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February 7, 1996

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Mrs. Blanca S. Bayo, Director Division of Records and Reporting Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

Re: Docket No. 950984-TP MFS/GTE & SPRINT

Dear Mrs. Bayo:

Enclosed for filing in the above referenced docket are an original and fifteen (15) copies of the Direct Testimony of Mike Guedel on behalf of AT&T.

Copies of the foregoing are being served on all parties of record in accordance with the attached Certificate of Service.

Yours truly,

Michael W. Tye

Attachments

cc: J. P. Spooner, Jr. Parties of Record

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ERSC-BUREAU OF RECORDS

DOCUMENT WARREN-DATE

01366 FEB-78

FPSC-RECORDS/REPORTING

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BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

IN RE: RESOLUTION OF PETITION(S)
TO ESTABLISH
NONDISCRIMINATORY RATES,
TERMS, AND CONDITIONS
FOR RESALE INVOLVING
LOCAL EXCHANGE
COMPANIES AND ALTERNATE
LOCAL EXCHANGE COMPANIES
PURSUANT TO SECTION
364.161, FLORIDA STATUTES

DOCKET NO. 950984-TP (MFS/GTE & SPRINT)

DIRECT TESTIMONY OF

MIKE GUEDEL

ON BEHALF OF AT&T COMMUNICATIONS
OF THE SOUTHERN STATES, INC.

FEBRUARY 7, 1996

DOCUMENT NUMBER-DATE

01366 FEB-78

FPSC-RECORDS/REPORTING

Q. WILL YOU PLEASE IDENTIFY YOURSELF?

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A. My name is Mike Guedel and my business address
is AT&T, 1200 Peachtree Street, NE, Atlanta,
Georgia, 30309. I am employed by AT&T as
Manager-Network Services Division.

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9 Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND
10 WORK EXPERIENCES.

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12 I received a Master of Business Administration Α, with a concentration in Finance from Kennesaw 13 14 State College, Marietta, GA in 1994. received a Bachelor of Science degree in 15 Business Administration from Miami University, 16 17 Oxford, Ohio. Over the past years, I have attended numerous industry schools and seminars 18 covering a variety of technical and regulatory 19 I joined the Rates and Economics 20 Department of South Central Bell in February of 21 1980. My initial assignments included cost 22 analysis of terminal equipment and special 23 In 1982, I began working assembly offerings. 24 on access charge design and development. 25

May of 1983 through September of 1983, as part 1 of an AT&T task force, I developed local 2 transport rates for the initial NECA interstate filing. Post divestiture, I remained with South Central Bell with specific responsibility 5 for cost analysis, design, and development 6 7 relating to switched access services and intraLATA toll. In June of 1985, I joined AT&T, assuming responsibility for cost analysis 9 of network services including access charge 10 impacts for the five South Central States 11 (Alabama, Kentucky, Louisiana, Mississippi, and 12 Tennessee). 13 14 15 PLEASE DESCRIBE YOUR CURRENT RESPONSIBILITIES. 16 17 My current responsibilities include directing 18 A. analytical support activities necessary for 19 intrastate communications service in Florida 20 and other southern states. This includes 21 detailed analysis of access charges and other 22 LEC filings to assess their impact on AT&T and 23

its customers. In this capacity, I have

represented AT&T through formal testimony

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| 1 | | before the Florida Public Service Commission, |
|----|----|---|
| 2 | | as well as regulatory commissions in the states |
| 3 | | of South Carolina and Georgia. |
| 4 | | |
| 5 | | |
| 6 | Q. | WHAT IS THE PURPOSE OF YOUR TESTIMONY? |
| 7 | | |
| 8 | A. | The purpose of my testimony is threefold: |
| 9 | | |
| 10 | | First, I will describe in a generic sense the |
| 11 | | concept of "unbundling" and its role in |
| 12 | | interconnection arrangements. |
| 13 | | |
| 14 | | Second, I will demonstrate why it is necessary |
| 15 | | for the incumbent local exchange companies |
| 16 | | (LECs) to unbundle their local networks. |
| 17 | | |
| 18 | | Third, I will recommend specific guidelines for |
| 19 | | the technical arrangement and pricing of the |
| 20 | | unbundled network elements. |
| 21 | | |
| 22 | | |
| 23 | Q. | WOULD YOU DESCRIBE WHAT YOU MEAN BY "UNBUNDLED" |
| 24 | | INTERCONNECTION ARRANGEMENTS? |
| | | |

| 1 | A. | Unbundling is the identification and |
|----|----|---|
| 2 | | disaggregation of useful components of the |
| 3 | | local exchange network into a set of elements, |
| 4 | | or Basic Network Functions (BNFs) which can be |
| 5 | | individually provided, costed, priced, and |
| 6 | | interconnected in such a manner as to provide |
| 7 | | other telecommunications service offerings. |
| 8 | | For example, local exchange service can be |
| 9 | | "unbundled" into loops, local switching, and |
| 10 | | transport. |
| 11 | | |
| 12 | | AT&T has identified 11 components or BNFs |
| 13 | | associated with local exchange services which |
| 14 | | may be effectively and usefully unbundled. |
| 15 | | These include: loop distribution, loop |
| 16 | | concentration, loop feeder, switching, operator |
| 17 | | systems, dedicated transport links, common |
| 18 | | transport links, tandem switching, signaling |
| 19 | | links, signal transfer points, and signal |
| 20 | | control points. |
| 21 | | |
| 22 | | Further, it must be noted that the list of BNFs |
| 23 | | described above must not be considered static |
| 24 | | or necessarily complete. Additional functional |

| _ | | etements may continue to be identified as |
|----|----|--|
| 2 | | telecommunications technology evolves. |
| 3 | | |
| 4 | | |
| 5 | Q. | WHAT GENERAL CRITERIA CAN BE USED TO DEFINE OR |
| 6 | | DETERMINE THE VIABILITY AND POTENTIAL |
| 7 | | USEFULNESS OF BNFs? |
| 8 | | |
| 9 | A. | Several criteria can be used in defining BNFs. |
| 10 | | First, the unbundled element must represent a |
| 11 | | discrete stand-alone logical component. |
| 12 | | Second, the unbundled element must be |
| 13 | | separately measurable and billable. Third, the |
| 14 | | unbundled elements must be associated with |
| 15 | | clearly identified interface standards. |
| 16 | | |
| 17 | | |
| 18 | Q. | WHY IS NETWORK UNBUNDLING ESSENTIAL TO THE |
| 19 | | POTENTIAL DEVELOPMENT OF LOCAL COMPETITION? |
| 20 | | |
| 21 | A. | The incumbent local exchange companies (like |
| 22 | | GTE and Sprint/United) currently hold a |
| 23 | | monopoly on the provision of local exchange |
| 24 | | service within their respective operating |
| 25 | | territories. While competition has developed |

with respect to interexchange services and some enhanced telecommunications services over the past 15 years, final access to the customer (the last mile) effectively remains the sole province of the incumbent LECs. Under the protection of local franchise, the LECs have spent hundreds of millions of dollars over the years constructing networks to reach every potential local exchange customer.

It is unlikely that a potential competitor would be willing or able to invest the capital required to duplicate this existing LEC network simply on the chance that it might attract some local service customers. Further, even if the financial resources were available, significant time would be required to obtain necessary "right of way" authorizations and to construct the duplicative network. With the requirement of building a new network, competition, if it developed at all, would develop slowly, and it would likely benefit only a very limited number of customers.

| 1 | | Unbundling will allow potential competitors to |
|----|----|--|
| 2 | | begin providing limited local service |
| 3 | | arrangements without incurring all of the |
| 4 | | expense of duplicating the LECs ubiquitous |
| 5 | | local network. A new entrant, for example, |
| 6 | | could begin providing service within a |
| 7 | | geographic area by installing local switching |
| 8 | | capability and purchasing unbundled loops (or |
| 9 | | links) from the incumbent LEC. This |
| 10 | | arrangement would have several advantages over |
| 11 | | the option of building all new facilities: 1) |
| 12 | | it would be far less capital intensive, 2) it |
| 13 | | would allow competition to develop much faster |
| 14 | | and 3) it would likely bring the benefits of |
| 15 | | competition to a much larger group of |
| 16 | | customers. |
| 17 | | |
| 18 | | |
| 19 | Q. | WILL THE UNBUNDLING OF THE INCUMBENT LEC |
| 20 | | FACILITIES/SERVICES ENSURE THAT COMPETITION |
| 21 | | WILL DEVELOP IN THE LOCAL EXCHANGE? |
| 22 | | |
| 23 | A. | No. At this time it is not clear as to whether |
| 24 | | or not the local exchange market will ever |
| 25 | | hecome effectively competitive. While. |

unbundling, if appropriately implemented, will 1 tend to mitigate one of the major barriers to 2 the development of local competition, it will 3 not in and of itself guarantee that competition will develop. 5 6 7 WHAT IS THE SCOPE OF THIS DOCKET WITH RESPECT 8 Q. TO UNBUNDLING? 9 10 At this point, AT&T believes that the scope of 11 Α. this docket will be limited to the same issues 12 identified in the MFS/BellSouth version of this 13 docket i.e., consideration of the unbundling of 14 local loops (or links), and the unbundling of 15 local switching functions including the 16 associated cross connect arrangements. 17 18 19 PLEASE DESCRIBE THE LOCAL LOOP FACILITY. 20 Q. 21 The local loop functions to connect an end user 22 A. 23 premises to the serving wire center of the local exchange company. The traditional local 24

loop facility can be divided into three

functional sub-elements: 1) local distribution,
which connects the end user premises to the
feeder distribution BNF or a concentrator
/multiplexor , 2) the concentrator/multiplexor
which connects the distribution BNF to the
feeder facility, and 3) the feeder facility
which completes the connection back to the
serving wire center or central office.

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Q. SHOULD EACH OF THE ABOVE DESCRIBED LOOP SUBELEMENTS BE INDIVIDUALLY PRICED AND PROVIDED BY THE INCUMBENT LEC?

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Each of the sub-elements must be offered 15 Α. Yes. and priced individually such that a potential 16 customer need only buy the functionality that 17 he/she desires. A customer should be permitted 18 to purchase any one, or two, or all three of 19 the sub-elements as required to provide loop 20 connectivity. (In practice, however, it is not 21 likely that the concentrator/multiplexor 22 function will be purchased without purchasing 23 one of the other sub-elements.) 24

Q. COULD YOU FURTHER DESCRIBE THE CONCENTRATOR/MULTIPLEXOR FUNCTION?

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Α. Yes. In a typical loop architecture, the LEC 4 would run a large cable or large capacity loop 5 facility (feeder cable) from a central office 6 to some point in the field (i.e., a remote 7 terminal). From the remote terminal, the LEC 8 could run several smaller cables (distribution 9 cable) in various directions to serve customers 10 situated around that particular location. 11 concentrator/multiplexor functions refer to the 12 interconnection arrangements that link the 13 distribution facilities with feeder facilities 14 at the remote terminal. Specifically, these 15 interconnection functions can include simple 16 cross connection arrangements, or more 17 complicated channelization and/or higher level 18 multiplexing functions (as in subscriber line 19 carrier or similar systems). 20

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23 Q. PLEASE DESCRIBE THE LOCAL SWITCHING FUNCTIONS?

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The primary function of the local switch is to 1 Α. create on demand temporary paths connecting 2 local loops to other local loops or local loops 3 to interoffice transport facilities. Typical switching functions include: 1) recognizing service requests, 2) obtaining call specific 6 information, 3) data analysis, 4) route 7 selection, 5) call completion, 6) testing and 8 9 recording, etc. Further, the local switching BNF must include access to unbundled Advanced 10 Intelligent Network (AIN) triggers. 11 triggers will offer a new entrant certain call 12 control capability within the LEC switch 13 allowing it to customize its end user offerings 14 without having to duplicate the LEC switch. 15

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Q. WOULD YOU DESCRIBE THE CROSS CONNECTION PUNCTION?

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21 A. Yes. The cross connect function completes the
22 connection between an unbundled loop and a LEC
23 switch, a new entrant switch, or a direct
24 transport facility. This function effectively
25 facilitates the unbundling process by allowing

a new entrant to purchase (and interconnect with) the particular pieces (and only those pieces) of the LEC network that it requires.

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6 Q. WHAT ARE THE APPROPRIATE TECHNICAL ARRANGEMENTS 7 FOR THE PROVISION OF SUCH UNBUNDLED ELEMENTS?

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The overarching guideline should be to provide Α. the unbundled elements in such a manner as to not inhibit the new entrant from providing the same quality of service as the incumbent LEC. That means that the technical arrangements used to connect the unbundled element(s) to a new entrant's network should be equal to those currently used to connect the element(s) within the LEC's own network. New entrants should have cooperatively engineered interconnection arrangements, equal service quality or performance parity, and the opportunity to interconnect at the same points or virtually the same points where practicable as the incumbent LEC.

| 1 | Q. | WHAT ARE THE APPROPRIATE FINANCIAL ARRANGEMENTS |
|----|----|---|
| 2 | | FOR SUCH UNBUNDLED ELEMENTS? |
| 3 | | |
| 4 | A. | The target price for the unbundled elements |
| 5 | | should be the Total Service Long Run |
| 6 | | Incremental cost (TSLRIC) that the LEC incurs |
| 7 | | in providing them. Pricing at the TSLRIC will |
| 8 | | simultaneously ensure that the incumbent LEC |
| 9 | | recovers all of the costs that it incurs in |
| 10 | | providing the unbundled element(s) (including |
| 11 | | cost of money), while it encourages the |
| 12 | | potential development of competition by |
| 13 | | offering the unbundled element(s) (at least |
| 14 | | from a price perspective) in a competitively |
| 15 | | neutral manner. |
| 16 | | |
| 17 | | |
| 18 | Q. | HOW WILL PRICING THE UNBUNDLED ELEMENTS AT |
| 19 | | TSLRIC PROMOTE A COMPETITIVELY NEUTRAL |
| 20 | | OFFERING? |
| 21 | | |
| 22 | | The actual cost that the LEC incurs in |
| 23 | | providing the unbundled element, either to |
| 24 | | itself or to a new entrant, is represented by |
| 25 | | the TSLRIC. The actual cost that a new entrant |

incurs is the price that it has to pay to the 1 LEC for the unbundled element. 2 3 Therefore, if the incumbent LEC offers the unbundled element(s) at TSLRIC, then both the incumbent LEC and the new entrant will incur 6 the same cost with respect to that unbundled 7 element(s). With prices set at TSLRIC, neither 8 9 the LEC nor the new entrant is disadvantaged. Thus the price is competitively neutral. 10 11 On the other hand, if the LEC's price is set 12 above its TSLRIC, then the new entrant's costs 13 (i.e., the price charged by the LEC) becomes 14 higher than the LEC's cost. Because retail 15 (end user) prices (of both the LEC and the new 16 entrant) must cover all of the costs incurred 17 in providing the respective services, pricing 18 unbundled elements in excess of TSLRIC would 19 provide the LEC with a competitive advantage in 20 the retail market. 21 22

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24 Q. WOULD YOU SUMMARIZE YOUR TESTIMONY?

Attempts to promote the development of Α. 1 local exchange competition serve the public 2 interest. Further, it must be recognized that 3 the general availability of facility based competition, while desirable, is not likely to develop in the near term. 6 7 Therefore, to encourage the development of 8 potential local competition, and to encourage 9 the breadth of competitive availability, the 10 Commission must order each incumbent LEC to 11 unbundle its services into the underlying BNFs. 12 13 The unbundled elements (BNFs) should be offered 14 to new entrants under the same basic 15 arrangements and with the same technical 16 capabilities as they are used by the incumbent 17 LEC in the provision of its services. 18 further encourage the potential development of 19 competition, the unbundled elements should be 20 priced at the TSLRIC incurred by each incumbent 21 LEC in providing each element. 22 23

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1 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

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3 A. Yes.

CERTIFICATE OF SERVICE

DOCKET NO. 950984-TP

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