

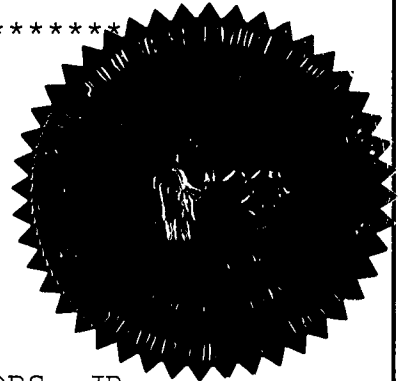
BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of : DOCKET NO. 990649-TP
:
INVESTIGATION INTO PRICING :
OF UNBUNDLED NETWORK :
ELEMENTS. :

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VOLUME 20

Pages 3192 through 3278



PROCEEDINGS: HEARING
BEFORE: CHAIRMAN J. TERRY DEASON
COMMISSIONER E. LEON JACOBS, JR.
COMMISSIONER LILA A. JABER
DATE: Friday, October 20, 2000
TIME: Commenced at 10:00 a.m.
Concluded at 10:40 a.m.
PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida
REPORTED BY: JANE FAUROT, RPR
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Chief, Bureau of Reporting
(850) 413-6732
APPEARANCES:
(As heretofore noted.)

DOCUMENT NUMBER-DATE

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I N D E X

WITNESSES

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EXHIBITS

NUMBER:		ID.	ADMTD.
158	TOC-1 through TOC-4	3195	3195
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P R O C E E D I N G S

1
2 MR. FONS: Finally, Sprint has offered the
3 testimony of Talmage O. Cox, III, consisting of refiled
4 direct testimony of 15 pages dated August 21st, 2000, and
5 we would ask that that refiled direct testimony be
6 inserted into the record as though read.

7 CHAIRMAN DEASON: Without objection it shall be
8 so inserted.

9 MR. FONS: Associated with Mr. Cox's refiled
10 direct testimony were four exhibits, TOC-1, 2, 3, and 4,
11 and we would ask that those be marked for identification
12 purposes at this time.

13 CHAIRMAN DEASON: Yes, Exhibit 158.

14 MR. FONS: And Sprint would ask that Exhibit 158
15 be admitted into the record.

16 CHAIRMAN DEASON: Without objection, Exhibit 158
17 shall be admitted.

18 (Exhibit 158 marked for identification and
19 admitted into the record.)

20 MR. FONS: Mr. Cox also prefiled refiled
21 rebuttal testimony dated August 21st, 2000, consisting of
22 13 pages. Sprint would ask that that be inserted into the
23 record as though read.

24 CHAIRMAN DEASON: Without objection it shall be
25 so inserted.

1 MR. FONS: And, finally, Mr. Cox prefiled
2 additionally rebuttal testimony dated August 28th, 2000,
3 consisting of three pages, and Sprint would ask that Mr.
4 Cox's additional rebuttal testimony be inserted in the
5 record as though read.

6 CHAIRMAN DEASON: Without objection, it shall be
7 so inserted.

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**REFILED DIRECT TESTIMONY****OF****TALMAGE O. COX, III**

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5
6 **Q. Please state your name, business address, employer and**
7 **current position.**

8
9 A. My name is Talmage O. Cox, III. My business address is
10 901 East 104th Street, Kansas City, Missouri, 64131. I
11 am employed as Manager of Service Cost for
12 Sprint/United Management Company. I am testifying on
13 behalf of Sprint-Florida, Inc. and Sprint
14 Communications L.P. (hereafter referred to as
15 "Sprint").

16
17 **Q. What is your educational background?**

18
19 A. I received an Associate in Arts Degree from National
20 Business College, Roanoke, Virginia, in 1977 with a
21 major in Business Administration -- Accounting.
22 Subsequently, I received a Bachelor of Science Degree
23 from, Tusculum College - Greeneville, Tennessee, in
24 1986 with a major in Business Administration.

25

1 **Q. What is your work experience?**

2

3 A. I have worked for Sprint since 1978. Prior to my
4 current position, I have held several positions with
5 Sprint in costing. I developed cost studies and
6 methodology associated with various services and
7 special projects for state jurisdictional filings in
8 Tennessee, and Virginia. While working in this
9 position I was the Telecordia Switching Cost
10 Information System (SCIS) Administrator for ten years
11 responsible for coordinating model questions with
12 Telecordia and assisting other users when needed. For
13 the past four years, in my current position I have
14 primary responsibility for developing the costing
15 methodology and the module for interoffice transport
16 associated with Sprint's Unbundled Network Element
17 (UNE) transport cost module as well as the transport
18 module contained in proxy cost models.

19

20 **Q. Have you previously testified before other Public**
21 **Utility Commissions?**

22

23 A. Yes. I have previously testified before state
24 regulatory commissions in Kansas and Texas.

25

26 **Q. What is the purpose of your Testimony?**

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A. To respond to the following Tentative List of Issues (Appendix A) from the second revised order on procedure in reference to the Investigation Into Pricing of Unbundled Network Elements in Docket No. 990649-TP: Issues 7(n) and 7(r).

Q. What does the FCC say about unbundled interoffice transmission facilities?

A. FCC Rule 51.319 (d) defines unbundled Interoffice Transmission Facilities "... as incumbent LEC transmission facilities dedicated to a particular customer or carrier, that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers, or between switches owned by incumbent LECs or requesting telecommunications carriers."

The unbundled Interoffice Transmission Facilities element, or simply "transport", is composed of the two basic network components: terminals and fiber cable. Terminals are the equipment housed at the central office locations, which serve as entry and exit points for telecommunications traffic to be moved between

1 interoffice points in the network. In the majority of
2 today's transport networks and certainly in a forward-
3 looking network, these interoffice terminals will be
4 optically capable. Additionally, the fiber transport
5 routes in a forward-looking network are constructed in
6 ring design, which provides diverse routing capability
7 in the event of a fiber cable cut, or terminal node
8 failure. This forward-looking transport network design
9 is commonly referred to as survivable SONET ring
10 technology.

11

12 **Q. What does the FCC 96-325 First Report and Order say**
13 **about the unbundling of transmission facilities?**

14

15 A. FCC 96-325, First Report and Order, Paragraph 440,
16 States,

17 "We require incumbent LECs to provide
18 unbundled access to shared transmission
19 facilities between end offices and the
20 tandem switch. Further, incumbent LECs must
21 provide unbundled access to dedicated
22 transmission facilities between LEC central
23 offices or between such offices and those of
24 competing carriers. This includes, at a
25 minimum, interoffice facilities between end

1 offices and serving wire centers (SWCs),
2 SWCs and IXC POPs, tandem switches and SWCs,
3 end offices or tandems of the incumbent LEC,
4 and the wire centers of incumbent LECs and
5 requesting carriers. The incumbent LEC must
6 also provide, to the extent discussed below,
7 all technically feasible transmission
8 capabilities, such as DS1, DS3, and Optical
9 Carrier levels (e.g. OC-3/12/48/96) that the
10 competing provider could use to provide
11 telecommunications services. We conclude
12 that an incumbent LEC may not limit the
13 facilities to which such interoffice
14 facilities are connected, provided such
15 interconnection is technically feasible, or
16 the use of such facilities. In general,
17 this means that incumbent LECs must provide
18 interoffice facilities between wire centers
19 owned by incumbent LECs or requesting
20 carriers, or between switches owned by
21 incumbent LECs or requesting carriers. For
22 example, an interoffice facility could be
23 used by a competitor to connect to the
24 incumbent LEC's switch or to the
25 competitor's collocated equipment."

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ISSUE 7: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE Cost Studies?

(n) Terminal Costs;

Q. What are the appropriate assumptions associated with the development of terminal cost inputs?

A. The terminal cost inputs should recognize the following key assumption items:

- Terminal Cost Based on ILEC Specific Data
- Utilize Forward Looking Technology
- Optical Based Transmission Equipment Costs Only
- Capable of Costing OC3, OC12, and OC48 Transport Rings Individually
- Reflect the Use of LEC's Existing Wire Centers
- Include the Cost Associated with Survivability

More specific the terminal cost should be developed by terminal bandwidth (OC3, OC12, OC48) and should include all of the common components required to make it operational. This would include the following components; relay racks, shelves, line interface,

1 common shelf processor, trib shelf processor,
2 receive/transmit access module, tributary transceiver,
3 line shelf power supply, common shelf power supply,
4 ring controller, synchronizer card, USI-LAN interface,
5 software, cables, cover, DS3 switch, transmitters,
6 craft interface equipment and software, and common
7 complement of spare equipment. In addition to the
8 above common equipment, additional line or drop
9 interface equipment will be required for the hand off
10 of DS1's, DS3's, OC3's and OC12's.

11

12 **(r) Transport System Costs and Associated Variables;**

13

14 **Q. What network components should be included in the**
15 **development of transport system costs?**

16

17 A. The development of interoffice transport system costs
18 for UNE's should include all of the direct cost
19 components required for the service to be fully
20 functional. The transport system cost inputs should
21 utilize/recognize the following items:

22

- 23 • Fiber optic cable
- 24 • Fiber tip cable
- 25 • Fiber patch panel

- 1 • Fiber optic terminals (OC-3, OC-12, and
2 OC-48)
- 3 • OC-3 cards
- 4 • OC-12 cards
- 5 • DS-3 cards
- 6 • DS-1 cards
- 7 • Installation cost
- 8 • Capacity
- 9 • Utilization factors
- 10 • Pole and conduit factors
- 11 • Annual charge factors
- 12 • Aerial, buried, underground mix
- 13
- 14

15 **Q. Should traffic volume (Associated Variables) be**
16 **considered in the development of transport costs?**

17

18 A. Yes. The largest single determinant in the unit cost
19 of a DS1, DS3, OC3 or OC12 transport circuit, is the
20 volume of telecommunications traffic transmitted over
21 a specific transport route. This volume of traffic, or
22 demand, determines both the appropriate capacity
23 sizing of the terminal equipment and fiber cable.
24 Additionally, it defines the units over which these
25 costs are spread. In cost determination, this basic

1 principle is referred to as utilization. As volumes of
2 traffic vary across specific transport routes, so does
3 the sizing and utilization of terminals and fiber
4 cable, and ultimately the resulting unit costs. This
5 concept is illustrated in a series of Exhibits to this
6 testimony.

7

8 **Q. Should terminal bandwidth OC3, OC12, OC48 (Associated**
9 **Variables) be considered in the development of**
10 **transport costs?**

11

12 A. Yes. Looking first at Exhibit TOC-1, it shows the
13 decrease in DS1 unit costs as larger terminals are
14 deployed. This analysis indicates that as traffic
15 volumes or demand increases, larger terminals with
16 increased capacity are used. Use of larger terminals
17 associated with increased traffic volume results in
18 greater economies and lower unit costs. This same
19 relationship of increased demand driving down unit
20 costs is also illustrated in Exhibit TOC-2, which
21 shows the decreases in DS1 unit costs as demand, and
22 therefore terminal utilization, increases.

23

24 A basic characteristic of fiber cable is that the
25 volume of traffic that can be carried over fiber is a

1 function of the optical terminal's bandwidth/capacity
2 (OC3, OC12, OC48) placed on the fiber ring. From this
3 basic principle, it follows that the same traffic
4 volume that drives the unit cost of the terminals is
5 also a major determinant in the transport unit cost of
6 the fiber. The same relationship exists for fiber as
7 terminals, in that the more traffic that a specific
8 transport route carries, the lower the unit cost of
9 DS0, DS1, DS3, OC3 or OC12 on that route.

10

11 **Q. Should distance (Associated Variables) be considered**
12 **in the development transport costs?**

13

14 A. Yes. It is obvious that as the distance around a
15 transport ring increases, more fiber cable must be
16 placed, thereby increasing the cost of bandwidth on
17 that ring. The impact of increasing distance on DS1
18 unit cost is illustrated on Exhibit TOC-3. Related to
19 the impacts of distance on transport unit costs is the
20 fact that as distance increases the likelihood for
21 needing multiple survivable SONET rings to connect the
22 two network end points increases. Exhibit TOC-4
23 illustrates the increases in unit cost that result
24 from using multiple rings to transport traffic between
25 two points. The potential use of multiple rings to

1 transport traffic between certain end offices is
2 unavoidable due to ultimate capacity constraints of
3 terminal equipment and the need to construct fiber
4 rings that link the predominant communities which
5 originate and terminate the largest volumes of traffic
6 on any given ring. Two communities with a relatively
7 smaller need (i.e. volume) for transporting traffic
8 between themselves would normally not exist on the
9 same ring. Therefore, in order to transport the
10 relatively lower volumes of traffic between these two
11 communities, multiple ring connections are required.

12
13 In summary, unbundled transport unit costs vary
14 between specific geographic points due to the
15 underlying variances in the traffic volumes, distances
16 and ring designs that commonly occur in the network.
17 In order to properly estimate the geographic-specific
18 forward-looking cost of unbundled transport
19 facilities, the impact of these geographic-
20 specific factors must be considered.

21

22 **Q. What is the difference between point-to-point and**
23 **fiber ring transmission systems?**

24

1 A. Fiber ring technology represents the current state-of-
2 the-art transport design. The most significant
3 characteristic is the use of fiber rings, rather than
4 point-to-point connections, which provide route
5 diversity. Should the cable making up part of the
6 ring be broken, traffic is automatically rerouted over
7 the remainder of the ring. Ring technology has become
8 the industry standard technology, such that
9 asynchronous point-to-point systems can no longer be
10 purchased from vendors.

11

12 **Q. What does the FCC Order say about fill factors?**

13

14 A. FCC 96-325, First Report and Order, Paragraph 682
15 states,

16 "Per-unit costs shall be derived from
17 total costs using reasonably accurate
18 "fill factors" (estimates of the
19 proportion of a facility that will be
20 "filled" with network usage); that is,
21 the per-unit costs associated with the
22 element must be derived by dividing the
23 total cost associated with the element
24 by a reasonable projection of the
25 actual total usage of the element."

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Q. Please describe what is meant by "reasonably accurate fill factors" (FCC Order Paragraph 682).

A. Fill or utilization factors are the percentage of available network capacity actually used. Utilization is due to three factors.

1. When engineering and building telecommunications facilities, LECs attempt to anticipate future needs. For example, it is more cost-effective to dig a trench once and install additional facilities, than to dig up the trench and install new facilities every time a new loop is required.
2. It is the nature of the telecommunications industry that capacity is acquired in large blocks. Additional capacity will exist while demand grows into the available capacity.
3. An engineering interval, a period of time necessary to plan and construct facilities, is required when replacing or expanding capacity.

1 Efficient deployment balances the cost-benefit
2 relationship of unused capacity and the cost of
3 installation. Not enough capacity results in
4 inefficient rework (e.g. digging new trenches every
5 month); too much capacity is an inefficient use of
6 resources (e.g., burying plant that will never be
7 used).

8

9 **Q. Is the use of a theoretically high, optimal**
10 **utilization factor appropriate for telephone**
11 **companies?**

12

13 A. No. This is in large part due to the nature of
14 transmission capacity. For example, an OC-3 system
15 has the capacity of 3 DS3s. An OC-12 system has the
16 capacity of 12 DS3s. When an OC-3 system is exhausted
17 and replaced with the larger OC-12 system, its maximum
18 utilization at the time of cutover is only 25% (3 DS3s
19 / 12 DS3s). In reality, the cutover takes place prior
20 to absolute exhaustion, so the actual utilization at
21 cutover must be less than 25%.

22

23 The same phenomenon occurs when cutting over from an
24 OC-12 to an OC-48 system.

25

1

2 Q. Does this conclude your testimony?

3

4 A. Yes.

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**2 **REFILED REBUTTAL TESTIMONY**3 **OF**4 **TALMAGE O. COX, III**

5

6 **Q. Please state your name, business address, employer and**
7 **current position.**

8

9 A. My name is Talmage O. Cox, III. My business address is
10 6360 Sprint Parkway, Overland Park, Kansas, 66251 I am
11 employed as Manager of Service Cost for Sprint/United
12 Management Company. I am testifying on behalf of
13 Sprint-Florida, Inc. and Sprint Communications L.P.
14 (hereafter referred to as "Sprint").

15

16 **Q. Are you the same Talmage O. Cox, III that submitted**
17 **direct testimony on behalf of Sprint?**

18

19 A. Yes, I am.

20

21 **Q. What is the purpose of your Testimony?**

22

23 A. To clarify the deficiency of the interoffice transport
24 costing process that BellSouth Telecommunications,
25 Inc. (hereafter referred to as "BellSouth") utilized

1 in the completion of their interoffice transport cost
2 studies. I will also make recommendations on how the
3 interoffice transport cost study process should be
4 corrected.

5

6 **Q. What position have BellSouth witnesses D. Daonne**
7 **Caldwell and Alphonso J. Varner proposed concerning**
8 **the geographic deaveraging of transport?**

9

10 A. BellSouth's witnesses have proposed that it is not
11 necessary to deaverage interoffice transport cost
12 studies and that a per mile cost structure reflects
13 geographic deaveraging.

14

15 **Q. Please display and discuss the cost structure proposed**
16 **by BellSouth for interoffice transport.**

17

18 A. The following is the cost structure as shown on Ms.
19 Caldwell's exhibit, DDC-4, Page 4 of 14.

	Description	Statewide Average
D.4.1	Interoffice Transport Dedicated DS1 Per Mile	\$ 0.2035
D.4.2	Interoffice Transport Dedicated DS1 Facility Termination	\$ 93.31

20

1 Certainly looking at these results one can see that
2 they are statewide averages and do not reflect
3 deaveraged cost study results. Studies clearly
4 indicate that a mile of cable that has an OC48
5 terminal attached to it would produce a significantly
6 cheaper per unit cost of the fiber than if it had an
7 OC3 terminal attached. The primary cost drivers for
8 interoffice transport are the bandwidth of the
9 terminal and utilization/demand on the SONET Ring,
10 both of which BellSouth has averaged in their proposed
11 prices.

12

13 **Q. Will a per mile cost structure adequately deaverage**
14 **costs for geographic differences, as asserted by**
15 **BellSouth witnesses Ms. Caldwell and Mr. Varner?**

16

17 A. No. While distance is a variable in the cost of
18 transport, distance is not one of the primary cost
19 drivers. The two primary drivers of the cost of
20 transport are the following:

21 • bandwidth of the terminal utilized (OC3, OC12,
22 OC48)

23 • utilization/demand on the SONET RING

24

1 Q. Has BellSouth adequately reflected traffic volume
2 (Associated Variables) in the development of its
3 interoffice transport costs?
4

5 A. No. While BellSouth did utilize different ring
6 designs with different size terminals, these studies
7 were completed for each individual ring design.
8 Then a probability factor (percentage) was applied to
9 the cost of each ring design to develop a single,
10 weighted average. The entire process simply resulted
11 in a single statewide average, not in compliance with
12 the FCC's mandate to reflect geographic deaveraging.
13

14 The largest single determinant in the unit cost of a
15 DS1, DS3, OC3 or OC12 transport circuit, is the volume
16 of telecommunications traffic transmitted over a
17 specific transport route. This volume of traffic, or
18 demand, determines both the appropriate capacity
19 sizing of the terminal equipment and fiber cable.
20 Additionally, it defines the units over which these
21 costs are spread. In cost determination, this basic
22 principle is referred to as utilization. As volumes of
23 traffic vary across specific transport routes, so does
24 the sizing and utilization of terminals and fiber
25 cable, and ultimately the resulting unit costs. This

1 concept is illustrated in a series of exhibits, which
 2 were submitted with my direct testimony.

3

4 **Q. Please illustrate the effects of terminal bandwidth**
 5 **OC3, OC12, OC48 (Associated Variables) in the**
 6 **development of transport costs.**

7

8 A. The following table shows the results from an exhibit
 9 (Exhibit TOC-1 T. Cox Direct Testimony) that was filed
 10 with my direct testimony. This table illustrates the
 11 effects on cost when different size terminals are
 12 utilized.

Terminal Size	# of Terminals	Terminal Utilization	Total Ring Miles	DS1 Unit Costs	Percent Decrease
OC3	3	.67	30	\$ 132.51	
OC12	3	.67	30	\$ 71.47	46.06%
OC48L	3	.67	30	\$ 61.86	53.32%
OC48A	3	.67	30	\$ 48.09	63.71%

13

14 Please note how the DS1 unit costs decrease as larger
 15 terminals are deployed. The percent decrease is
 16 calculated in relation to the item shown with a OC3
 17 terminal size. This analysis indicates that as
 18 traffic volumes or demand increases, larger terminals
 19 with increased capacity are used. Use of larger
 20 terminals associated with increased traffic volume
 21 results in greater economies and lower unit costs.

1

2 Q. Please illustrate the effects of utilization
3 (Associated Variables) on a SONET ring in the
4 development of transport costs.

5

6 A. The following table shows the results from an exhibit
7 (Exhibit TOC-2 T. Cox Direct Testimony) that was filed
8 with my direct testimony. This table illustrates the
9 relationship of increased demand driving down unit
10 costs.

Terminal Size	# of Terminals	Terminal Utilization	Total Ring Miles	DS1 Unit Costs	Percent Decrease
OC48A	3	30%	30	\$ 91.23	
OC48A	3	40%	30	\$ 71.71	21.40%
OC48A	3	50%	30	\$ 59.97	34.27%
OC48A	3	60%	30	\$ 52.16	42.83%
OC48A	3	70%	30	\$ 46.58	48.94%
OC48A	3	80%	30	\$ 42.39	53.54%

11

12 Please note how the DS1 unit costs decrease as
13 utilization increases. The percent decrease is
14 calculated in relation to the item shown with 30%
15 utilization. This analysis indicates that as traffic
16 volumes or demand increases, with the same bandwidth
17 terminals the increased traffic volume results in
18 greater economies and lower unit costs.

19

1 **Q. Please illustrate the effects of distance (Associated**
 2 **Variables) in the development of transport costs?**

3

4 A. The following table shows the results from an exhibit
 5 (Exhibit TOC-3 T. Cox Direct Testimony) that was filed
 6 with my direct testimony. This table illustrates the
 7 relationship of increased distance and the effect on
 8 unit costs.

Terminal Size	# of Terminals	Terminal Utilization	Total Ring Miles	DS1 Unit Costs	Percent Increase
OC48A	3	67%	30	\$ 48.09	
OC48A	4	67%	40	\$ 50.17	4.33%
OC48A	5	67%	50	\$ 52.25	8.65%
OC48A	6	67%	60	\$ 54.34	13.00%
OC48A	7	67%	70	\$ 56.42	17.32%
OC48A	8	67%	80	\$ 58.50	21.65%

9

10 It is obvious that as the distance around a transport
 11 ring increases, more fiber cable must be placed,
 12 thereby increasing the cost of bandwidth on that ring.

13

14 In summary, unbundled transport unit costs vary
 15 between specific geographic points due to the
 16 underlying variances in the traffic volumes, distances
 17 and ring designs that commonly occur in the network.
 18 In order to properly estimate the geographic-specific
 19 forward-looking cost of unbundled transport

1 facilities, the impact of these geographic-specific
2 factors must be considered.

3

4 **Q. Please describe some of the BellSouth exchanges and**
5 **what kind of transport systems probably exist.**

6

7 A. The following displays a count of wire centers by
8 exchange name. A list of these wire centers can be
9 found in the BellSouth cost calculator under the state
10 deaveraged results.

11	Ft. Lauderdale	10 wire centers
12	Jacksonville	13 wire centers
13	Miami	24 wire centers
14	Orlando	6 wire centers

15 Based on my experience with transport networks (ring
16 designs), I would expect there to be multiple OC48
17 SONET rings in these exchanges. These rings would
18 most likely have utilizations in the range of 60 - 80
19 %. Based on the way a statewide average was developed
20 in the BellSouth cost study, the per unit DS1 cost for
21 BellSouth in these exchanges should be substantially
22 less than the current mid-nineties cost results as
23 proposed by BellSouth. In reviewing the utilization
24 table contained in the BellSouth cost model, the
25 utilization factors for the OC48 terminals are in the

1 range of 20% - 40%, depending on what type of OC48
2 terminal being used.

3

4 **Q. How should the transport cost be developed for a UNE**
5 **proceeding?**

6

7 A. To correctly recognize the cost characteristics for
8 deaveraging purposes, the cost should recognize the
9 following key items:

- 10 • Reflect geographic-specific characteristics.
- 11 • Reflect geographic-specific terminal bandwidth.
- 12 • Reflect geographic-specific utilization.
- 13 • Reflect geographic, forward-looking ring
14 designs.
- 15 • Reflect the cost on a route-specific basis by
16 geographic area.

17

18 **Q. Does BellSouth's cost study reflect geographic-**
19 **specific cost results?**

20

21 A. No. While they do have forward-looking ring designs
22 (with the exception of the low utilizations), their
23 results are based on a statewide average, as shown on
24 BellSouth witness D. Daonne Caldwell's exhibit DDC-4.

1

2 Q. What kinds of variation in cost can be seen with data
3 from BellSouth's interoffice transport cost study?

4

5 A. The following is a summary of cost results for ring
6 designs 1, 4 and 6, excluding the application of a
7 probability factor and reprocessing individually
8 through BellSouth's cost calculator.

	Description	Ring Design #1	Ring Design #4	Ring Design #6	Statewide Average
D.4.1	I.O. Ded. DS1 Per Mile	\$ 0.1194	\$ 0.1194	\$ 0.3237	\$ 0.2035
D.4.2	I.O. Ded. DS1 Facility Term.	\$72.09	\$ 171.01	\$ 58.36	\$ 93.31

9

10 Design #1 consists of a single OC48 ring design that
11 resulted in cost for both elements below the statewide
12 average. Design #4 consists of three OC48 rings that
13 resulted in cost lower for the per mile element, but
14 higher for the termination element when compared to
15 the statewide average. Design #6 consists of a single
16 OC12 ring design that resulted in a higher cost per
17 mile and a lower cost per termination.

18

19 This clearly indicates, when utilizing the data
20 provided by BellSouth, that there are variations in
21 the cost of interoffice transport. While these
22 results do show variations, they still do not reflect

1 geographic-specific factors, such as specific ring
2 designs and utilization.

3

4 **Q. Could changes be made in BellSouth's costing process**
5 **to reflect geographic-specific cost results?**

6

7 A. Yes. The first step of the process should consist of
8 identifying the forward-looking ring design
9 characteristics on a ring-specific basis by geographic
10 area. The ring design characteristics would consist
11 of the following:

- 12 • Ring-Specific Bandwidth (OC3, OC12, OC48)
- 13 • Ring-Specific Quantity of Nodes
- 14 • Ring-Specific Quantity of Miles (Utilizing
15 existing Wire Center Locations)
- 16 • Ring-Specific Utilization

17 The second step would be to produce route-specific
18 cost results by geographic area reflecting the ring-
19 specific cost characteristics that were identified in
20 step one.

21

22

1 **Q. Should the Florida Public Service Commission approve**
2 **BellSouth's interoffice transport costs presented in**
3 **Docket No. 990649-TP?**

4
5 A. No. BellSouth has not met some of the core
6 requirements associated with the development of cost
7 support for unbundled network elements. The core
8 requirements being that cost have to be deaveraged, at
9 the minimum, into three zones per the FCC.

10
11 In Section 51.507(f) of its Rules, the FCC requires
12 that unbundled network elements be geographically
13 deaveraged into at least three cost-related zones.
14 These can be either the zones established for the
15 deaveraging of interstate transport rates, or zones
16 determined by the state commission.

17
18 Certainly the per unit cost of a DS1 would be lower
19 for the large, urban, high bandwidth areas of Ft.
20 Lauderdale, Jacksonville, Miami and Orlando versus
21 some of the more rural, lower bandwidth areas of
22 Florida. With higher bandwidth demands being one of
23 the fastest growing markets for ILEC's, this UNE
24 should be deaveraged to reflect geographic cost
25 differences caused by placing higher bandwidth SONET

1 terminals and higher utilization/demand on these SONET
2 rings.

3

4 **Q. Does this conclude your testimony?**

5

6 **A. Yes.**

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**
2 **SPRINT'S REBUTTAL TO BELL SOUTH'S REVISED DIRECT TESTIMONY**
3 **OF**
4 **TALMAGE O. COX, III**

5
6 **Q. Please state your name, business address, employer and**
7 **current position.**

8
9 **A. My name is Talmage O. Cox, III. My business address is**
10 **6360 Sprint Parkway, Overland Park, Kansas, 66251 I am**
11 **employed as Manager of Service Cost for Sprint/United**
12 **Management Company. I am testifying on behalf of**
13 **Sprint-Florida, Inc. and Sprint Communications L.P.**
14 **(hereafter referred to as "Sprint").**

15
16 **Q. Are you the same Talmage O. Cox, III that submitted**
17 **direct and rebuttal testimony on behalf of Sprint?**

18
19 **A. Yes, I am.**

20
21 **Q. What is the purpose of your Testimony?**

22
23 **A. To clarify the deficiency of the interoffice transport**
24 **costing process that BellSouth Telecommunications,**
25 **Inc. (hereafter referred to as "BellSouth") utilized**

1 in the completion of their interoffice transport cost
2 studies filed August 18, 2000.

3

4 Q. Has BellSouth's position proposed by witnesses D.
5 Daonne Caldwell and Alphonso J. Varner concerning the
6 geographic deaveraging of transport changed with the
7 revised interoffice transport cost study filed August
8 18, 2000?

9

10 A. No. BellSouth's witnesses have proposed that it is
11 not necessary to deaverage interoffice transport cost
12 studies and that a per mile cost structure reflects
13 geographic deaveraging.

14

15 Q. Would the same conclusions put forth in your refiled
16 rebuttal testimony (filed August 21, 2000) still be
17 applicable with BellSouth's revised cost studies and
18 direct testimony filed August 18, 2000?

19

20 A. Yes. In reviewing BellSouth's August 18, 2000 filing,
21 the same conclusions apply as stated in my refiled
22 rebuttal testimony filed August 21, 2000.

23

24 Q. What are the conclusions from your refiled rebuttal
25 testimony filed August 21, 2000?

1

2 A. The following conclusions were identified as
3 deficiencies in BellSouth's interoffice transport cost
4 model.

- 5 • Does not reflect geographic-specific
6 characteristics.
- 7 • Does not reflect geographic-specific terminal
8 bandwidth.
- 9 • Does not reflect geographic-specific
10 utilization.
- 11 • Does not reflect the cost on a route-specific
12 basis by geographic area.
- 13 • Not in compliance with the FCC's requirement
14 that unbundled network elements be
15 geographically deaveraged into at least three
16 cost-related zones.

17 Based upon the above deficiencies the Florida Public
18 Service Commission should not approve the interoffice
19 transport cost results provided by BellSouth.

20

21 **Q. Does this conclude your testimony?**

22

23 A. Yes.

1 MR. FONS: And that concludes Sprint's case.

2 CHAIRMAN DEASON: Okay. Witness Barta.

3 MR. GROSS: Mr. Chairman, members of the
4 Commission. The FCTA offered prefiled testimony, rebuttal
5 testimony of William J. Barta, dated July 31st, 2000,
6 consisting of 35 pages. And we would ask that that
7 testimony be inserted into the record as though read.

8 CHAIRMAN DEASON: Without objection it shall be
9 so inserted.

10 MR. GROSS: In connection with that testimony,
11 Mr. Barta filed Exhibits WJB-1, 2 and 3. We would like
12 those exhibits marked for identification.

13 CHAIRMAN DEASON: Exhibit 159.

14 MR. GROSS: We would request and move that those
15 exhibits be admitted into the record.

16 CHAIRMAN DEASON: Without objection, Exhibit 159
17 shall be admitted.

18 MR. GROSS: Additionally, William J. Barta
19 offered supplemental rebuttal testimony date August 28th,
20 2000, consisting of eight pages. We would offer that
21 testimony to be inserted into the record as though read.

22 CHAIRMAN DEASON: Without objection, it shall be
23 so inserted.

24 MR. GROSS: In connection with that testimony,
25 there were Exhibits WJB-1, 2, 3, 4 and 5. We would

1 request that those exhibits be marked for identification.

2 CHAIRMAN DEASON: Exhibit 160.

3 MR. GROSS: And we would move those exhibits
4 into the record.

5 CHAIRMAN DEASON: Without objection, Exhibit 160
6 shall be admitted.

7 MR. GROSS: Thank you.

8 (Exhibits 159 and 160 marked for identification
9 and admitted into the record.)

10

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25

1 A. GTE, BellSouth, and Sprint have submitted recurring and nonrecurring cost
2 studies in response to the Commission's list of issues outlined in its March 16,
3 2000 Order. The companies have also advanced their proposals for
4 geographically deaveraging UNEs. GTE and BellSouth, in particular, argue that
5 the geographic deaveraging of UNE rates should be accompanied by rate
6 rebalancing and the establishment of a State universal service fund.

7
8 GTE's and BellSouth's urgency to establish a state universal service fund in
9 conjunction with the geographic deaveraging of UNEs strays from the purpose of
10 the instant proceeding. There is no mention of rate rebalancing or the
11 establishment of a universal service fund in the Commission's list of issues to
12 address in this phase of the proceeding. Furthermore, GTE and BellSouth have
13 yet to substantiate the pressure on universal service that they maintain will result
14 in response to the implementation of deaveraged UNE rates. In this proceeding,
15 the Commission's attention and resources should be focused on implementing
16 fair and reasonable permanent rates for unbundled network elements. The more
17 appropriate forum to determine the need, if any, for a universal service support
18 mechanism is in a separate docket.

19
20 GTE's proposal to deaverage UNE rates based upon the previously approved
21 statewide average rates of each ILEC does not capture the significant variation in
22 the average costs of its Florida wire centers. In the same manner, BellSouth's
23 "rate group to zone mapping" methodology blurs the distinction of cost
24 differences among wire centers and between geographic zones. In order to send
25 the correct pricing and investment signals to CLECs, the companies should

1 geographically deaverage UNE rates upon a methodology that logically groups
2 wire centers with similar cost characteristics together.

3
4 GTE asserts that its Nonrecurring Cost Studies are forward-looking. A closer
5 review, however, indicates that many of the nonrecurring charges to be assessed
6 CLECs are premised on less efficient, manual ordering and provisioning
7 practices. For instance, as part of the ordering function, GTE projects that it will
8 take nearly 8 hours to establish a single CLEC account. The provisioning
9 practices are also dependent upon manual procedures; GTE states that the
10 Facility Assignment Center will require manual assignment for most of the
11 UNEs offered by the Company. These may be the embedded ordering and
12 provisioning practices of GTE but they are not representative of a forward-
13 looking cost study.

14
15 **Issue 1: What factors should the Commission consider in establishing rates and**
16 **charges for UNEs (including deaveraged UNEs and UNE combinations)?**

17
18 **Q. What factors do you believe the Commission should consider in establishing**
19 **permanent rates for unbundled network elements and UNE combinations?**

20 **A.** The primary consideration of the Commission in its efforts to establish
21 permanent rates for unbundled network elements and UNE combinations is to
22 base the rates upon fully supported cost studies that closely follow the
23 appropriate costing methodology. If appropriate cost-based rates are developed,
24 then the attendant concerns of regulators, the incumbent local exchange carriers,
25 and other parties should be satisfied. Appropriate cost-based rates will promote

1 fair and responsible competitive entry under the requirements of the
2 Telecommunications Act of 1996 and will protect the incumbent local exchange
3 carriers as the providers of the facilities necessary to provision the unbundled
4 network elements and UNE combinations.
5

6 **Q. In developing rates for an incumbent local exchange carrier's unbundled**
7 **network elements, what costing methodology best furthers the pro-**
8 **competitive objectives of this Commission?**

9 A. A forward-looking economic cost study is the most appropriate methodology to
10 adopt when the study's objective is to replicate the conditions of a competitive
11 market. If unbundled network elements are priced at the incumbent carrier's
12 forward-looking economic costs, then competing telecommunications service
13 providers should have the opportunity to capture the same types of economies of
14 scale and scope that the incumbent local exchange carrier benefits from. As a
15 result, the telecommunications carriers requesting unbundled network elements
16 should be able to produce more efficiently and compete more effectively – all to
17 the ultimate benefit of the consumer of telecommunications services. In
18 addition, prices based upon a forward-looking costing methodology reduce the
19 ability of the incumbent local exchange carrier to engage in anti-competitive
20 pricing behavior.
21

22 **Q. Do the incumbent local exchange carriers under the jurisdiction of the**
23 **FPSC support the implementation of UNE and UNE combination rates**
24 **based upon a forward-looking cost methodology?**
25

1 A. BellSouth and GTE are opposed to the establishment of UNE rates based upon
2 forward-looking, economic costs while Sprint appears willing to base its rates
3 upon such pricing standards.

4
5 **Q. What aspects of forward-looking, economic cost principles do BellSouth and**
6 **GTE disagree with?**

7 A. The witnesses on behalf of BellSouth and GTE state that a forward-looking,
8 economic cost methodology will not provide for the full recovery of the carriers'
9 costs in the provision of UNEs. Mr. Dennis B. Trimble, on behalf of GTE, states
10 that "GTE has long maintained that UNE prices must, in the aggregate, reflect an
11 ILEC's actual costs" (Direct Testimony, page 4, lines 16 and 17).

12
13 Mr. Alphonso J. Varner, on behalf of BellSouth, states "[O]ptimizing
14 competitive development would require prices to be set, at a minimum, to cover
15 the actual costs incurred by the Incumbent Local Exchange Carrier ('ILEC')"
16 (Direct Testimony, page 5, lines 8 through 10). In addition, Mr. Varner
17 apparently believes that a forward-looking, economic cost methodology prevents
18 BellSouth from recovering its shared and common costs:

19 "A consequence of pricing that insufficiently recovers shared cost
20 is that it inappropriately encourages the ILEC to invest in
21 technology that involves low shared cost (which reduces
22 economies of scope) and high incremental costs, even if that is not
23 the lowest cost technology" (Direct Testimony, page 10, lines 19
24 through 22).

25 and

1 "Since ALECs benefit from the use of facilities that generate the
2 costs in question, those ALECs should contribute to the recovery
3 of the shared and common costs that result from economically
4 efficient provisioning of those facilities" (Direct Testimony, page
5 12, lines 5 through 8).

6
7 Finally, it is Mr. Varner's perception that a forward-looking, economic cost
8 methodology does not provide BellSouth the opportunity to earn a reasonable
9 profit as permitted by the 1996 Act:

10
11 "Q. Does pricing at economic cost provide for a reasonable
12 profit as permitted by the Act?

13 B. It certainly does not. Proponents of this theory equate
14 economic profit with cost of capital, which is not an
15 appropriate comparison. Cost of capital is a cost of doing
16 business. It is well accepted that an economic profit cannot
17 be realized until all costs, including the cost of capital, have
18 been recovered" (Direct Testimony, page 18, line 21
19 through page 19, line 2).

20
21 **Q. Why is it improper to include the actual costs of the ILEC in the**
22 **development of UNE rates?**

23 A. The embedded costs of BellSouth and GTE represent their historical or
24 embedded costs and not forward-looking, economic costs. By definition,
25 embedded costs reflect historical purchase prices, network configurations, and

1 operating procedures. To the extent that these cost areas reflect any past
2 inefficiencies, prices based upon embedded costs will lead to inappropriate cost
3 recovery and would not be recovered in a competitive market. On the other
4 hand, prices based upon forward-looking, economic costs give the appropriate
5 signals to producers and consumers and ensure efficient entry and utilization of
6 the telecommunications infrastructure.

7
8 **Q. Is Mr. Varner's concern that the forward-looking, economic cost**
9 **methodology prevents the recovery of BellSouth's shared and common**
10 **costs valid?**

11 A. No. The incumbent carriers can recover a reasonable share of their forward-
12 looking joint and common costs under the forward-looking, economic cost
13 methodology. Most parties, including CLECs, acknowledge that the incumbent
14 local exchange carriers are entitled to recover an appropriate portion of their
15 forward-looking joint (i.e. shared) and common costs. Perhaps Mr. Varner is
16 reaching the misguided conclusion that any challenge to the level of joint and
17 common costs included in the Company's cost studies is equivalent to a denial of
18 recovery through the costing methodology.

19
20 **Q. Should the incumbent carriers be allowed to include "an economic profit,"**
21 **in their proposed UNE rates that is over and above the fair and reasonable**
22 **cost of capital as advocated by Mr. Varner?**

23 A. No. Mr. Varner treats BellSouth's recovery of its fair and reasonable cost of
24 capital "as a cost of doing business" (Direct Testimony, page 19, line 1). As a
25 result of earning its cost of capital, BellSouth will ensure it continues to attract

1 capital at reasonable terms, thereby allowing the company to maintain an
2 efficient capital structure and a sound dividend policy. The company should
3 have the financial flexibility to innovate and expand yet still meet its operating
4 expenses provided its financial results are sufficient to recover its cost of capital.
5

6 On the other hand, profits in excess of the fair and reasonable cost of capital
7 should not be construed as "economic." Mr. Varner's assertion that this is a
8 well-accepted definition of "economic profit" is rather broad unless, of course,
9 the audience is the ILEC community. A more reasonable view with respect to
10 profits that exceed a company's cost of capital holds that such profits are
11 considered supra-normal and temporary. Absent artificial barriers to entry (e.g.
12 monopoly status of the market provider) in the marketplace, the firm will only
13 realize the supra-normal profits in the short-term because other capable firms
14 will be attracted to the prospect of earning supra-normal profits. As more firms
15 enter and compete in the marketplace, prices will be driven back towards the
16 level where only the fair and reasonable cost of capital is being recovered.
17

18 **Q. What are the consequences of establishing forward-looking, economic cost-**
19 **based rates for unbundled network elements according to Mr. Varner?**

20 A. Mr. Varner's dire outlook for the local exchange marketplace is premised on his
21 belief that the rates based upon economic costs do not permit full cost recovery
22 and that inadequate UNE rates will result from its application. According to Mr.
23 Varner, the inadequate UNE prices will reduce the ILECs' incentives to invest in
24 new technology and will promote inefficient market entry as CLECs will choose
25 to consume the ILECs' facilities instead of making their own investments (Direct

1 Testimony, page 10, line 4 through page 11, line 5). Mr. Varner concludes that
2 forward-looking, economic cost-based rates for unbundled network elements will
3 result in "the marginalization of the ILEC."

4
5 "Another troublesome outcome of setting prices too low would be
6 the marginalization of the ILEC. Setting UNE and interconnection
7 services prices at unreasonably low levels will hinder BellSouth's
8 ability to compete because the ALECs will have an artificial
9 pricing advantage over BellSouth. The ALEC will, therefore, be in
10 a better position to 'cherry pick' the more profitable, mainly
11 business customers, and the ILEC will lose the low cost, high
12 margin urban customers to competition" (Direct Testimony, page
13 12, line 20 through page 13, line 1).

14
15 **Q. Do you agree with Mr. Varner's assessment that forward-looking, economic**
16 **cost-based rates for unbundled network elements will foster "cherry**
17 **picking" by CLECs of the company's most attractive customers?**

18 **A.** No, reasonable, forward-looking rates for unbundled network elements should
19 make it possible for CLECs to reach a wider range of consumers because the
20 economies of scale and scope that were referred to earlier will be available on
21 competitive terms. With reasonable, economic cost-based rates, CLECs will be
22 in a better position to profitably serve the average consumer, not just the high
23 revenue-high margin subscriber.

1 Ironically, the very threats to market stability that Mr. Varner discusses in his
2 testimony are more likely to manifest themselves under the costing approach
3 advocated by him. When the cost studies prepared by BellSouth result in such
4 high rates for unbundled network elements that it becomes unprofitable to serve
5 any consumers but those with the highest margins, then CLECs will have no
6 recourse but to seek out those high margin customers. Mr. Varner's may label
7 this market strategy "cherry picking" but it is nothing more than a competitive
8 reality.

9
10 **Q. What remedies does Mr. Varner propose to cure the market deficiencies he**
11 **perceives will surface in the event forward-looking, economic cost-based**
12 **rates for unbundled network elements are established?**

13 A. First, Mr. Varner recommends that BellSouth be permitted full recovery of its
14 actual costs and that the Company be able to design rates based upon other
15 considerations, such as market forces. Furthermore, Mr. Varner states that the
16 rates for unbundled network elements should include a level of profit over and
17 above its fair and reasonable cost of capital.

18
19 Mr. Varner also claims that "geographically deaveraged pricing places an
20 additional burden on universal service" (Direct Testimony, page 7, lines 21 and
21 22). In response to this pressure on universal service (which the Company has
22 yet to substantiate), Mr. Varner maintains that geographic deaveraging of UNE
23 rates must be concurrent with "the implementation of an appropriate universal
24 service support mechanism and/or the implementation of adequate rate
25 rebalancing" (Direct Testimony, page 7, lines 22 through 25). Indeed, Mr.

1 Varner emphasizes his desire for universal service support: “the most important
2 issue is to immediately address the implementation of an appropriate state
3 universal service fund” (Direct Testimony, page 9, lines 7 through 9).

4
5 **Q. Do you believe that Mr. Varner’s “remedies” represent sound, regulatory
6 policy?**

7 A. No. The pitfalls associated with Mr. Varner’s recommended costing scheme
8 have already been pointed out. Full recovery of actual costs, built-in “economic
9 profits,” and market-based pricing will only serve to retard the development of
10 efficient, local exchange competition.

11
12 Mr. Varner’s urgency to establish a State universal service fund strays from the
13 purpose of the instant proceeding. This proceeding is intended to establish
14 permanent rates for unbundled network elements, deaveraged UNEs, and UNE
15 combinations. The more appropriate forum to determine the need, if any, for an
16 interim universal service support mechanism is in a separate docket. In fact, the
17 Commission has already considered the need for an interim universal service
18 fund in a prior docket. At this point, the Commission’s attention and resources
19 are more appropriately focused on implementing fair and reasonable permanent
20 rates for unbundled network elements. There is no reason to further delay the
21 widespread availability of UNEs or unduly complicate this undertaking with
22 other issues that may be relevant but can be better addressed in a separate
23 proceeding.

1 **Q. So far the discussion of prices for unbundled network elements has been**
2 **centered on rates that are perceived to be too low. Is Mr. Varner equally**
3 **concerned with rates that are set for unbundled network elements that are**
4 **set too high?**

5 A. Mr. Varner acknowledges that “[P]rices that are set either too high or too low
6 will not, in the long run, benefit the consumer” (Direct Testimony, page 5, lines
7 2 and 3). But Mr. Varner is far less concerned with prices that are set too high
8 than those that are set too low. In Mr. Varner’s view, excessive rates for
9 unbundled network elements do not pose any of the market disruptions that stem
10 from reasonable, economic cost-based UNE rates: “[O]f course, setting prices
11 too high will give ALECs the maximum incentive to construct their own
12 facilities and, in the long run, infrastructure competition will develop sooner”
13 (Direct Testimony, page 14, lines 15 through 17).

14
15 **Q. Do you agree with Mr. Varner that the only downside to setting UNE rates**
16 **too high is that CLECs will invest in their own infrastructure sooner than**
17 **they would have absent appropriate cost-based rates?**

18 A. No. Mr. Varner’s cavalier dismissal of above-cost UNE rates ignores the fact
19 that CLECs are financially unable to develop a ubiquitous telecommunications
20 infrastructure from scratch. As Mr. Varner well knows, the costs of investing in
21 duplicative facilities are prohibitive. The undertaking to construct duplicative
22 loops and switching facilities is massive, time-consuming, and in many
23 instances, uneconomical given the need to reach individual subscribers over wide
24 areas. BellSouth had the luxury of growing its network to meet demand over a
25 period of more than a hundred years as a monopoly utility with ample funding

1 available from its ratepayers. Those privileges cannot and will not be extended
2 to CLECs.

3
4 **Issue 2: (a) What is the appropriate methodology to deaverage UNEs and
5 what is the appropriate rate structure for deaveraged UNEs?**

6 **(b) For which of the following UNEs should the Commission set
7 deaveraged rates?**

8 (1) loops (all);

9 (2) local switching;

10 (3) interoffice transport (dedicated and shared);

11 (4) other (including combinations).

12
13 **Q. On what basis should unbundled network elements be deaveraged (Issue
14 2(a))?**

15 **A.** The FCC requires that incumbent local exchange carriers deaverage rates for
16 those unbundled network elements that exhibit significant geographical cost
17 differences. The FCC specifies that UNE rates deaveraged across three
18 geographic zones is presumptively sufficient. The deaveraging of unbundled
19 network elements and UNE combinations should be based upon a rationale
20 assignment where the underlying costs of providing the UNE are consistent
21 within the geographic zone. For instance, the average cost of a loop can be
22 determined on a wire center basis. Wire centers with similar cost characteristics
23 should be grouped together in order to develop more accurate cost-based rates
24 for each geographic zone.

25

1 **Q. How do the ILECs propose to deaverage unbundled network elements**
2 **across three geographic zones?**

3 A. BellSouth advocates that the wire centers within its existing rate groups be
4 classified into one of three zone designations.

5
6 GTE proposes a cafeteria plan for the Commission's consideration: (1) establish
7 a single rate for each of the three non-rural incumbent local exchange carriers in
8 an attempt to comply with the FCC's three geographic zone requirement; (2)
9 establish three new zones for the entire state after examining the cost filings of
10 all the ILECs; or (3) establish geographic zones based upon wire center cost
11 differences.

12
13 Sprint recommends that geographic zones be constructed such that "the average
14 rate in each zone is no more than 20% higher or 20% less than the forward-
15 looking cost of providing that element" (Direct Testimony of Mr. James W.
16 Sichter, page 16, line 4 through line 6).

17
18 **Q. Do you agree with BellSouth's proposal to deaverage unbundled network**
19 **elements into three geographic zones?**

20 A. No. BellSouth's rate group to zone mapping approach results in geographic
21 zones that include wire centers with wide-ranging average monthly loop costs.
22 The extent of the low cost/high cost wire center combination within each
23 proposed geographic zone is material and blurs the distinction of cost differences
24 among wire centers and between geographic zones. There should be a more
25

1 homogenous classification of wire centers to geographic zones based upon the
2 cost characteristics of the individual wire centers.

3
4 **Q. Do you believe that GTE's proposals to deaverage unbundled network
5 elements will result in cost-based rates?**

6 A. No, except for possibly the third menu item. GTE's first proposal is an
7 oversimplistic attempt to satisfy the FCC's deaveraging requirements. Under the
8 proposal, "deaveraged rates" would mirror each non-rural ILECs' statewide
9 average costs. Such a high level of aggregation of costs does little to capture the
10 significant cost variations in the provision of unbundled network elements that
11 exist within the carriers' service territories. Thus, competing carriers will
12 continue to be charged statewide average rates for unbundled loops when the
13 costs of providing those loops may be far below the carriers' statewide average.

14
15 In contrast to its first proposal, GTE's second plan for deaveraging unbundled
16 network elements burdens the effort with unnecessary complexity. GTE requests
17 that the Commission examine all ILEC cost submissions in the state, presumably
18 those of the rural as well as the non-rural carriers, in its determination of the
19 appropriate geographic zones. It is unclear whether the GTE proposal would
20 assign the unbundled network elements of different carriers to the same
21 geographic zone or whether company-specific geographic zones would prevail.
22 But it does seem certain that such an exercise would introduce further delay into
23 the implementation of geographic deaveraged rates for unbundled network
24 elements.

25

1 GTE's third alternative is to base geographic deaveraging upon wire center cost
2 differences. The proposal has merit but the exact methodology has yet to be
3 fully presented by the Company. Thus, it is premature to embrace the wire
4 center cost difference approach at this time.

5
6 **Q. Do you find Sprint's proposal to deaverage unbundled network elements**
7 **reasonable?**

8 A. No. As a matter of consistency, the deaveraging methodology should be the
9 same for all of the ILECs and based upon three geographic zones. A three
10 geographic zone rate plan is also consistent with the methodology that the
11 Federal Communications Commission has declared to be presumptively
12 sufficient. The use of more than three geographic zones for Sprint's unbundled
13 network elements introduces unnecessary planning, marketing, and
14 administrative burdens upon CLECs. The competitive carriers will have to
15 commit more resources to developing network and marketing plans to serve
16 specific geographic areas. If the Commission approves the Company's
17 methodology, it should limit its approval to Sprint and not impose the
18 methodology upon GTE or BellSouth.

19
20 **Q. What is your recommendation with respect to assigning UNEs to geographic**
21 **zones?**

22 A. I recommend that the methodology adopted as part of the stipulation reached
23 among the parties in support of interim UNE rates in Florida be used for
24 permanent pricing purposes. In the stipulation methodology, the deaveraging of
25 the unbundled loop is based upon the ratio of an individual wire center's average

1 monthly loop cost to the statewide average monthly loop cost. All wire centers
2 with costs of 0% to 100% of the statewide average loop cost are assigned to
3 Zone 1. All wire centers with average loop costs ranging from 101% to 200% of
4 the statewide average are classified to Zone 2. Finally, all wire centers with
5 average loop costs in excess of 200% of the statewide average cost are placed in
6 Zone 3.

7
8 **Q. What is the appropriate rate structure for deaveraged UNEs (Issue 2(a))?**

9 A. The rates for unbundled network elements and UNE combinations should be
10 structured to recover the ILECs costs in the manner in which they are incurred.
11 In general, recurring costs should be recovered through monthly recurring rates
12 while reasonable, nonrecurring charges should be assessed to recover
13 nonrecurring costs.

14
15 By adhering to these general principles of rate design, the appropriate pricing
16 signals will be sent to requesting carriers and assist in their decision to lease or
17 construct their own network facilities. The development of competition should
18 also be encouraged by allowing the competing carriers to incur costs in a manner
19 similar to those incurred by the ILECs.

20
21 **Q. For which unbundled network elements and UNE combinations should
22 deaveraged rates be established (Issue 2(b))?**

23 A. The rates for an unbundled network element should be deaveraged where
24 significant cost variations are present. For instance, the cost attributes of a loop
25 reflect geographic differences. In highly concentrated urban areas, loop lengths

1 tend to be shorter than in the more sparsely populated rural areas. Since loop
2 length is considered to be a major cost driver in the provision of a loop, it is
3 reasonable for the Commission to geographically deaverage the rates for an
4 unbundled loop.

5
6 On the other hand, one would not expect switching costs to differ materially
7 between similarly configured switches whether they are deployed in an urban
8 market or a rural wire center. Other UNEs, such as interoffice transport, already
9 have rate structures (i.e. on a per mile basis) that account for geographic cost
10 variations.

11
12 The deaveraging of rates for UNE combinations should be based upon the cost
13 characteristics of the underlying network components. Thus, the rate for a UNE
14 combination that depends upon a loop (e.g. unbundled loop and transport) should
15 reflect the deaveraged rate for an unbundled loop.

16
17 **Issue 7: What are the appropriate assumptions and inputs for the following**
18 **items to be used in the forward-looking recurring UNE cost studies?**

- 19 (a) network design (including customer location assumptions);
- 20 (b) depreciation;
- 21 (c) cost of capital;
- 22 (d) tax rates;
- 23 (e) structure sharing;
- 24 (f) structure costs;
- 25 (g) fill factors;

- 1 (h) manholes;
- 2 (i) fiber cable;
- 3 (j) copper cable;
- 4 (k) drops;
- 5 (l) network interface device;
- 6 (m) digital loop carrier costs;
- 7 (n) terminal costs;
- 8 (o) switching costs and associated variables;
- 9 (p) traffic data;
- 10 (q) signaling system costs;
- 11 (r) transport system costs and associated variables;
- 12 (s) loadings;
- 13 (t) expenses;
- 14 (u) common costs;
- 15 (v) other.

16

17 **Q. What assumptions and input values have you reviewed that determine the**
18 **network configuration designed by each of the cost proxy models (Issue**
19 **7(a))?**

20 **A.** Although I have reviewed the documentation submitted in support of each of the
21 cost proxy models' design of outside plant facilities, my recommendation is
22 limited to the copper/fiber crossover point. Other parties to the proceeding,
23 however, are likely to raise valid concerns challenging additional assumptions
24 and input values that are fundamental to the network configuration design of the
25 ILECs' cost proxy models. A more efficient and cost-effective network

1 configuration may very well be realized from their recommendations.
2 Presumably, the model enhancements resulting from these recommendations will
3 produce lower overall UNE rates.
4

5 **Q. What does the copper/fiber crossover point refer to in the ILECs' cost proxy
6 model?**

7 A. The copper/fiber crossover point is a user-adjustable input value in each of the
8 ILECs' cost proxy models. The copper/fiber crossover point refers to the
9 threshold where fiber facilities are used in lieu of copper facilities. Each of the
10 ILECs' cost proxy models adopt a default input value of 12,000 feet for the
11 copper/fiber crossover threshold.
12

13 **Q. What is the appropriate copper/fiber crossover point to use as an input
14 value in the cost proxy models' design of the network?**

15 A. The copper/fiber crossover point should be adjusted to 18,000 feet. A model
16 platform that uses 18,000 foot copper loop lengths will support appropriate
17 quality levels of services in most cases. The 12,000 foot constraint may ensure
18 the provision of all services, including video services, but it burdens the majority
19 of UNE rates with additional and unnecessary costs.
20

21 **Q. What is meant by the sharing of support structures (Issue 7(e))?**

22 A. Structure sharing refers to the practice of sharing investments in poles, trenches,
23 and conduits with other utilities and/or carriers.
24
25

1 **Q. What level of structure sharing is assumed in each of the ILECs' cost proxy**
2 **models?**

3 A. It is difficult to separately identify the extent of structure sharing assumed in the
4 BellSouth cost proxy model. As explained by the Company's witness:

5 "BellSouth utilizes loading factors to identify the amount of pole
6 and conduit investment required to support the associated aerial
7 and underground cable. During the development of these factors,
8 anticipated net rents (expenses paid to other parties for attaching to
9 their structures less revenues received from others for attaching to
10 BellSouth's structures) from sharing arrangements are considered.
11 Thus, implicitly structure sharing is reflected in the calculation. . .
12 Sharing of trenching is reflected in the in-plant factor associated
13 with buried cable. Since this factor is developed by analyzing the
14 relationship between total installed investments and material
15 prices, any savings gleaned from sharing of placement costs has
16 been considered" (Direct Testimony of D. Daonne Caldwell, page
17 42, line 24 through page 43, line 12).

18
19 According to the input values of the ICM, GTE assumes the level of structure
20 sharing to be one additional utility and/or carrier on poles and no other parties
21 and/or carriers sharing trenches or conduits.

22
23 In the Sprint TELRIC studies: "The structure sharing inputs are expressed in
24 terms of the percent of costs assigned to telephone, which equates to the
25 percentage of the structure cost that is borne by the ILEC. The reciprocal of this

1 input factor represents the portion of the structure cost that is borne by
2 companies other than the ILEC, such as power and/or cable companies. The
3 model inputs are segregated between feeder and distribution sub-loop
4 components, by aerial, buried and underground plant mix and by each of the nine
5 customer density zones” (Direct Testimony of Kent R. Dickerson, page 12, line
6 15 through line 24). In his Direct Testimony, Mr. Dickerson explains that the
7 structure sharing inputs for underground and buried feeder and distribution cable
8 were set at 85% and 80% for the majority of customers served by Sprint. The
9 structure sharing input for poles was set at 27% for all density zones.

10
11 **Q. What level of structure sharing is appropriate for the ILECs to assume in**
12 **the cost proxy models?**

13 A. I recommend that the structure sharing model values for BellSouth and GTE be
14 modified to include at least two additional parties sharing pole facilities. The
15 percentage of structure sharing among utilities and other users should increase in
16 the future as more parties require space on a limited number of facilities and
17 right-of-ways. My recommended structure sharing level recognizes that
18 although there will be more carriers seeking the economic benefits of structure
19 sharing, the opportunities for such sharing may be constrained for a number of
20 reasons, including engineering limitations.

21
22 **Q. What is a fill factor (Issue 7(g))?**

23 A. A fill factor represents the percentage of the network facility that is being used.
24 The network facilities of telecommunications common carriers are engineered
25 with an appropriate amount of spare capacity in mind. The spare capacity can

1 take the form of administrative spare, spare capacity attributed to modularity,
2 and demand related spare.

3
4 **Q. How do the fill factors adopted for feeder and distribution facilities affect**
5 **the cost estimates developed by the models?**

6 A. The fill factors used in the ILECs' cost proxy models affect the level of
7 investment required to provide services to customers. Lower than necessary
8 utilization rates increase total loop investment because the increase in required
9 capacity associated with lower fill factors increases the amount of loop plant
10 used to deliver telecommunications services. Optimistically robust fill factors
11 may jeopardize the quality of service.

12
13 The appropriate fill factor used in the cost proxy models should balance current
14 and expected demand levels as well as accommodate the requirements for
15 administrative and modular related spare capacity over the economic life of the
16 feeder and distribution facilities. Deploying facilities to satisfy demand that is
17 not expected to materialize until after the facilities have been retired represents
18 poor management judgment. A competitive firm would not be able to overcome
19 such errors of judgment by passing on the higher costs to its customers.

20
21 The economic lives that the incumbent carriers have assigned to distribution and
22 feeder facilities for capital recovery purposes should be consistent with the fill
23 factors developed as part of the efficient network configured by the cost proxy
24 models. For instance, if the incumbent carriers assign an economic life of 14
25 years for metallic distribution facilities, then it is not reasonable to size these

1 facilities to satisfy demand levels that may not emerge for 25 to 30 years in the
2 future, long after the facilities are projected to be retired.

3
4 **Q. Have you commented previously upon the level of operating expenses and**
5 **common costs that the incumbent carriers seek to recover through the**
6 **proposed UNE rates?**

7 A. Yes. In the prefiled testimony that I submitted on June 8, 2000, I commented
8 upon the level of total operating expenses, including common costs, that the
9 incumbent carriers project will be incurred on a forward-looking basis in the
10 provision of unbundled network elements. At an earlier point in this proceeding,
11 the Commission had ordered that the issues of operating expenses and common
12 costs be addressed by the intervenors in their June 8, 2000 prefiled testimony.
13 The Commission subsequently deferred the review of these issues until the
14 current round of testimony. Although my initial comments with respect to the
15 ILECs' operating expenses and common costs appear in my June 8, 2000
16 prefiled testimony, they are further discussed here as a matter of convenience.

17
18 **Q. How are the operating expenses developed in the ILECs' cost proxy models**
19 **(Issue 7(t))?**

20 A. The operating expenses proposed to be recovered by the ILECs are estimated by
21 massaging base period expense levels through a series of adjustments and
22 factors. The base year expenses may then be adjusted through inflation factors
23 and productivity offsets as well as "normalization" adjustments in an effort to
24 make the baseline data representative of forward-looking conditions. Other
25 adjustments may also be proposed such as an avoided retail expense adjustment,

1 activity based cost adjustments, special study adjustments, and shared and
2 common cost adjustments. Annual charge factors are also developed under a
3 costing pool methodology that assigns individual plant and expense account
4 activity to one or more cost pools.

5
6 **Q. What conclusions did you reach regarding the reasonableness of the level of**
7 **operating expenses included in the ILECs' cost studies?**

8 A. The results of my analyses suggest that the operating expenses included in
9 BellSouth's and GTE's cost studies appear overstated and not representative of
10 forward-looking conditions. For instance, the inflation factor of 3.2% to 3.5%
11 assumed by BellSouth exceeds the productivity offset of 3.1% resulting in a
12 growing level of expenses each year during the forecast period. GTE has made
13 an initial series of adjustments to its base year expenses (i.e. 1998 ARMIS data)
14 that actually increase the operating expenses prior to other adjustments.

15
16 One would expect lower levels of operating expenses to be projected on a
17 forward-looking basis assuming the network configurations of the cost proxy
18 models embrace the most efficient, least cost technology and the engineering and
19 operating practices of the carrier reflect productivity enhancements. As
20 presented in Exhibit__(WJB-1), the trend of BellSouth's and GTE's operations
21 indicate declining expense levels on a per access line basis over the last several
22 years. Therefore, an ILEC's proposal to recover a level of operating expenses
23 that exceeds its incurred costs should undergo rigorous scrutiny.

24
25 **Q. What are common costs (Issue 7(u))?**

1 A. Common costs refer to those costs that are common to all products and services
2 of the ILECs. These costs cannot be identified with the provision of any specific
3 service or group of services.

4
5 **Q. How do the ILECs propose to recover the common costs that have been**
6 **identified?**

7 A. The carriers propose to recover their projected common costs through a uniform
8 mark-up applied to the unbundled network elements and UNE combinations.
9 BellSouth proposes a mark-up of 6.24%, GTE advocates a "fixed allocator" of
10 18.1%, and Sprint caps the common cost mark-up at 15.00%.

11
12 **Q. What adjustment do you recommend to modify the level of common costs**
13 **the carriers seek to recover?**

14 A. As part of their effort to develop forward-looking expenses subject to recovery
15 through UNE rates, the carriers have made an adjustment to exclude the retail
16 costs that will be avoided in the wholesale environment. The avoided retail cost
17 adjustment, however, appears to understate the level of costs that should be
18 excluded from the cost studies. BellSouth claims that the percentage of retail
19 costs to be excluded on a forward-looking basis is 11.20%. The results of the
20 GTE cost studies indicate that only 8.30% of its forward-looking expenses are
21 attributed to retail costs.

22
23 The avoided retail cost adjustment should reflect the wholesale percentage
24 discount ordered by the Florida Public Service Commission for each carrier. In
25 the case of BellSouth, the FPSC ordered a resale discount of 21.83% for

1 residential customers and 16.30% for business customers. The avoided retail
2 cost discount ordered for GTE is 13.04%. The impact of substituting the
3 Commission-ordered wholesale percentage discount for each carrier's proposed
4 avoided retail costs can be found in Exhibit __ (WJB-2).

5
6 **Issue 8: What are the appropriate assumptions and inputs for the following items**
7 **to be used in the forward-looking non-recurring UNE cost studies?**

- 8 (a) network design;
9 (b) OSS design;
10 (c) labor rates;
11 (d) required activities;
12 (e) mix of manual versus electronic activities;
13 (f) other.

14
15 **Q. Did your review of GTE's Wholesale Non-Recurring Cost Study ("NRC**
16 **Study") find it to be based upon forward-looking practices (Issue 8(e))?**

17 A. No, not in all areas. The Company asserts that "[T]he UNE NRC Study is a
18 forward-looking study that accounts for the activities required to pre-order,
19 order, provision, and install products and services for Competitive Local
20 Exchange Carriers (CLECs)" (NRC Study, page 13-FL 1). A closer review of
21 the NRC Study, however, indicates that many of the nonrecurring charges to be
22 assessed CLECs requesting unbundled network elements are premised on less
23 efficient, manual ordering and provisioning practices.

1 **Q. Please provide an example where you have found the Company's**
2 **procedures to be overly reliant on manual processes?**

3 A. GTE claims in its NRC Study that CLECs can transmit their Local Service
4 Requests ("LSR") to the Company via a Manual Order, Semi-mechanized Order,
5 or a Mechanized Order "depending on the CLEC's systems, processes, and level
6 of mechanization" (NRC Study, page 13-FL 2). In actual practice, however, the
7 Mechanized Order process is not available as an option but GTE "will in the
8 future develop costs for the fully Mechanized Order process scenario" (NRC
9 Study, page 13-FL 2).

10
11 **Q. Is this the extent of the Company's reliance upon manual procedures in the**
12 **determination of its nonrecurring costs to provide UNEs and UNE**
13 **combinations?**

14 A. No. In the explanation of ordering function activities, GTE discusses the
15 involvement of a Service Representative at its National Open Market Centers
16 ("NOMC") for each of the ordering processing modes (i.e. Manual Mode, Semi-
17 mechanized Mode, and Mechanized Mode). The National Open Market Centers
18 serve as the single point of contact for pre-ordering and ordering local network
19 UNEs. In a parenthetical reference, the Company notes that:

20
21 "(For Exchange - Complex and Advanced/Special UNE services
22 all order entry is currently done manually by the NOMC personnel
23 regardless of the order receipt mode. For these types of orders, a
24 GTE Service Representative inputs the order and, if applicable, the
25

1 Data Gathering Form (DGF) into the system)" (NRC Study, page
2 14-FL 2).

3
4 Most the Company's proposed UNEs fall into the Exchange – Complex and the
5 Advanced/Special categories. Thus, CLECs will be assessed nonrecurring
6 charges based upon manual ordering procedures for the majority of UNEs.
7 Exhibit__(WJB-3) reproduces the matrix prepared by GTE of UNE categories
8 and associated UNEs and highlights those UNEs that are subject to the manual
9 order processing procedures.

10
11 **Q. Are the provisioning practices of the Company based upon more efficient**
12 **processes than the ordering function activities?**

13 **A.** No, not necessarily. In an explanation of the provisioning function, GTE states:

14
15 "Provisioning activities include facility assignment and switch
16 translations (if required). Exchange UNEs require manual
17 provisioning. For the Exchange – Basic UNE-Ps much of the
18 provisioning is automated. The Exchange – Basic services can be
19 provisioned using standard network components maintained in
20 inventory without specialized switch translations. The Facility
21 Assignment Center (FAC) consists of the Select, Special Products
22 Assignment Group (SPAG), and Provisioning Support groups.
23 These groups are involved only when there is system fall-out
24 requiring manual assignment and switch updates.

1 The Exchange – Complex UNE/UNE-Ps require more manual
2 provisioning due to switch translations, routing instructions, and
3 service arrangements” (NRC Study, page 15-FL 1).

4
5 The Company subsequently discloses the degree of manual assignment in
6 provisioning UNEs:

7
8 “The FAC has responsibility for assignment of outside plant
9 facilities and central office line equipment for Exchange – Basic,
10 Exchange – Complex, and Advanced/Special – Basic UNEs. **All**
11 **Exchange and Advanced/Special UNEs require manual**
12 **assignment.** The Assignment, Activation, and Inventory System
13 (AAIS) will automatically process an order for Exchange – Basic
14 UNE-Ps whenever possible. However, when mechanized
15 assignment does not happen, the FAC will manually provision the
16 order” (NRC Study, page 15-FL 2, emphasis added).

17
18 As explained in the NRC Study, the Company’s provisioning activities are
19 largely dependent upon manual assignment for the majority of UNEs much like
20 the ordering functions.

21
22 **Q. Has GTE indicated what percentage of orders will fall-out and require**
23 **manual intervention?**

24 **A.** Yes. In a description of “Infrastructure Enhancements,” the Company states that
25 in the Mechanized Order mode a “small percent of orders fall-out of the system

1 and require a GTE service representative to notify the CLEC” (NRC Study, page
2 13-FL 2). It is revealing what GTE considers to be a small percent of fall-out
3 orders.

4
5 The Company assumes that “[A]pproximately 22% of the New Basic Exchange
6 UNE LSRs submitted electronically by the CLEC fall out of NOCV and require
7 a GTE Service Representative to manually input the order” (NRC Study, page
8 14-FL 2). In effect, GTE projects that its electronic ordering systems will be so
9 inefficient that more than one out of five orders will be kicked out and require
10 manual intervention. Such a high fall out rate is not representative of forward-
11 looking conditions and it is doubtful that GTE’s own customers would tolerate
12 such inefficiency.

13
14 **Q. Have you identified any other areas of the Company’s Non-Recurring Cost**
15 **Study that result in excessive nonrecurring costs?**

16 A. Yes. Although the procedures that a CLEC must undertake to establish an
17 account with GTE appear reasonable on their surface, they seem to consume an
18 inordinate amount of time for account set-up:

19
20 “CLEC Account Establishment – GTE establishes the CLEC
21 account in each state that the CLEC requests. The NOMC receives
22 the CLEC profile from the CLEC’s account manager, reviews it
23 for completeness, and then enters the CLEC profile information
24 and creates summary bill masters in NOCV. Once the CLEC
25

1 account has been established for a state, the CLEC may submit an
2 LSR for processing” (NRC Study, page 13-FL 6).

3
4 In order to conduct these account establishment procedures for one CLEC, GTE
5 estimates that it will take 462 minutes or nearly 8 hours to set-up the account
6 (NRC Study, page 14-FL 22). Furthermore, it is unclear from the cost study
7 documentation whether the CLEC Account Establishment charge will be
8 assessed by individual state in which the CLEC requests UNEs from GTE or on
9 a per carrier basis.

10
11 It should be kept in mind that while GTE is fully recovering its costs associated
12 with establishing the CLEC account, the CLEC must not only absorb these
13 charges but also the costs incurred in having its employees interact with GTE in
14 the account establishment process.

15
16 **Q. Have you identified any other shortcomings in the Company’s NRC Study?**

17 **A.** Yes. GTE asserts its UNE NRC Study is a “forward-looking study” (NRC
18 Study, page 13-FL 1). The pre-ordering activities for Dark Fiber, however, do
19 not appear representative of forward-looking practices as they rely upon
20 extensive manual effort. The preordering effort for Dark Fiber – Exchange
21 Facilities is projected to take 243.25 minutes or nearly 4 hours at a cost of
22 \$143.52. The preordering activities for Dark Fiber – Interoffice Facilities are
23 estimated to consume a total of 474.50 minutes or nearly 8 hours at a
24 nonrecurring charge of \$282.05. These may be the embedded pre-ordering
25 practices of GTE but they are not representative of a forward-looking cost study.

1
2 **Q. What other areas of the Company's NRC Study warrant further scrutiny by**
3 **the Commission?**

4 A. The Company intends to recover the one-time costs incurred for OSS system
5 upgrades through a "Transition Cost" charge. GTE has "identified two types of
6 costs associated with OSS – Transition Costs and Transaction-specific Costs.
7 Transition costs are the costs to upgrade existing OSS and the start-up costs to
8 establish mechanized systems. These infrastructure changes were required to
9 make GTE's OSS accessible to CLECs. The transition costs include the one-
10 time expenses to upgrade the five categories of OSS: pre-order, order,
11 provisioning, repair/maintenance, and billing" (NRC Study, page 13-FL 6). It
12 would be more appropriate to recover any OSS-related "Transition Costs"
13 through the Company's recurring rates for UNEs in order to avoid assessing
14 CLECs even higher nonrecurring rates.

15
16 **Q. Are there any other items you wish to comment upon with respect to the**
17 **Company's NRC Study?**

18 A. Yes. GTE will add an additional nonrecurring charge of \$5.53 to each Local
19 Service Request submitted by a CLEC. According to the Company, the purpose
20 of this extra charge is to recover the shared and fixed costs of the National Open
21 Market Centers:

22
23 "GTE's shared/fixed costs were developed based on the costs GTE
24 actually incurred, as described in GTE's NRC Study. GTE
25 proposes to recover these costs through an additional amount

1 included in the NRC assessed on every CLEC order. Specifically,
2 whenever a CLEC places an order or initiates an activity involving
3 GTE's NOMCs, the CLEC's 'ordering' NRC includes \$5.53 for
4 recovery of shared/fixed NOMC costs. This amount is based on an
5 estimate of how many times CLECs will use GTE's NOMCs in a
6 year" (Direct Testimony of Mr. Dennis Trimble, page 26, line 1).

7
8 The magnitude of the per order charge to recover NOMC related costs requires
9 that the Company provide full cost documentation in support of the charge. But
10 GTE has provided scant cost documentation in support of the NOMC
11 shared/fixed cost per order charge of \$5.53. Indeed, the only support that Mr.
12 Trimble provides is at such a high level (i.e. three line items of information) that
13 it cannot be determined whether the per order NOMC charge is reasonable. One
14 would expect the NOMC per order charge to be uniform across GTE's operating
15 subsidiaries in different jurisdictions since it is based upon an estimate of how
16 many times CLECs will use GTE's National Open Market Centers in a year. But
17 somehow GTE has estimated the NOMC per order charge to be \$5.53 in Florida
18 while the same per order cost recovery in North Carolina is estimated to be
19 \$4.76. Based upon the Company's premise for developing the NOMC per order
20 charge, the costs recovered on a per order basis from a CLEC should be the same
21 whether the CLEC is requesting UNEs in North Carolina or in Florida. The
22 Commission should order the Company to be more forthcoming concerning its
23 investment and operating costs associated with each of its NOMCs. At this
24 point, the Commission is not in a position to determine if such a per order charge
25 is even necessary much less reasonable.

1 **Q. Does this conclude your testimony?**

2 **A. Yes.**

3

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F

1 for certain unbundled network elements ("UNEs") that the Company has
2 proposed from its initial cost filing in this docket.
3

4 **Q. Please summarize your testimony.**

5 A. BellSouth submitted its original cost study in this proceeding on April 17, 2000.
6 The Company recently filed a revised cost study on August 16, 2000. In the most
7 recent cost filing, BellSouth has proposed rates for 26 unbundled network
8 elements that reflect increases in recurring and/or nonrecurring rates of 10% or
9 more from the original cost study. The substantial increases in nonrecurring rates
10 for many of the unbundled network elements are of particular concern. The
11 nonrecurring rates that BellSouth charges alternative local exchange carriers can
12 present formidable barriers to an ALEC's market entry depending upon their
13 magnitude – especially in relationship to the existing market rate and customer
14 churn for the service offering.
15

16 A comparison of the work activities and labor times underlying the nonrecurring
17 costs for individual UNEs was conducted between the April 17, 2000 cost study
18 and the August 16, 2000 cost filing. The results of the analysis indicate that
19 BellSouth has expanded the work activities and/or materially increased the labor
20 hours associated with a work activity for key unbundled network elements. One
21 would not anticipate such significant changes in work activities and/or labor
22 hours given that the Company relied upon studies less than six months apart. The
23 significant percentage increases in the labor hours underlying the higher
24 nonrecurring costs for several UNEs leads one to the conclusion that BellSouth is
25 becoming less proficient at provisioning UNEs than it was just six months ago.

1
2 A comprehensive examination of the studies that have led to the substantial
3 increases in the estimated nonrecurring costs should be undertaken. Absent the
4 results of such an examination, the nonrecurring rates for unbundled network
5 elements proposed by the Company in its April 17, 2000 cost study should be
6 used as the basis for any Commission-ordered adjustments and/or modifications
7 to BellSouth's proposed rates.

8
9 **Q. Why did BellSouth submit revised cost studies?**

10 A. According to BellSouth, several reasons led to the Company's decision to update
11 its cost studies. The revised studies reflect modifications to the BellSouth
12 Telecommunications, Inc. Loop Model ("BSTLM"). In addition, BellSouth
13 found it necessary to revise its nonrecurring provisioning process for Digital
14 Subscriber Line elements in order to be in conformance with the Federal
15 Communications Commission's ("the FCC") 319 rules concerning access to loop
16 qualification data. During its review of the Digital Subscriber Line provisioning
17 practices, BellSouth revisited all of the nonrecurring inputs for all types of loops
18 and, as a consequence, revised several inputs. Finally, the Company made certain
19 corrections to the original study for such items as material prices, the gross
20 receipts tax factor, and switching software model updates.

21
22 **Q. What is the impact of the revisions on the proposed UNE rates?**

23 A. The impact of the revisions on the proposed rates for most UNEs is negligible
24 with only slight percentage increases or decreases from the rates developed in the
25 original cost study. For a number of UNEs, however, there are substantial

1 changes in the proposed rates. Particularly troublesome is the magnitude of the
2 percentage increases in the nonrecurring charges for UNEs that ALECs are likely
3 to request in large volumes in their effort to become more competitive. A
4 summary of the recurring and nonrecurring rates for UNEs that have changed by
5 more than 10% from BellSouth's April 17, 2000 cost study is presented in Exhibit
6 No. __ (WJB-1).

7
8 **Q. Why is the level of nonrecurring costs important to the alternative local**
9 **exchange carriers?**

10 A. The nonrecurring rates for UNEs charged by BellSouth are a cost of doing
11 business to ALECs. The rates that the competitive carriers offer their retail
12 customers must recover the nonrecurring fees paid to BellSouth. BellSouth's
13 nonrecurring costs can present formidable barriers to an ALEC's market entry
14 depending upon their magnitude -- especially in relationship to the existing
15 market rate and customer churn for the service offering.

16
17 For instance, if an ALEC is assessed a \$350 nonrecurring charge for a UNE that
18 is necessary to provision a service with a monthly revenue stream of \$40, then the
19 ALEC must retain the customer for a period of nearly 9 months simply to recover
20 the nonrecurring fees paid to BellSouth. But, in actuality, the breakeven period
21 will be much longer as the ALEC will also be charged recurring costs by
22 BellSouth for the UNE in addition to the expenses it incurs for its internal
23 operations (e.g. sales and marketing, customer service, corporate overhead, etc.).
24 Higher than necessary nonrecurring charges lengthen the payback period and
25 increase the ALEC's business risk.

1
2 **Q. Why has the Company revised the proposed nonrecurring costs for UNEs**
3 **from its original cost filing?**

4 A. According to BellSouth's witness, Ms. Daonne Caldwell, the revisions to the
5 proposed nonrecurring rates reflect changes for a number of reasons, including
6 the dispatch rate, the extent of provisioning activities, and true-ups for certain
7 elements:

8
9 "All nonrecurring costs for non-loop elements decreased due to the
10 decrease in gross receipts tax. Nonrecurring costs associated with
11 service level ('SL') 1 and SL2 loops increased mainly as a result of
12 an increase in the dispatch rate. The sub-loop feeder has been
13 reclassified as a designed loop, which involves more provisioning
14 activities and thus increased nonrecurring costs. Other elements
15 that increased in cost include Cross Box Facility Set-up, Network
16 Interface Device ('NID') Cross Connect, and Integrated Services
17 Digital Network ('ISDN') loops. These increases resulted from a
18 truing-up of the inputs and provisioning processes" (August 18,
19 2000 prefiled testimony, page 6, lines 9 through 17).

20
21 **Q. Have you reviewed the revised rates for nonrecurring costs that the**
22 **Company has proposed in its most recent cost study?**

23 A. Yes. My review consisted of comparing the work activities and corresponding
24 labor times underlying the nonrecurring costs for UNEs that experienced a
25 percentage change of 10% or greater from BellSouth's original cost filing. The

1 work activities and associated labor times are major drivers of the Company's
2 nonrecurring cost estimates. My analysis particularly focused on the 2-wire
3 analog voice grade loops and sub-loop feeder unbundled network elements. In
4 the near term, the 2-wire analog voice grade loop is likely to be a highly requested
5 UNE by alternative carriers. As the market evolves and more infrastructure is
6 deployed, the ALECs may begin to submit a greater number of requests for sub-
7 loop UNEs.

8
9 **Q. How many unbundled network elements were changed by 10% or more due**
10 **to the Company's revisions to its original cost study?**

11 A. The recurring and/or nonrecurring rates for 26 UNEs were changed by 10% or
12 more as a result of the revisions to the Company's original cost study. Of this
13 group of 26 unbundled network elements, the revisions to 20 UNEs resulted in
14 changes in the nonrecurring costs. More importantly, the changes in the
15 estimated nonrecurring costs for 13 unbundled network elements represented rate
16 increases of 10% or more.

17
18 **Q. What were the results of your analysis of the 2-wire analog voice grade loop**
19 **and sub-loop elements?**

20 A. Revisions to the work activities and/or estimated labor hours from the Company's
21 original cost study produced significant increases in the estimated nonrecurring
22 costs for a 2-wire analog voice grade loop – Service Level 1 and 2 (i.e. UNE
23 codes A.1.1 and A.1.2, respectively). Both installation and disconnect rates for
24 these elements experienced sharp increases.

25

1 The UNE A.1.1 labor hours for first installation and additional installation
2 experienced an increase of 37.12% and 74.60%, respectively, from the
3 Company's original cost study. The initial disconnect and additional disconnect
4 labor hours rose 38.75% and 71.79%, respectively from the original cost study.

5
6 The percentage increase in the labor hours underlying the nonrecurring rates for a
7 2-wire analog voice grade loop – Service Level 2 (i.e. UNE code A.1.2) was more
8 dramatic than the increase in UNE A.1.1 labor hours. First installation and
9 additional installation labor hours for UNE A.1.2 increased 59.12% and 38.11%,
10 respectively, from the Company's original cost study. The initial disconnect and
11 additional disconnect labor hours rose 121.46% and 139.15%, respectively.

12
13 The Sub-Loop Feeder Per 2-Wire Analog Voice Grade Loop unbundled network
14 element (i.e. UNE code A.2.1) also experienced significant percentage increases
15 in installation and disconnect labor hours. First installation and additional
16 installation labor hours rose 50.79% and 139.06%, respectively, while additional
17 disconnect labor hours increased 39.06% from the original cost study. The Sub-
18 Loop Distribution Per 2-Wire Analog Voice Grade Loop additional installation
19 hours increased 13.82% from the Company's original cost study.

20
21 A comparison of the installation and disconnect labor hours between the
22 Company's original cost study and its revised cost study for UNEs A.1.1, A.1.2,
23 A.2.1, and A.2.2 is presented by Job Function Code ("JFC") in Exhibit
24 No. __ (WJB-2) through Exhibit No. __ (WJB-5).

25

1 **Q. What conclusions did you draw from the results of your analysis?**

2 A. The sharp increase in labor hours directed towards installation and disconnect
3 activities is surprising given the time estimates developed in the Company's
4 original cost study. The nonrecurring cost studies supporting the April 17, 2000
5 cost filing were conducted in March 2000 while the August 16, 2000 cost study
6 reflected the results of studies conducted in July 2000. One would not anticipate
7 such significant changes in work activities and/or labor hours in such a brief time
8 period. The significant percentage increases in the labor hours underlying the
9 higher nonrecurring costs for several UNEs leads one to the conclusion that
10 BellSouth is becoming less proficient at provisioning UNEs than it was just six
11 months ago.

12
13 **Q. What is your recommendation regarding the large percentage increases in
14 the nonrecurring rates for unbundled network elements proposed by
15 BellSouth?**

16 A. The Commission would benefit from a comprehensive examination of the studies
17 that have led to the substantial increases in the estimated nonrecurring costs.
18 Absent the results of such an examination, the nonrecurring rates for unbundled
19 network elements proposed in the Company's April 17, 2000 cost filing should be
20 used as the basis for any adjustments and/or modifications ordered by the
21 Commission.

22
23 **Q. Does this conclude your testimony?**

24 A. Yes.
25

1 MS. CALDWELL: Commissioner, we have already
2 done Witness Ford.

3 CHAIRMAN DEASON: Ford has already been done,
4 correct?

5 MS. CALDWELL: That is correct.

6 CHAIRMAN DEASON: I believe that Witness Barta
7 is the last witness, is that correct? Very well.

8 Staff, you indicated that there was an
9 outstanding matter about some information you requested
10 from BellSouth.

11 MS. CALDWELL: Yes, Commissioner. Staff would
12 request that BellSouth provide us with an errata sheet
13 relating to their testimony and exhibits for Phase 1. And
14 we would like to mark that to be provided as Exhibit 161.

15 CHAIRMAN DEASON: Exhibit 161. Now, this is to
16 be a late-filed exhibit?

17 MS. CALDWELL: Yes, sir.

18 CHAIRMAN DEASON: And can you describe for the
19 record what that exhibit will consist of.

20 MS. CALDWELL: BellSouth's errata sheet for
21 testimony and exhibits for Phase 1.

22 CHAIRMAN DEASON: Is BellSouth aware of what
23 staff is requesting, and is there any problem?

24 MR. EDENFIELD: We are aware, Chairman Deason,
25 and there is no problem.

1 (Exhibit Number 161 marked for identification.)

2 CHAIRMAN DEASON: Very good. Do we have an
3 anticipated filing date for Late-filed 161?

4 MS. CALDWELL: Commissioner, we have talked to
5 staff down here, and they believe by next Friday they
6 would be able to have that information to us.

7 CHAIRMAN DEASON: Any objection to having that
8 exhibit filed by -- one week from today?

9 MR. EDENFIELD: No, sir, I think that will be
10 fine. Ms. Caldwell is going to have to go through a lot
11 of information. And I think they are out of their hearing
12 today. They were in a hearing, which is my main concern
13 about committing to time. But I think they got finished
14 last night.

15 CHAIRMAN DEASON: Very well. Right now we will
16 schedule it for one week from today. If there is a
17 problem, just get with staff or the prehearing officer,
18 and I'm sure an accommodation can be made for good cause
19 shown.

20 MR. MELSON: Chairman Deason, could we ask for a
21 little more explanation from staff as to what the exhibit
22 is anticipated to be.

23 CHAIRMAN DEASON: Surely.

24 MS. CALDWELL: This is the same thing we have
25 asked of Verizon and of Sprint, it is the errata sheet

1 that when BellSouth filed its late-filed -- its
2 supplemental and revised cost studies, there was some
3 information in Phase 1 that it superseded. And this is
4 just to let us know so it clears up the record what is
5 being superseded. So I think it will be a benefit to all
6 the parties.

7 CHAIRMAN DEASON: Do you understand? No
8 problem?

9 MR. MELSON: No problem.

10 CHAIRMAN DEASON: Very good. Anything else to
11 come before the Commission?

12 MR. McGLOTHLIN: One thing, Chairman Deason. A
13 moment ago staff did inquire about the status of Doctor
14 Ford's testimony. And I am relying on my memory, my
15 memory is that when the occasion arose I asked to receive
16 a ruling that it be incorporated as though he were here
17 and read it. But if there is any confusion on that, and
18 in an abundance of caution, would you confirm that to the
19 extent there is any ambiguity on that situation that it is
20 to be inserted?

21 CHAIRMAN DEASON: We will certainly clarify
22 that. According to my record, that testimony was inserted
23 into the record. It was part of -- it was stipulated in.
24 And if it were not done, just to make sure, we will
25 include it into the record without objection. That

1 testimony, I think, is already part of the record. If it
2 is not, it shall be part of the order and there were no
3 objections to having that testimony in the record.

4 MR. MCGLOTHLIN: I appreciate that.

5 CHAIRMAN DEASON: Anything else? Hearing none
6 -- before we adjourn, just let me say one thing. We
7 labored through this hearing, we worked at it long and
8 hard. We worked into the evenings. We had, I think,
9 plenty of time scheduled, but we had an unanticipated
10 event, that being a tropical storm and the fact that it
11 was of such severity that state offices were closed on
12 that Friday, which was the date we were to conclude this
13 hearing.

14 I want to express my appreciation to all the
15 parties for working around that event. And I appreciate
16 the accommodations that were made to get this hearing
17 concluded today. I think there were some accommodations
18 made by BellSouth in particular, and I want to express my
19 appreciation to them for doing that.

20 I think that all the parties have labored hard
21 on this as well as staff, and it is our effort to bring
22 this matter to a conclusion. And I think we have a
23 schedule set out, and hopefully no other tropical storms
24 or anything will cause us to change that any further.

25 Anything else? Hearing none, this hearing is

1 adjourned thank you all.

2 MR. EDENFIELD: Thank you.

3 MR. SLOAN: Thank you, Mr. Chairman.

4 (The hearing concluded at 10:40 a.m.)

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STATE OF FLORIDA)

: CERTIFICATE OF REPORTER

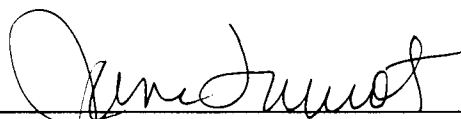
COUNTY OF LEON)

I, JANE FAUROT, RPR, Chief, FPSC Bureau of Reporting
FPSC Commission Reporter, do hereby certify that the
Hearing in Docket No. 990649-TP was heard by the Florida
Public Service Commission at the time and place herein
stated.

It is further certified that I stenographically
reported the said proceedings; that the same has been
transcribed under my direct supervision; and that this
transcript, consisting of 87 pages, Volume 20 constitutes
a true transcription of my notes of said proceedings and
the and the insertion of the prescribed prefilled testimony
of the witnesses.

I FURTHER CERTIFY that I am not a relative, employee,
attorney or counsel of any of the parties, nor am I a
relative or employee of any of the parties' attorney or
counsel connected with the action, nor am I financially
interested in the action.

DATED THIS 24TH DAY OF OCTOBER, 2000.



JANE FAUROT, RPR

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