period	$ 39	$ 331	$ 45

The accompanying notes are an integral part of these consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(DOLLARS IN MILLIONS)

NOTE A—REORGANIZATION

On December 31, 1999, we completed a reorganization which transferred ownership of two of our operating subsidiaries, BellSouth Communication Systems, Inc. (BCS) and BellSouth Applied Technologies, Inc. (BATI) to our parent, BellSouth Corporation (BellSouth). The transfer of assets and liabilities of BCS and BATI have been recorded at the historical carrying values. The transfers were accounted for in a manner consistent with a reorganization of entities under common control which is similar to that of a reverse pooling of interests. As a result, our financial statements have been restated to exclude the results of operations and financial position of BCS and BATI.

NOTE B—ACCOUNTING POLICIES

In this report, BellSouth Telecommunications, Inc. and its consolidated subsidiaries are referred to as "we" or "BST".

ORGANIZATION

We are a wholly-owned subsidiary of BellSouth. We serve substantial portions of the population within Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee. We primarily provide (i) local exchange service and long distance services within but not between geographic areas, called Local Access and Transport Areas (LATAs) and (ii) network access services to enable interLATA and intraLATA communications using the facilities of long distance carriers. Through subsidiaries, we provide other telecommunications services and products primarily within the southeastern US.

BASIS OF PRESENTATION

The consolidated financial statements include the accounts of BST and subsidiaries in which we have a controlling financial interest. All significant intercompany transactions and accounts have been eliminated. Certain amounts in the prior period consolidated financial statements have been reclassified to conform to the current year's presentation.

USE OF ESTIMATES

Our consolidated financial statements have been prepared in accordance with generally accepted accounting principles. Such financial statements include estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities and the amounts of revenues and expenses. Actual results could differ from those estimates.

CASH AND CASH EQUIVALENTS

We consider all highly liquid investments with an original maturity of three months or less to be cash equivalents. Investments with an original maturity of over three months to one year are not considered cash equivalents and are included as temporary cash investments in the consolidated balance sheets. Interest income on cash equivalents, temporary cash investments and other interest-bearing instruments was not material for the years presented.

MATERIAL AND SUPPLIES

New and reusable material is carried in inventory, principally at average original cost, except that specific costs are used in the case of large individual items. Nonreusable material is carried at estimated salvage value.

PROPERTY, PLANT AND EQUIPMENT

The investment in property, plant and equipment is stated at original cost. For plant dedicated to providing regulated telecommunications services, depreciation is based on the composite group remaining life method of depreciation and straight-line composite rates determined on the basis of equal life groups of certain categories of telephone plant acquired in a given year. When depreciable telephone plant is disposed of, the original cost less net salvage value is charged to accumulated depreciation. Other depreciable plant is depreciated using either straight-line or accelerated methods over the estimated useful lives of the assets. Gains or losses on disposal of other depreciable property, plant and equipment are recognized in the year of disposition as an element of other income, net.

INTANGIBLE ASSETS

Intangible assets consist primarily of amounts capitalized for computer software costs. These assets are amortized over periods of benefit which range from 3 to 5 years.

NOTE B—ACCOUNTING POLICIES (Continued)

DERIVATIVE FINANCIAL INSTRUMENTS

Our use of derivative instruments is generally limited to interest rate swap agreements. These agreements are treated as off-balance sheet financial instruments. Receipts or payments resulting from these instruments are recognized as adjustments to interest expense as received or paid.

REVENUE RECOGNITION

Revenues are recognized when earned. Certain revenues derived from local telephone services are billed monthly in advance and are recognized the following month when services are provided. Revenues derived from other telecommunications services, principally network access and long distance, are recognized monthly as services are provided. Allowances for uncollectible billed services are adjusted monthly. The provision for such uncollectible accounts was $154 for 1999, $133 for 1998 and $168 for 1997.

MAINTENANCE AND REPAIRS

The cost of maintenance and repairs of plant, including the cost of replacing minor items not resulting in substantial betterments, is charged to operating expenses.

ADVERTISING

We expense advertising costs as they are incurred. Our total advertising expense was $146 for 1999, $210 for 1998 and $189 for 1997.

INCOME TAXES

The consolidated balance sheets reflect deferred tax balances associated with the anticipated tax impact of future income or deductions implicit in the consolidated balance sheets in the form of temporary differences. Temporary differences primarily result from the use of accelerated methods and shorter lives in computing depreciation for tax purposes.

For financial reporting purposes, we are amortizing deferred investment tax credits earned prior to the 1986 repeal of the investment tax credit and also some transitional credits earned after the repeal. The credits are being amortized as a reduction to the Provision for Income Taxes over the estimated useful lives of the assets to which the credits relate.

SEGMENT REPORTING

Statement of Financial Accounting Standards (SFAS) No. 131, "Disclosures about Segments of an Enterprise and Related Information," requires that we report financial and descriptive information about reportable segments, and how those segments were determined. Our predominant products are local exchange and long distance communications services within LATAs and network access services, all of which are provided over a single network. Additionally, our chief operating decision maker makes final decisions regarding resource allocation and performance evaluation based on total operations. Based on these factors, we have determined that we operate as one operating segment as defined by SFAS 131.

ADOPTION OF NEW ACCOUNTING STANDARD

In the first quarter of 1999, we adopted a new accounting standard (SOP 98-1) related to the capitalization of certain costs for internal-use software development. Adoption of the new standard caused an increase in earnings as a result of the capitalization of costs that had previously been expensed. The 1999 impact was an increase in income before income taxes of $342 and net income of $213. The adoption also changed the classification of these expenditures in the consolidated statements of cash flows from operating to investing activities.

RECENT ACCOUNTING PRONOUNCEMENTS

In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities". Among other provisions, it requires that entities recognize all derivatives as either assets or liabilities in the statement of financial position and measure those instruments at fair value. Gains and losses resulting from changes in the fair values of those derivatives would be accounted for depending on the use of the derivative and whether it qualifies for hedge accounting. The effective date of this standard was delayed via the issuance of SFAS No. 137. The effective date for SFAS No. 133 is now for fiscal years beginning after June 15, 2000, though earlier adoption is encouraged and retroactive application is prohibited. This means that the standard must be adopted by us no later than January 1, 2001. We do not expect the adoption of this standard will have a material impact on our results of operations, financial position or cash flows.

NOTE C—INVESTMENTS AND ADVANCES

Investments and advances consists primarily of the cost of 19.9 million shares of BellSouth common stock at December 31, 1999 and 19.8 million shares at December 31, 1998. These shares are held in grantor trusts established by us to provide partial funding for the benefits payable under certain nonqualified benefit plans.

NOTE D—PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is summarized as follows at December 31:

	Estimated Depreciable Lives (In Years)	1999	1998
Outside plant	12–20	$23,325	$22,496
Central office equipment	8–10	21,302	20,056
Building and building improvements	45	3,131	3,052
Furniture and fixtures	15	2,135	2,535
Operating and other equipment	5–15	1,209	970
Station equipment	6	607	563
Land	—	182	162
Plant under construction	—	658	372
		52,549	50,206
Less: Accumulated depreciation		32,645	31,216
Property, Plant and Equipment, net		$19,904	$18,990

NOTE E—OTHER CURRENT LIABILITIES

Other current liabilities are summarized as follows at December 31:

	1999	1998
Advanced billing and customer deposits	$ 671	$ 628
Taxes accrued	406	272
Dividends payable	308	267
Salaries and wages payable	278	257
Interest and rents accrued	240	231
Compensated absences	212	212
Other	135	198
Other Current Liabilities	$2,250	$2,065

NOTE F—DEBT

DEBT MATURING WITHIN ONE YEAR

Debt maturing within one year is summarized as follows at December 31:

	1999	1998
Commercial paper	$2,905	$1,509
Current maturities of long-term debt	426	45
Total debt maturing within one year	$3,331	$1,554
Weighted-average interest rate at end of period:		
Commercial Paper	5.92%	5.36%

We have committed credit lines aggregating $1,461 with various banks. There were no borrowings under the lines of credit at December 31, 1999. There are no significant commitment fees or requirements for compensating balances associated with any lines of credit.

NOTE F—DEBT (Continued)

LONG-TERM

Interest rates and maturities in the table below are for amounts outstanding at December 31:

Contractual Interest Rates	Maturities	1999	1998
4.38%-6%	2000-2045	$1,495	$1,495
6.13%-7%	2000-2033	3,207	3,219
7.5%-8.25%	2032-2035	1,150	1,150
6.65%-7%	2095	665	654
		6,517	6,518
Other		64	64
Unamortized discount, net of premium		(20)	(21)
		6,561	6,561
Current maturities		(426)	(45)
Long-term debt		$6,135	$6,516

Maturities of long-term debt outstanding (principal amounts) at December 31, 1999 are summarized below. Maturities after the year 2004 include $500 principal amount of 6.65% Debentures due in 2095. At December 31, 1999, such debentures had an accreted book value of $165.

Maturities	
2000	$ 426
2001	88
2002	14
2003	536
2004	317
Thereafter	5,535
Total	$6,916

In 1998, we issued $500 of 6% Reset Put Securities (REPS) due June 15, 2012. REPS are a debt instrument with embedded put and call option features. The REPS are subject to mandatory redemption from the existing holders on June 15, 2002 through either (i) the exercise by the callholder of its right to purchase the REPS or (ii) our repurchase of the REPS. If the call option is exercised, the callholder will, based on our current credit spreads at that time, determine the interest to be paid on the REPS.

At December 31, 1999, we had shelf registration statements on file with the Securities and Exchange Commission under which $1.5 billion of debt securities could be publicly offered.

NOTE G—OTHER NONCURRENT LIABILITIES

Other noncurrent liabilities are summarized as follows at December 31:

	1999	1998
Postretirement benefits other than pensions (Note I)	$ 684	$ 769
Compensation related	455	415
Postemployment benefits	267	234
Accrued pension cost (Note I)	216	409
Other	168	105
Other noncurrent liabilities	$1,790	$1,932

NOTE H—TRANSACTIONS WITH AFFILIATES

We record both revenues and expenses which result from transactions with other subsidiaries of BellSouth. Revenues are generated primarily from services provided to BellSouth Advertising and Publishing Corporation, interconnection services provided to BellSouth Cellular Corporation and sales commissions charged to BellSouth Cellular Corporation for joint marketing efforts. Expenses are incurred primarily from charges for use of intellectual property, maintenance and equipment relocation services, allocations of corporate overhead expenses, and allocations of expenses from other subsidiaries of BellSouth. Related to these affiliated transactions, we recorded revenues of $308 during 1999, $214 during 1998 and $164 during 1997. We also recorded expenses related to these affiliated transactions of $1,374 during 1999, $613 during 1998 and $277 during 1997.

Amounts receivable from affiliated companies were $64 at December 31, 1999 and $59 at December 31, 1998. Amounts payable to affiliated companies, both short- and long-term, were $426 at December 31, 1999 and $448 at December 31, 1998.

NOTE I—EMPLOYEE BENEFIT PLANS

PENSION AND OTHER POSTRETIREMENT BENEFIT PLANS

Substantially all of our nonrepresented and represented employees are covered by noncontributory defined benefit pension plans, as well as postretirement health and life insurance welfare plans sponsored by BellSouth. Principal plans are discussed below; other plans are not significant individually or in the aggregate.

The pension plan covering nonrepresented employees is a cash balance plan which provides pension benefits determined by a combination of compensation-based service and additional credits and individual account-based interest credits. The cash balance plan is subject to a minimum benefit determined under a plan in existence for nonrepresented employees prior to July 1, 1993 which provided benefits based upon credited service and employees' average compensation for a specified period. The minimum benefit under the prior plan is generally applicable to employees who are eligible to retire before January 1, 2006. Both the 1999 and 1998 projected benefit obligations assume interest and additional credits greater than the minimum levels specified in the written plan. Pension benefits provided for represented employees are based on specified benefit amounts and years of service through 1998. During 1998, BellSouth established a cash balance plan for represented employees based upon an initial cash balance amount, negotiated pension band increases and interest credits effective January 1, 1999. The cash balance plan is subject to a minimum benefit determined under a plan in existence for represented employees who were participants prior to January 1, 1999 and who are eligible to retire. The 1999 and 1998 represented pension obligations include the projected effect of future bargained-for improvements. The accounting for the represented health care plan does not anticipate future adjustments to the cost-sharing arrangements provided for in the written plan for employees who retire after December 31, 1991. The accounting for the nonrepresented health care plan anticipates certain cost-sharing adjustments for employees who retire after December 31, 1991. The adjustments consider past practice but are not provided for in the written plan.

SFAS No. 132, "Employers' Disclosure about Pensions and Other Postretirement Benefits," requires certain disclosures to be made with respect to the components of pension and postretirement (income)/expense for the period and a reconciliation of the funded status of the plan with amounts reported in the consolidated balance sheets. Such disclosures are not presented because the structure of BellSouth's plans does not permit disaggregation of relevant plan information on an individual company basis.

Pension and postretirement benefit (income)/expense allocated by BellSouth to us are as follows:

	1999	1998	1997
Pension (income):			
Represented pension plan	$(202)	$(132)	$ (33)
Nonrepresented pension plan	$(216)	$(147)	$(142)
Net postretirement benefit expense	$ 224	$ 230	$ 254

The consolidated net pension and postretirement (income)/expense amounts reflected above are exclusive of curtailment effects reflected in the work force reduction activity and do not reflect pension curtailment gains in the amount of $9 in 1998 and $36 in 1997.

Amounts recognized in the consolidated balance sheets consist of:

	Pension Benefits	
	1999	1998
Prepaid benefit cost	$ 752	$ 527
Accrued benefit liability	$(216)	$(409)

	Retiree Health and Life	
	1999	1998
Prepaid benefit cost	$ 88	$ 75
Accrued benefit liability	$(684)	$(769)

We also maintain a nonqualified supplemental retirement plan for certain employees. The unfunded accumulated benefit obligations allocated to us were $167 at both December 31, 1999 and 1998. The net cost associated with this plan was $23 in 1999 and 1998 and $14 in 1997.

Prior to December 31, 1997, we maintained a separate cash balance plan for our nonrepresented employees.

NOTE I—EMPLOYEE BENEFIT PLANS (Continued)

The following information required by SFAS 132 is presented for the periods we maintained this separate plan. The components of the separate nonrepresented pension income for 1997 and the underlying assumptions are as follows:

	Pension Benefits 1997
Components of net pension income:	
Service cost	$ 68
Interest cost	290
Expected return on plan assets	(438)
Amortization of prior service cost	(25)
Amortization of actuarial gain	(32)
Amortization of transition asset	(5)
Net pension income	$(142)
Weighted-average assumptions as of December 31, 1997:	
Discount rate	7.00%
Expected return on plan assets	8.25%
Rate of compensation increase	5.00%

DEFINED CONTRIBUTION PLANS

BellSouth maintains contributory savings plans which cover substantially all of our employees. Employees' eligible contributions are matched with BellSouth common stock based on defined percentages determined annually by the Board of Directors. We recognized expense related to these plans of $34 in 1999, $57 in 1998 and $89 in 1997.

NOTE J—STOCK COMPENSATION PLANS

Certain of our employees participate in stock-based compensation plans sponsored by BellSouth. The BellSouth Corporation Stock Plan (the Stock Plan) provides for grants to key employees of stock options and various other stock-based awards. One share of BellSouth common stock is the underlying security for any award. The aggregate number of shares of BellSouth common stock which may be granted in any calendar year cannot exceed one percent of the shares outstanding at the time of grant. Prior to adoption of the Stock Plan, stock options were granted under the BellSouth Corporation Stock Option Plan. Stock options granted under both plans entitle an optionee to purchase shares of BellSouth common stock within prescribed periods at a price either equal to, or in excess of, the fair market value on the date of grant. Options granted under these plans generally become exercisable at the end of three to five years and have a term of 10 years.

We apply APB Opinion 25 and related interpretations in accounting for stock-based compensation plans. Accordingly, we have not recognized compensation cost for stock options granted to our employees.

Had compensation cost for BellSouth's stock-based compensation plans been determined in accordance within the provisions of SFAS No. 123, "Accounting for Stock-Based Compensation," our net income would have been changed to the pro forma amounts indicated below:

	1999	1998	1997
Net income—as reported	$2,770	$2,572	$2,304
Net income—pro forma	$2,741	$2,555	$2,295

The pro forma amounts reflected above are not representative of the effects on reported net income in future years because, in general, the options granted in 1999, 1998 and 1997 do not vest for several years and additional awards are made each year.

The fair value of each option grant is estimated on the grant date using the Black-Scholes option-pricing model with the following weighted-average assumptions:

	1999	1998	1997
Expected life (years)	5	5	5
Dividend yield	1.67%	2.40%	3.24%
Expected volatility	23.0%	21.0%	19.0%
Risk-free interest rate	4.82%	5.42%	6.22%

The weighted-average fair values of options granted at fair market value (in whole dollars) was $11.13 during 1999, $6.83 during 1998 and $4.37 during 1997.

NOTE K—INCOME TAXES

The consolidated balance sheets reflect the anticipated tax impact of future taxable income or deductions implicit in the consolidated balance sheets in the form of temporary differences. These temporary differences reflect the difference between the basis in assets and liabilities as measured in the consolidated financial statements and as measured by tax laws using enacted tax rates.

We are included in the consolidated federal income tax return filed by BellSouth. Consolidated tax expense is allocated among BellSouth's subsidiaries in accordance with the applicable sections of the Internal Revenue Code.

Generally, under this method each company calculates its current year tax expense as if it filed a separate return. The sum of the separate company liabilities is compared to the consolidated return liability. The resulting difference, the benefit of consolidation, is allocated to companies contributing benefits (operating losses, excess credits and capital losses) in proportion to the amounts contributed.

The provision for income taxes is summarized as follows:

	1999	1998	1997
Current			
Federal	$1,165	$1,170	$1,081
State	141	175	167
	1,306	1,345	1,248
Deferred, net			
Federal	317	139	143
State	54	40	40
	371	179	183
Federal Investment tax credits, net	(41)	(45)	(65)
Total provision for income taxes	$1,636	$1,479	$1,366

Temporary differences which gave rise to deferred tax assets and (liabilities) at December 31 were as follows:

	1999	1998
Compensation related	$ 401	$ 576
Allowance for uncollectibles	59	88
Regulatory sharing accruals	68	47
Other	101	64
Deferred tax assets	629	775
Depreciation	(2,254)	(2,030)
Net Deferred tax liability	$(1,625)	$(1,255)

Of the net deferred tax liability at December 31, 1999 and 1998, $3 and $36 were current and $(1,628) and $(1,291) were noncurrent.

A reconciliation of the federal statutory income tax rate to our effective tax rate follows:

	1999	1998	1997
Federal statutory tax rate	35.0%	35.0%	35.0%
State income taxes, net of federal income tax benefit	2.9	3.4	3.7
Amortization of investment tax credits	(0.6)	(0.7)	(1.8)
Miscellaneous items, net	(0.2)	(1.2)	0.2
Effective tax rate	37.1%	36.5%	37.1%

NOTE L—SUPPLEMENTAL CASH FLOW INFORMATION

	1999	1998	1997
Cash paid for:			
Income taxes	$1,100	$1,451	$1,251
Interest	$ 569	$ 568	$ 551

NOTE M—FINANCIAL INSTRUMENTS

The recorded amounts for cash and cash equivalents, temporary cash investments and commercial paper approximate fair value due to the short-term nature of these instruments. The fair value of marketable securities (representing BellSouth common stock), included as a component of investments and advances, as well as debentures and notes are based on the closing market prices for each security at December 31, 1999 and 1998. Fair value estimates for

NOTE M—FINANCIAL INSTRUMENTS (Continued)

interest rate swaps are based on quotes from dealers. Since judgment is required to develop the estimates, the estimated amounts presented herein may not be indicative of the amounts that we could realize in a current market exchange.

Following is a summary of financial instruments where the fair values differ from the recorded amounts as of December 31:

	1999	
	Recorded Amount	Estimated Fair Value
Balance sheet financial instruments:		
Assets (Liabilities):		
Marketable securities	$ 306	$ 930
Long-term debt	(6,517)	(6,112)
Off-balance sheet financial instruments:		
Interest rate swaps	—	(11)

	1998	
	Recorded Amount	Estimated Fair Value
Balance sheet financial instruments:		
Assets (Liabilities):		
Marketable securities	$ 301	$ 988
Long-term debt	(6,518)	(6,771)
Off-balance sheet financial instruments:		
Interest rate swaps	—	(1)

INTEREST RATE SWAPS

We enter into interest rate swap agreements to exchange fixed and variable rate interest payment obligations without the exchange of the underlying principal amounts. As of December 31, 1999, we were a party to an interest rate swap with a notional amount of $500. Under this swap, we paid a variable rate averaging 5.35% and received a fixed rate of 6% at December 31, 1999. The swap matures in 2002.

CONCENTRATIONS OF CREDIT RISK

Financial instruments that potentially subject us to credit risk consist principally of trade accounts receivable. Concentrations of credit risk with respect to these receivables, other than those from long distance carriers, are limited due to the composition of the customer base, which includes a large number of individuals and businesses. At December 31, 1999 and 1998, approximately $490 and $472 of trade accounts receivable were from long distance carriers.

NOTE N—COMMITMENTS AND CONTINGENCIES

LEASES

We have entered into operating leases for facilities and equipment used in operations. Rental expense under operating leases was $109 for 1999, $98 for 1998 and $133 for 1997. Capital leases currently in effect are not significant.

The following table summarizes the approximate future minimum rentals under noncancelable operating leases in effect at December 31, 1999:

	Minimum Rentals
2000	$ 56
2001	56
2002	56
2003	55
2004	54
Thereafter	335
Total	$612

OUTSIDE PLANT

We currently self-insure all of our outside plant against casualty losses. These assets are located in our nine state area and are susceptible to damage from severe weather conditions and other perils. The net book value of these assets was $7,099 at December 31, 1999 and $7,234 at December 31, 1998.

OUTSOURCING CONTRACTS

Beginning in 1997, we contracted with various entities to outsource the performance of certain engineering functions, as well as our information technology operations and application development. These contracts expire at various dates through 2007, are generally renewable, and are cancelable upon the payment of additional fees or for nonperformance. Future minimum payments for these contracts range from $400 to $625 annually over the contract periods.

NOTE N—COMMITMENTS AND CONTINGENCIES
(Continued)

RECIPROCAL COMPENSATION

Following the enactment of the 1996 Act, we entered into interconnection agreements with various CLECs (competitive local exchange carriers) providing for, among other things, the payment of reciprocal compensation for local calls initiated by the customers of one carrier that are completed on the network of the other carrier. Numerous CLECs claim entitlement from us for compensation associated with dial-up calls originating on our network and connecting with Internet service providers (ISPs) served by the CLECs' networks. We have maintained that dial-up calls to ISPs are not local calls for which terminating compensation is due under the interconnection agreements.

In February 1999, the FCC issued a decision that such ISP traffic does not terminate at the ISP and, therefore, is interstate in nature, rather than local. The FCC stated, however, that it would not interfere with prior state commissions' decisions regarding this matter. The courts and state regulatory commissions in our operating territory that have considered the matter have, in most cases, ruled that we are responsible for paying reciprocal compensation on these calls. In certain instances, we have been ordered to pay this compensation pending appeal. In other cases, the ruling bodies have determined that we do not owe reciprocal compensation for these calls. We have appealed the adverse decisions and continue to believe that we have a good legal basis for our position that such reciprocal compensation is not owed to the CLECs. For those cases where we believe it is probable that we have incurred a liability, we have recorded an estimate of the amount owed. At December 31, 1999, the exposure related to unrecorded amounts withheld from CLECs was approximately $300, including accrued interest.

In a related matter, at least one CLEC is claiming terminating compensation of approximately $165 for service arrangements that we do not believe involve "traffic" under our interconnection agreements. We have filed a complaint with the state regulatory commission asking that agency to declare that we do not owe reciprocal compensation for these arrangements. The CLEC has filed a complaint with the state regulatory commission asking it to order us to pay the disputed amounts. Hearings on this matter were held in August 1999 and a decision is pending. We believe that we have a good legal basis for our position and, accordingly, no provision has been recorded for this claim in our financial statements.

OTHER CLAIMS

We are subject to claims arising in the ordinary course of business involving allegations of personal injury, breach of contract, anti-competitive conduct, employment law issues, regulatory matters and other actions. We are also subject to claims attributable to pre-divestiture events involving environmental liabilities, rates, taxes, contracts and torts. Certain contingent liabilities for pre-divestiture events are shared with AT&T Corp.

While complete assurance cannot be given as to the outcome of any legal claims, we believe that any financial impact would not be material to our results of operations, financial position or cash flows.

NOTE O—QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

In the following summary of quarterly financial information, all adjustments necessary for a fair presentation of each period were included.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
1999				
Operating Revenues . .	$4,266	$4,357	$4,404	$4,453
Operating Income	$1,215	$1,184	$1,224	$1,322
Net Income	$ 679	$ 654	$ 686	$ 750
1998				
Operating Revenues . .	$3,965	$4,077	$4,129	$4,201
Operating Income	$1,219	$1,174	$1,075	$1,131
Net Income	$ 680	$ 642	$ 621	$ 629

NOTE P—SUBSEQUENT EVENT

On February 4, 2000, BellSouth announced that it would reduce its domestic workforce by approximately 2,100 positions. These reductions are the result of the streamlining of work processes in conjunction with BellSouth's shift from a multiple company structure to a single organization. As a result, we will reduce our workforce by approximately 1,300 positions and will record a one-time, after-tax charge of between $45 and $65 in the first quarter of 2000 (unaudited).

CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

No change in accountants or disagreements on the adoption of appropriate accounting standards or financial disclosure have occurred during the periods included in this report.

PART IV

EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

a. Documents filed as a part of the report:

(2) Financial statement schedules have been omitted because the required information is contained in the financial statements and notes thereto or because such schedules are not required or applicable.

(3) Exhibits: Exhibits identified in parentheses below, on file with the SEC, are incorporated herein by reference as exhibits hereto.

Exhibit Number	
3a	Restated Articles of Incorporation of BellSouth Telecommunications, Inc. (Exhibit 3a to Form 10-K for the year ended December 31, 1991, File No. 1-1049).
3b	Bylaws of BellSouth Telecommunications, Inc. as amended, effective January 1, 1998. (Exhibit 3b to Form 10-K for the year ended December 31, 1997, File No. 1-1049).
4	No instrument which defines the rights of holders of long and intermediate term debt of BellSouth Telecommunications, Inc. is filed herewith pursuant to Regulation S-K, Item 601(b)(4)(iii)(A). Pursuant to this regulation, BellSouth Telecommunications, Inc. hereby agrees to furnish a copy of any such instrument to the SEC upon request.
12	Computation of Ratio of Earnings to Fixed Charges.
24	Power of Attorney.
27	Financial Data Schedule.

b. Reports on Form 8-K:
None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BELLSOUTH TELECOMMUNICATIONS, INC.

By: /s/ GUY L. COCHRAN

Guy L. Cochran
Vice President, Chief Financial Officer and Comptroller
February 28, 2000

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated.

Principal Executive Officer:
Roderick D. Odom, Jr.*
President

Principal Financial Officer
and Principal Accounting Officer:
Guy L. Cochran*
Vice President, Chief Financial Officer and Comptroller

Director:
Roderick D. Odom, Jr.*

*By: /s/ GUY L. COCHRAN

Guy L. Cochran
(individually and as Attorney-In-Fact)
February 28, 2000

EXHIBIT WET-1

WILLIAM E. TAYLOR: CURRICULUM VITAE

BUSINESS ADDRESS

National Economic Research Associates, Inc.
One Main Street
Cambridge, Massachusetts 02142

(617) 621-2615
(617) 621-0336 (fax)
william.taylor@nera.com

Dr. Taylor received a B.A. magna cum laude in Economics from Harvard College, an M.A. in Statistics and a Ph.D. in Economics from the University of California at Berkeley. He has taught economics, statistics, and econometrics at Cornell and the Massachusetts Institute of Technology and was a post doctoral Research Fellow at the Center for Operations Research and Econometrics at the University of Louvain, Belgium.

At NERA, Dr. Taylor is a Senior Vice President, heads the Cambridge office and is Director of the Telecommunications Practice. He has worked primarily in the field of telecommunications economics on problems of state and federal regulatory reform, competition policy, terms and conditions for competitive parity in local competition, quantitative analysis of state and federal price cap and incentive regulation proposals, and antitrust problems in telecommunications markets. He has testified on telecommunications economics before numerous state regulatory authorities, the Federal Communications Commission, the Canadian Radio-television and Telecommunications Commission, federal and state congressional committees and courts. Recently, he was chosen by the Mexican Federal Telecommunications Commission and Telmex to arbitrate the renewal of the Telmex price cap plan in Mexico. Other recent work includes studies of the competitive effects of major mergers among telecommunications firms and analyses of vertical integration and interconnection of telecommunications networks. He has appeared as a telecommunications commentator on PBS Radio and on The News Hour with Jim Lehrer.

He has published extensively in the areas of telecommunications policy related to access and in theoretical and applied econometrics. His articles have appeared in numerous telecommunications industry publications as well as *Econometrica*, the *American Economic*

Review, the International *Economic Review*, the *Journal of Econometrics*, *Econometric Reviews*, the *Antitrust Law Journal*, *The Review of Industrial Organization*, and *The Encyclopedia of Statistical Sciences*. He has served as a referee for these journals (and others) and the National Science Foundation and has served as an Associate Editor of the *Journal of Econometrics*.

EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY
Ph.D., Economics, 1974

UNIVERSITY OF CALIFORNIA, BERKELEY
M.A., Statistics, 1970

HARVARD COLLEGE
B.A., Economics, 1968
(Magna Cum Laude)

EMPLOYMENT

NATIONAL ECONOMIC RESEARCH ASSOCIATES, INC. (NERA)
1988- Senior Vice President, Office Head, Telecommunications Practice Director. Dr. Taylor has directed many studies applying economic and statistical reasoning to regulatory, antitrust and competitive issues in telecommunications markets. In the area of environmental regulation, he has studied statistical problems associated with measuring the level and rate of change of emissions.

BELL COMMUNICATIONS RESEARCH, INC. (Bellcore)
1983-1988 Division Manager, Economic Analysis, formerly Central Services Organization, formerly American Telephone and Telegraph Company. While at Bellcore, Dr. Taylor performed theoretical and quantitative research focusing on problems raised by the implementation of access charges. His work included design and implementation of demand response forecasting for interstate access demand, quantification of potential bypass liability, design of optimal nonlinear price schedules for access charges and theoretical and quantitative analysis of price cap regulation of access charges.

BELL TELEPHONE LABORATORIES
1975-1983 Member, Technical Staff, Economics Research Center. Performed basic research on theoretical and applied econometrics, focusing on small sample theory, panel data and simultaneous equations systems.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Fall 1977 Visiting Associate Professor, Department of Economics. Taught graduate courses in econometrics.

CENTER FOR OPERATIONS RESEARCH AND ECONOMETRICS
Université Catholique de Louvain, Belgium.
1974-1975 Research Associate. Performed post-doctoral research on finite sample econometric theory and on cost function estimation.

CORNELL UNIVERSITY
1972-1975 Assistant Professor, Department of Economics. (On leave 1974-1975.) Taught graduate and undergraduate courses on econometrics, microeconomic theory and principles.

MISCELLANEOUS

1985-1995	Associate Editor, *Journal of Econometrics*, North-Holland Publishing Company.
1990-	Board of Directors, National Economic Research Associates, Inc.
1995-	Board of Trustees, Treasurer, Episcopal Divinity School, Cambridge, Massachusetts.

PUBLICATIONS

"Smoothness Priors and Stochastic Prior Restrictions in Distributed Lag Estimation," *International Economic Review*, 15 (1974), pp. 803-804.

"Prior Information on the Coefficients When the Disturbance Covariance Matrix is Unknown," *Econometrica*, 44 (1976), pp. 725-739.

"Small Sample Properties of a Class of Two Stage Aitken Estimators," *Econometrica*, 45 (1977), pp. 497-508.

"The Heteroscedastic Linear Model: Exact Finite Sample Results," *Econometrica*, 46 (1978), pp. 663-676.

"Small Sample Considerations in Estimation from Panel Data," *Journal of Econometrics*, 13 (1980) pp. 203-223.

"Comparing Specification Tests and Classical Tests," Bell Laboratories Economics Discussion Paper, 1980 (with J.A. Hausman).

"Panel Data and Unobservable Individual Effects," *Econometrica*, 49 (1981), pp. 1377-1398 (with J.A. Hausman).

"On the Efficiency of the Cochrane-Orcutt Estimator," *Journal of Econometrics*, 17 (1981), pp. 67-82.

"A Generalized Specification Test," *Economics Letters*, 8 (1981), pp. 239-245 (with J.A. Hausman).

"Identification in Linear Simultaneous Equations Models with Covariance Restrictions: An Instrumental Variables Interpretation," *Econometrica*, 51 (1983), pp. 1527-1549 (with J.A. Hausman).

"On the Relevance of Finite Sample Distribution Theory," *Econometric Reviews*, 2 (1983), pp. 1-84.

"Universal Service and the Access Charge Debate: Comment," in P.C. Mann and H.M. Trebing (editors), *Changing Patterns in Regulation, Markets, and Technology: The Effect on Public Utility Pricing*. The Institute of Public Utilities, Michigan State University, 1984.

"Recovery of Local Telephone Plant Costs under the St. Louis Plan," in P.C. Mann and H.M. Trebing (editors), *Impact of Deregulation and Market Forces on Public Utilities*. The Institute of Public Utilities, Michigan State University, 1985.

"Access Charges and Bypass: Some Approximate Magnitudes," in W.R. Cooke (editor), *Proceedings of the Twelfth Annual Telecommunications Policy Research Conference*, 1985.

"Federal and State Issues in Non-Traffic Sensitive Cost Recovery," in *Proceedings from the Telecommunications Deregulation Forum*. Karl Eller Center, College of Business and Public Administration, University of Arizona, Tucson, Arizona, 1986.

"Panel Data" in N.L. Johnson and S. Kotz (editors), *Encyclopedia of Statistical Sciences*. John Wiley & Sons, New York, 1986.

"An Analysis of Tapered Access Charges for End Users," in P.C. Mann and H.M. Trebing (editors), *New Regulatory and Management Strategies in a Changing Market Environment*. The Institute of Public Utilities, Michigan State University, 1987 (with D.P. Heyman, J.M. Lazorchak, and D.S. Sibley).

"Efficient Estimation and Identification of Simultaneous Equation Models with Covariance Restrictions," *Econometrica*, 55 (1987), pp. 849-874 (with J.A. Hausman and W.K. Newey).

"Alternative NTS Recovery Mechanisms and Geographic Averaging of Toll Rates," in *Proceedings of the Thirteenth Annual Rate Symposium: Pricing Electric, Gas, and Telecommunications Services*. The Institute for the Study of Regulation, University of Missouri, Columbia, 1987.

"Price Cap Regulation: Contrasting Approaches Taken at the Federal and State Level," in W. Bolter (editor), *Federal/State Price-of-Service Regulation: Why, What and How?*, Proceedings of the George Washington University Policy Symposium, December, 1987.

"Local Exchange Pricing: Is There Any Hope?", in J. Alleman (editor), *Perspectives on the Telephone Industry: The Challenge of the Future*. Ballinger Publishing Company, Cambridge, Massachusetts, 1989.

"Generic Costing and Pricing Problems in the New Network: How Should Costs be Defined and Assessed," in P.C. Mann and H.M. Trebing (editors) *New Regulatory Concepts, Issues, and Controversies*. The Institute of Public Utilities, Michigan State University, 1989.

"Telephone Penetration and Universal Service in the 1980s," in B. Cole (editor), *Divestiture Five Years Later*. Columbia University Press, New York, New York, 1989 (with L.J. Perl).

"Regulating Competition for IntraLATA Services," in *Telecommunications in a Competitive Environment*, Proceedings of the Third Biennial NERA Telecommunications Conference, 1989, pp. 35-50.

"Costing Principles for Competitive Assessment," in *Telecommunications Costing in a Dynamic Environment*, Bellcore-Bell Canada Conference Proceedings, 1989 (with T.J. Tardiff).

"Optional Tariffs for Access in the FCC's Price Cap Proposal," in M. Einhorn (ed.), *Price Caps and Incentive Regulation in the Telecommunications Industry.* Kluwer, 1991 (with D.P. Heyman and D.S. Sibley).

"Alternative Measures of Cross-Subsidization," prepared for the Florida Workshop on Appropriate Methodologies for the Detection of Cross--Subsidies, June 8, 1991.

"Predation and Multiproduct Firms: An Economic Appraisal of the Sievers-Albery Results," *Antitrust Law Journal*, 30 (1992), pp. 785-795.

"Lessons for the Energy Industries from Deregulation in Telecommunications," *Proceedings of the 46th Annual Meeting of the Federal Energy Bar Association*, May 1992.

"Efficient Price of Telecommunications Services: The State of the Debate," *Review of Industrial Organization*, Vol. 8, pp. 21-37, 1993.

"Status and Results of Regulatory Reform in the U.S. Telecommunications Industry," in C.G. Stalon, *Regulatory Responses to Continuously Changing Industry Structures.* The Institute of Public Utilities, Michigan State University, 1992.

"Post-Divestiture Long-Distance Competition in the United States," *American Economic Review*, Vol. 83, No. 2, May 1993 (with Lester D. Taylor). Reprinted in E. Bailey, J. Hower, and J. Pack, *The Political Economy of Privatization and Deregulation.*London: Edward Elgar, 1994.

"Comment on 'Pricing of Inputs Sold to Competitors,' by W.J. Baumol and J.G. Sidak," *Yale Journal on Regulation*, Vol. 11, Issue 1, 1994, pp. 225-240 (with Alfred E. Kahn).

"Comments on Economic Efficiency and Incentive Regulation," Chapter 7 in S. Globerman, W. Stanbury and T. Wilson, *The Future of Telecommunications Policy in Canada.* Toronto: Institute for Policy Analysis, University of Toronto, April 1995.

"Revising Price Caps: The Next Generation of Incentive Regulation Plans," Chapter 2 in M.A. Crew (ed.) *Pricing and Regulatory Innovations under Increasing Competition.* Boston: Kluwer Academic Publishers, May 1996 (with T. Tardiff).

"An Analysis of the State of Competition in Long-Distance Telephone Markets," *Journal of Regulatory Economics*, May 1997, pp. 227-256 (with J.D. Zona).

"An Analysis of the Welfare Effects of Long Distance Market Entry by an Integrated Access and Long Distance Provider," *Journal of Regulatory Economics*, March 1998, pp. 183-196 (with Richard Schmalensee, J.D. Zona and Paul Hinton).

"Market Power and Mergers in Telecommunications," *Proceedings of the Institute of Public Utilities; 30th Annual Conference: Competition in Crisis: Where are Network Industries Heading?* The Institute of Public Utilities, Michigan State University, 1999.

"The Baby and the Bathwater: Utility Competition, But at What Price?," Public Utilities Fortnightly, Vol. 137, No.21, November 15, 1999, pp. 48-56 (with Anne S. Babineau and Matthew M. Weissman).

TESTIMONIES

Access Charges

Florida Public Service Commission (Docket No. 820537-TP), July 22, 1983.
Arkansas Public Service Commission (Docket No. 83-042-U), October 7, 1985.

Public Utility Commission of Texas (Docket No. 8585), December 18, 1989.
Mexican Secretariat of Communications and Transport, affidavit filed October 18, 1995 (with T. Tardiff).
Federal Communications Commission (CC Docket No. 96-98), affidavit July 8, 1996; *ex parte* letters filed July 22, 1996 and July 23, 1996.
Federal Communications Commission (CC Docket No. 96-262 et. al.) with Richard Schmalensee, January 29, 1997). Rebuttal February 14, 1997.
New York Public Service Commission (Case 94-C-0095 and 28425), Panel Testimony, May 8, 1997. Rebuttal Panel Testimony July 8, 1997.
Pennsylvania Public Utility Commission (Docket No. I-00960066), June 30, 1997. Rebuttal July 29, 1997. Surrebuttal August 27, 1997.
Connecticut Department of Public Utility Control (Docket No. 96-04-07), October 16, 1997.
Federal Communications Commission (*ex parte* CC Docket No. 96-262 *et. al.*), with Richard Schmalensee, January 21, 1998.
Federal Communications Commission (CCB/CPD 98-12), March 18, 1998.
Federal Communications Commission (CC Docket Nos. 96-262, 94-1, 97-250 and RM 9210), October 26, 1998. Reply November 9, 1998.
Federal Communications Commission (Docket No. 99-24), with Karl McDermott, January 20, 1999. Reply April 8, 1999.
Vermont Public Service Board (Docket No. 6167), May 20, 1999. Supplemental May 27, 1999.
Virginia State Corporation Commission, (Case No. PUC 000003), May 30, 2000.

Incentive and Price Cap Regulation

Federal Communications Commission (Docket No. 87-313), March 17, 1988.
Florida Public Service Commission (Docket No. 880069-TL), June 10, 1988.
Federal Communications Commission (Docket No. 87-313), August 18, 1988. Rebuttal November 18, 1988.
New Hampshire Public Service Commission (Docket 89-010), March 3, 1989.
Federal Communications Commission (Docket No. 87-313), June 9, 1989.
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New York State Public Service Commission (Case 28961 - Fifth Stage), September 15, 1989.
Georgia Public Service Commission (Docket No. 3882-U), September 29, 1989.
Federal Communications Commission (Docket 87-313), May 3, 1990.
Federal Communications Commission (Docket 87-313), June 8, 1990 (2 filings).
State of Maine Public Utilities Commission (Docket No. 89-397), June 15, 1990.
Montana Public Service Commission (Docket No. 90.8.46), October 4, 1990.
Federal Communications Commission (Docket 87-313), December 21, 1990.
Tennessee Public Service Commission, February 20, 1991.
Federal Communications Commission (Docket 87-313) with Alfred E. Kahn), June 12, 1991.
California Public Utilities Commission (Phase II of Case 90-07-037) with Timothy J. Tardiff, August 30, 1991. Supplemental testimony January 21, 1992.
Rhode Island Public Utilities Commission (Docket No. 1997), September 30, 1991.

Montana Public Service Commission (Docket No. 90.12.86), November 4, 1991. Additional testimony January 15, 1992.

Federal Communications Commission (Pacific Bell Tariff F.C.C. No. 128, Transmittal No. 1579) with T.J. Tardiff, April 15, 1992. Reply comments July 31, 1992.

California Public Utilities Commission (Docket No. I.87-11-033), with T.J. Tardiff, May 1, 1992.

Delaware Public Utilities Commission (Docket No. 33), June 22, 1992.

Florida Public Service Commission (Docket No. 920260-TL), December 18, 1992.

California Public Utilities Commission (Docket No. I.87-11-033), with T.J. Tardiff, April 8, 1993, reply testimony May 7, 1993.

Canadian Radio-Television and Telecommunications Commission (Docket No. 92-78), with T.J. Tardiff, April 13, 1993 (2 filings).

Federal Communications Commission (Petition for Declaratory Ruling and Related Waivers to Establish a New Regulatory Model for the Ameritech Region), April 16, 1993. Reply Comments, July 12, 1993.

Delaware Public Utilities Commission (Docket No. 33), June 1, 1993. Supplementary statement, June 7, 1993. Second supplementary statement," June 14, 1993.

Vermont Public Service Board (Dockets 5700/5702), September 30, 1993. Rebuttal testimony July 5, 1994.

Pennsylvania Public Utility Commission (Docket No. P-009350715), October 1, 1993. Rebuttal January 18, 1994.

Massachusetts Department of Public Utilities (Docket No. D.P.U. 94-50), April 14, 1994. Rebuttal October 26, 1994.

Federal Communications Commission (CC Docket 94-1), May 9, 1994. Reply June 29, 1994.

Federal Communications Commission (CC Docket 94-1) with R. Schmalensee, May 9, 1994. Reply June 29, 1994.

New York State Public Service Commission (Case 92-C-0665), panel testimony, October 3, 1994.

State of Maine Public Utilities Commission (Docket Nos. 94-123/94-254), December 13, 1994. Rebuttal January 13, 1995.

Canadian Radio-Television and Telecommunications Commission (Application of Teleglobe Canada for Review of the Regulatory Framework of Teleglobe Canada Inc.), December 21, 1994.

Kentucky Public Service Commission, testimony re concerning telecommunications productivity growth and price cap plans, April 18, 1995.

California Public Utilities Commission (U 1015 C), May 15, 1995. Rebuttal January 12, 1996.

State of Connecticut, Department of Public Utility Control (DPUC Docket No. 95-03-01), June 19, 1995.

Louisiana Public Service Commission (Docket No. U-17949, Subdocket E), July 24, 1995.

California Public Utilities Commission (Investigation No. I.95-05-047), with R.L. Schmalensee and T.J. Tardiff, September 8, 1995. Reply September 18, 1995.

Mississippi Public Service Commission (Docket No. 95-UA-313), October 13, 1995.

Louisiana Public Service Commission (Docket No. U-20883), November 21, 1995.

Federal Communications Commission (CC Docket No. 94-1), with T. Tardiff and C. Zarkadas, December 18, 1995. Reply March 1, 1996.

North Carolina Utilities Commission (Docket No. P-7, Sub 825; P-10, Sub 479), February 9, 1996.
Rhode Island Public Utilities Commission (Docket No. 2370), February 23, 1996. Rebuttal June 25, 1996.
Pennsylvania Public Utility Commission (Docket No. P-00961024), April 15, 1996. Rebuttal July 19, 1996.
Canadian Radio-Television and Telecommunications Commission, in response to CRTC Telecom Public Notice CRTC 96-8 (2 filings), June 10, 1996.
Federal Communications Commission (CC Docket 96-262 et al.), *ex parte* March 1997.
Federal Communications Commission (CC Docket Nos. 93-193, Phase 1, Part 2, 94-65), May 19, 1997.
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January, 2001

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of:	)	
	)	
Implementation of the Local Competition Provisions in the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
Inter-Carrier Compensation for ISP-Bound Traffic	)	CC Docket No. 99-68

FLORIDA PUBLIC SERVICE COMMISSION COMMENTS ON NOTICE OF PROPOSED RULEMAKING

The Florida Public Service Commission ("FPSC") hereby respectfully submits its comments in the above docket. Specifically, these comments are in response to the Commission's Notice of Proposed Rulemaking released on February 26, 1999 regarding inter-carrier compensation for ISP-bound traffic. We comment specifically on the Commission's alternatives for handling inter-carrier compensation.

FCC's Incorrect Jurisdictional Analysis

In the FCC's declaratory ruling on reciprocal compensation for traffic delivered to an information service provider, the FCC concludes that the communications do not terminate at the Internet Service Provider's (ISPs) local server, but continue to the ultimate destination(s), specifically at an Internet website that is often located in another state. The FCC noted, "the fact

that the facilities and apparatus used to deliver traffic to the ISP's local server may be located within a single state does not affect our jurisdiction." (Order at ¶ 12).

The order specifically disagreed with those commenters who asserted, for jurisdictional purposes, that ISP-bound traffic must be separated into two components: an intrastate telecommunications service, provided by one or more LECs, and an interstate information service, provided by the ISP. The order analyzes "ISP traffic for jurisdictional purposes as a continuous transmission from the end user to a distant Internet site." (Order at ¶ 13).

The FPSC believes that the Commission is in error in assuming that "telecommunications continues through the ISP POP *simply because the ISP uses telecommunications.*" The FCC's position is inconsistent with its conclusion in the Universal Service Report to Congress, where the Commission found that "information service providers are not transformed into providers of telecommunications simply because they use telecommunications." In that Report, the Commission concluded that an ISP offering is properly categorized as an information service, not subject to Title II, and that the ISP "is itself a

user of telecommunications; that is, telecommunications is an *input in the provision of an information service."*

Internet services are purchased by end users as two components, as described in the FCC's NPRM. First, an access line, provided by a local exchange carrier, allows the end user to call an ISP using a seven-digit number. The second step involves protocol conversion, transmission, routing, etc., provided by the ISP which enables the customer to access Internet content and services.[1] The access lines purchased by end users are local access lines that are provided through an intrastate tariff. Because ISP's are recognized as Enhanced Service Providers (ESPs) and thus are exempt from paying certain interstate access charges, they are able to purchase their access lines through intrastate business tariffs rather than interstate access tariffs. Once a transmission reaches an ISP server, it leaves the public switched network and is routed to its ultimate destination through the Internet backbone, which is a private, packet-switched network over which the FCC has no jurisdiction. In order to assert its jurisdiction, the FCC has combined a service that is regulated on an intrastate basis and provided over the public switched network with an unregulated service that

[1] NPRM, paragraph 4.

is provided across a private network to create a new, interstate service.

We believe that the FCC is clinging to a weathered end-to-end jurisdictional approach that is particularly ill-suited for the years ahead. The end-to-end analysis will not fit well with an environment in which Internet telephony has become commonplace, nor is it appropriate if significant elements of the current facilities-based local exchange network monopoly persist indefinitely. Taken to a logical extreme, the Commission's approach could have the particularly unwanted effect of extending federal jurisdiction beyond telephony, while simultaneously emasculating the type of (state) regulation that is best suited to handle a residual local "pipeline" monopoly. We believe that state commissions are in a better position to address these issues because of our proximity to consumers, our understanding of unique market conditions within our respective jurisdictions, and our longstanding regulatory authority over with local telecommunications providers.

Taken to its logical conclusion, the FCC's decision on the jurisdictional nature of ISP-bound traffic dictates that cable modems must now also be regulated as a form of telecommunications. ISP-bound traffic carried over cable modems

is currently not regulated as telecommunications. Although cable modems provide a means to connect to ISPs that is different from dial up access, we believe that once the traffic reaches the ISP, access to the Internet is identical to that provided via dial-up access (usually with greater speed). However, if this traffic is now considered "end-to-end telecommunications," Internet service provided via cable modems should be regulated as a common carrier service.

We believe that such a policy is a bad idea and is contrary to the underlying principals of the Telecommunications Act. The logical extension of the policies adopted by the FCC creates more regulation, not less, and could have the unintended consequences of deterring further advanced telecommunications development over the Internet.

FPSC Responses to NPRM

Notwithstanding the FCC's incorrect premise that local ISP-bound traffic is interstate in nature, the FPSC believes there is only one correct method for dealing with inter-carrier compensation for this traffic given these circumstances. The FCC's first option, to give states full discretion in continuing to deal with compensation as an issue in their Section 251/252 arbitration proceedings, will somewhat mitigate the problems that

the Commission's determination has created. Allowing states to determine correct compensation policies, unencumbered by federal mandates, will ensure that states will be able to arbitrate these issues in the manner that best fits each state's circumstances.

The FPSC believes that the Commission's second option involving federal rules for inter-carrier compensation is not warranted. This proposal would be contrary to the Commission's previous indications that it did not wish to interfere with state commission arbitrations involving ISP traffic.

If the Commission determines that federal rules are necessary, then the Commission should also be responsible for enforcement of those rules. This would include arbitrating, or arranging for independent arbitration of, any disputes regarding this traffic. The states should not be obligated to enforce FCC rules on this matter.

The Commission also sought comment on whether under either option there may be a need for some federal rules to aid in the resolution of disputes on these matters. The FPSC believes that the development of such rules is both unnecessary and overly prescriptive. Section 252 of the Telecommunications Act of 1996 imposes upon state commissions the statutory duty to approve voluntarily-negotiated interconnection agreements and to

arbitrate interconnection disputes. Indeed, the Commission observed in its Local Competition Order that state commission authority pursuant to section 252 includes both interstate and intrastate matters.

The Commission also sought comment on the impact of Section 252(I) and Most Favored Nations ("MFN") clauses on parties' ability to negotiate or renegotiate terms of their interconnection agreements. The FPSC believes that this topic involves interconnection issues far more encompassing than inter-carrier compensation for ISP-bound traffic. The Commission's interpretation of Section 252(I) and its effect on interconnection agreements is best explored in a generic investigation into its interconnection rules. The FPSC presumes that the Commission will issue an NPRM on the validity, need, and implementation schedule of its interconnection pricing rules within the next few months. Given the broad nature of this question, we believe it is best suited for that proceeding.

While the FPSC believes that this issue should be addressed in a generic interconnection inquiry, we believe that the Commission's interpretation of 252(I)significantly reduces competitors' incentives to negotiate an agreement. A competitive carrier can minimize its expenses by selecting portions of other

CLEC agreements without having to concede on any other issues. ILECs will have little incentive to negotiate agreements since other CLECs would likely cannibalize any new agreement.

Over time, this process would create a "best-of-breed" contract based entirely on previously negotiated agreements. This creation, which may bear a striking resemblance to a tariff, would effectively defeat both the need and purpose of negotiation.

With regard to the Commission's specific example involving the time frame a carrier should be afforded to opt into a pre-existing contract, the FPSC believes that the ability of a CLEC to use conditions or rates from a pre-existing contract should expire at the same time the original contract terminates.

The FPSC believes that MFN clauses in negotiated agreements are different from the Commission's interpretation of Section 252(I). Although MFN clauses may, in some instances, result in the same ability for a CLEC to "pick and choose" terms from other contracts, an MFN clause is a voluntary agreement between parties and therefore is not equivalent to the mandatory terms of Section 252(I). If parties believe that MFN clauses in contracts are too strict or too broad, or are interpreted incorrectly through arbitration, then they have the option to renegotiate those terms

with more specificity the next time they enter into a negotiated agreement. In contrast, the Commission's interpretation of Section 252(I), which the FPSC believes grants *global* MFN rights to all carriers for any term in any contract, may eventually eliminate the need or reason for negotiated contracts altogether.

FPSC Endorsement of Certain Comments of the Indiana Commission

Mismatch of Revenues and Costs

The FPSC also endorses the following points raised by the Indiana Utility Regulatory Commission (IURC). Specifically, assigning the revenues and the costs for an interstate service such as the Internet to the intrastate jurisdiction creates specific cost allocation problems. Both end users and ISPs may purchase residential or business access lines, whichever are applicable, out of an intrastate tariff. These access lines, in turn, provide end users access to the ISP and the ISP access to end users. The FPSC believes that the intrastate jurisdiction should not be responsible for recovering the costs associated with an interstate service. The FPSC reiterates that if Internet traffic is an interstate service which uses the local loop, then an additional portion of the loop cost should be recovered through an interstate rate, not basic local service (BLS) rates. Assigning the costs and revenues associated with Internet traffic

solely to the intrastate jurisdiction could force the states and, by extension, basic local service customers to recover more than their fair share of common plant costs. Bluntly stated, *if Internet traffic is interstate traffic, then intrastate basic local service rates, which currently recover the cost of Internet access, might be too high.*

Bill & Keep Arrangements

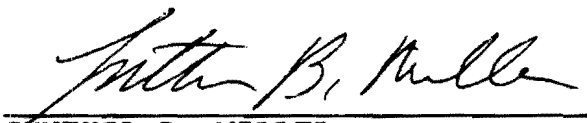
In addition, if the FCC believes that a uniform cost recovery mechanism for ISP-bound traffic is necessary, then the FCC should look at the possibility of encouraging the states to require carriers to recover their costs for the transport and termination of all traffic through bill and keep arrangements.[2] The FCC previously presented states three options for setting rates for the transport and termination of local traffic in its first local competition order.[3] States could: 1) develop rates based on a TELRIC cost study; 2) use the default cost proxies

[2] Bill and keep arrangements are arrangements in which "neither of two interconnecting networks charges the other network for terminating traffic that originated on the other network." *In re: Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket 96-96, August 8, 1996, paragraph 1096.

[3] *In re: Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket 96-96, released August 8, 1996.

developed by the FCC; or 3) order carriers to adopt bill and keep arrangements, so long as the traffic between carriers is "roughly balanced".[4] However, the balanced traffic standard could be difficult to achieve in many instances and could require CLECs to install expensive billing systems. The FPSC notes the IURC's recommendation that the "roughly balanced" requirement be eliminated in order for bill and keep to be a practical alternative to reciprocal compensation. This should also be reviewed by the FCC.

Respectfully submitted,



CYNTHIA B. MILLER
Senior Attorney

FLORIDA PUBLIC SERVICE COMMISSION
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850
(850) 413-6082

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[4] Id, paragraph 1112.