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November 13, 1995



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. 950985A-TP

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 Communications of the Southern States, Inc.

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*  
Michael W. Tye

*Greer*

Attachments

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

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**CERTIFICATE OF SERVICE**

**DOCKET NO. 950985A-TP**

I HEREBY CERTIFY that a true copy of the foregoing has been furnished by next day express mail, U. S. Mail or hand-delivery to the following parties of record this 13<sup>th</sup> day of November, 1995.

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Michael W. Tye



1 **Q. WILL YOU PLEASE IDENTIFY YOURSELF?**

2

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

7

8

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

11

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

1           May of 1983 through September of 1983, as part  
2           of an AT&T task force, I developed local  
3           transport rates for the initial NECA interstate  
4           filing. Post divestiture, I remained with  
5           South Central Bell with specific responsibility  
6           for cost analysis, design, and development  
7           relating to switched access services and  
8           intraLATA toll. In June of 1985, I joined  
9           AT&T, assuming responsibility for cost analysis  
10          of network services including access charge  
11          impacts for the five South Central States  
12          (Alabama, Kentucky, Louisiana, Mississippi, and  
13          Tennessee).

14  
15  
16   **Q.   PLEASE DESCRIBE YOUR CURRENT RESPONSIBILITIES.**

17  
18   **A.   My current responsibilities include directing**  
19          **analytical support activities necessary for**  
20          **intrastate communications service in Florida**  
21          **and other southern states. This includes**  
22          **detailed analysis of access charges and other**  
23          **LEC filings to assess their impact on AT&T and**  
24          **its customers. In this capacity, I have**  
25          **represented AT&T through formal testimony**

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 twofold:**

9

10 First, I will describe in a generic sense the  
11 characteristics of interconnection and  
12 collocation arrangements that are necessary to  
13 provide inter-carrier connections that are both  
14 technically efficient and economically  
15 sensible, and thus competitively effective.

16

17 Second, I will specifically address the issue  
18 of mutual compensation associated with call  
19 completion as described in the petition and  
20 testimony of Continental Cablevision, Inc.,  
21 (Continental) and I will recommend a  
22 compensation arrangement that is consistent  
23 with the generic principles discussed above.

24

25

1 Q. WHAT IS MEANT BY THE TERM INTERCONNECTION?

2

3 A. Interconnection refers to the act of linking  
4 two networks together such that calls or  
5 messages that originate on one of the networks  
6 may transit or terminate on the other network.  
7 Traditionally, in the switched environment,  
8 interconnection has taken place on either the  
9 line-side or the trunk-side of a local exchange  
10 company's switch. Typical interconnection  
11 arrangements have included switched access,  
12 cellular interconnection, Enhanced Service  
13 Provider(ESP) interconnection, and the  
14 interconnection of end user Customer Provided  
15 Equipment (CPE) through local service  
16 arrangements.

17

18 In the implementation of local competition,  
19 these traditional types of interconnection will  
20 still be useful, but may not be sufficient to  
21 meet the all of the needs of all potential  
22 interconnectors. A more open or "unbundled"  
23 set of interconnection options and  
24 interconnection architectures will need to be  
25 made available.

1 Q. WOULD YOU DESCRIBE WHAT YOU MEAN BY "UNBUNDLED"  
2 INTERCONNECTION ARRANGEMENTS?

3  
4 A. Unbundling is the identification and  
5 disaggregation of useful components of the  
6 local exchange network into a set of elements,  
7 or Basic Network Functions (BNFs) which can be  
8 individually provided, costed, priced, and  
9 interconnected in such a manner as to provide  
10 other telecommunications service offerings.  
11 For example, local exchange service can be  
12 "unbundled" into loops, local switching, and  
13 transport.

14  
15 AT&T has identified 11 components or BNFs  
16 associated with local exchange services which  
17 may be effectively and usefully unbundled.  
18 These include: loop distribution, loop  
19 concentration, loop feeder, switching, operator  
20 systems, dedicated transport links, common  
21 transport links, tandem switching, signaling  
22 links, signal transfer points, and signal  
23 control points.

24

1 Further, it must be noted that the list of BNFs  
2 described above must not be considered static  
3 or necessarily complete. Additional functional  
4 elements may continue to be identified as  
5 telecommunications technology evolves.

6

7

8 **Q. WOULD YOU DESCRIBE WHAT YOU MEAN BY**  
9 **INTERCONNECTION ARCHITECTURES?**

10

11 **A.** The two basic architectures for implementing  
12 interconnection are physical and virtual  
13 collocation.

14

15 Physical collocation is an arrangement whereby  
16 an interconnector leases floor space (and  
17 access to floor space) within a LEC central  
18 office for purposes of installing, maintaining  
19 and managing telecommunications equipment used  
20 in the provision of the interconnector's  
21 service(s). Under this arrangement, the  
22 interconnector can gain entry to its designated  
23 space within the LEC central office (generally  
24 with security escort) to install, maintain,  
25 and/or repair its own equipment.

1           Virtual collocation is an arrangement whereby  
2           the local exchange company installs, maintains,  
3           and repairs the interconnector's designated  
4           telecommunications equipment. Under this  
5           arrangement, there is no segregated space  
6           rented by the interconnector. Rather, there  
7           would be equipment designated to the  
8           interconnector in the central office, but the  
9           actual location would be determined by the LEC.  
10          The interconnector could maintain monitoring  
11          and control ability, but would not be able to  
12          physically access the equipment within the  
13          central office.

14  
15  
16   **Q.    ARE THERE OTHER TYPES OF INTERCONNECTION**  
17   **ARRANGEMENTS?**

18  
19   **A.    Yes, there are other types of interconnection**  
20   **where the actual point of interconnection is**  
21   **not in a central office. These are generally**  
22   **called "mid-span meets." In a mid-span meet**  
23   **arrangement, each carrier builds and is**  
24   **responsible for operating trunk facilities out**  
25   **to some agreed upon point between central**

1 offices. Another way of thinking about this  
2 arrangement is that each carrier provides one  
3 half of the circuit. Under such an arrangement  
4 the carriers are jointly responsible for the  
5 traffic traversing the circuit.

6

7 In addition, there may be other interconnection  
8 arrangements that LECs have used or that may be  
9 useful to potential interconnectors.

10

11

12 **Q. WHAT ARE THE NECESSARY CHARACTERISTICS OF**  
13 **INTERCONNECTION NEEDED TO OFFER AN EFFECTIVE**  
14 **AND EFFICIENT WAY OF PROMOTING LOCAL EXCHANGE**  
15 **COMPETITION?**

16

17 **A. First, interconnection must be available at all**  
18 **technically and logically possible unbundled**  
19 **interfaces to the LEC network.**

20

21 **Second, interconnection must be made available**  
22 **to new carriers under the same rates, terms and**  
23 **conditions as apply to the LECs own service.**

24

1 Third, it is important that no restrictions be  
2 placed on interconnection standards and  
3 offerings that would limit these requirements  
4 to just the existing inventory of LEC network  
5 functions. In order for interconnection to  
6 encourage the growth of competition over time,  
7 it must apply to all new LEC network services  
8 as they are developed.

9  
10 Fourth, LECs must not be permitted to  
11 discriminate in any respect against new  
12 entrants. Any discrimination in the  
13 interconnection of new entrants to LEC network  
14 components vis-à-vis interconnection of the  
15 LEC's own services - be it in the form of  
16 delays in the offering of new arrangements,  
17 inferior provisioning, installation or  
18 maintenance of these arrangements, or  
19 uneconomic pricing of these arrangements, will  
20 thwart new competition.

21  
22 Furthermore, the compensation arrangements for  
23 interconnection must also allow for the maximum  
24 feasible development of local exchange  
25 competition. To do so, carrier compensation

1 arrangements should be nondiscriminatory and  
2 tariffed at rates that accurately reflect  
3 underlying costs.

4

5

6 **Q. HAS CONTINENTAL RAISED THESE GENERIC ISSUES OF**  
7 **UNBUNDLING AND INTERCONNECTION ARCHITECTURES IN**  
8 **ITS PETITION?**

9

10 **A. No.** Apparently Continental believes that it  
11 can achieve a mutually satisfactory agreement  
12 with BellSouth on most of these issues.

13

14 The purpose of this section of testimony,  
15 however, is to demonstrate the complexity of  
16 the issues surrounding interconnection and the  
17 need for incumbent LECs to make available an  
18 extensive variety of interconnection  
19 arrangements if the development of competition  
20 is to have any chance at all.

21

22 While it is imperative that BellSouth make  
23 available to all potential entrants the same  
24 interconnection arrangements that it is  
25 offering to Continental, it must be recognized

1           that these arrangements may not be sufficient.  
2           In other words, the Continental arrangement  
3           must not be considered the generic solution to  
4           interconnection.

5

6

7   **Q.   WHAT IS YOUR UNDERSTANDING OF THE RELIEF THAT**  
8   **CONTINENTAL IS SEEKING THROUGH ITS PETITION?**

9

10  **A.**   Continental is seeking relief from the proposed  
11  charges of BellSouth associated with call  
12  termination.  Call termination is the function  
13  of receiving a call from an interconnecting  
14  company at the terminating company's switch and  
15  delivering the call to an end user customer (a  
16  customer of the terminating company).

17

18           For example, assume that two companies are  
19           offering competitive local telephone service in  
20           a given geographic territory.  One company is  
21           the incumbent local exchange company (LEC) and  
22           the other is an alternative local exchange  
23           company (ALEC).  Further assume that these  
24           companies have established interconnecting  
25           facilities linking their respective switches.

1           When a customer of the ALEC places a call to a  
2           customer of the LEC, the call is transmitted  
3           over the interconnecting facility to the LEC  
4           switch. Likewise when a customer of the LEC  
5           places a call to a customer of the ALEC, the  
6           call can be transmitted over the same  
7           interconnecting facility to the ALEC switch.  
8           The function of call completion, in either  
9           case, includes the reception of the call at the  
10          terminating company switch and the delivery of  
11          the call to the end user customer.

12

13

14   **Q       WHY ARE THE CHARGES ASSOCIATED WITH THIS TYPE**  
15   **OF CALL COMPLETION REFERRED TO AS "MUTUAL**  
16   **COMPENSATION" ARRANGEMENTS?**

17

18   **A.**   If competition develops, each of the competing  
19          local service providers in a given territory  
20          will serve a certain number of customers. In  
21          order for each of these companies to offer  
22          ubiquitous local service to their respective  
23          customers, each will have to rely on the  
24          other(s) to complete calls, and each will  
25          expect some form of compensation for completing

1 other companies' calls. "Mutual Compensation"  
2 refers to this interdependent need for call  
3 completions.

4

5

6 **Q. WHAT ARE THE APPROPRIATE TERMS AND PRICES FOR**  
7 **MUTUAL COMPENSATION ARRANGEMENTS?**

8

9 A. Initially, the best solution may be the "bill  
10 and keep" arrangement. Under this arrangement  
11 no dollars change hands. The compensation that  
12 one company offers to another for the  
13 completion of its calls is the agreement to  
14 complete the other companies' calls in a like  
15 manner.

16

17 The beauty of this arrangement is its  
18 simplicity. There is no need for terminating  
19 companies to measure delivered traffic. There  
20 is no bill preparation or bill rendering  
21 involved, nor is there the need to review bills  
22 for accuracy. Further, this arrangement can be  
23 implemented without the development of cost  
24 studies that would be required to establish and  
25 justify specific prices.

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This arrangement could be implemented very quickly, and because the initial volumes of interconnected traffic will be very small, it should not burden any of the interconnecting companies.

**Q. IS "BILL AND KEEP" A VIABLE LONG RUN SOLUTION?**

**A.** It may be. If traffic deliveries are determined to be relatively balanced and the costs are similar among LECs and ALECs, then a bill and keep arrangement could work indefinitely.

However, if effective competition for local service does develop, and some of the complications of measuring and billing and costing are sorted out, then a more likely long term scenario would include actual billing at prices based upon the total service long run incremental cost incurred in providing call termination.

1           This latter method would more likely ensure  
2           that each company is accurately compensated for  
3           the particular services that it provides.

4

5

6   **Q.    IF THE COMMISSION DETERMINES THAT A RATE FOR**  
7           **CALL COMPLETION IS APPROPRIATE, AT WHAT LEVEL**  
8           **SHOULD THE COMMISSION SET THE RATE?**

9

10   **A.**    The rates charged for call termination should  
11           be set at the Total Service Long Run  
12           Incremental Cost (TSLRIC) that the LEC incurs  
13           in providing the service. No additional mark-  
14           up should be allowed. A LEC should be  
15           permitted to recover the costs that it incurs  
16           in providing call termination arrangements, but  
17           it should not be allowed to exact any  
18           additional mark-up from potential competitors  
19           simply for the right to do business in its  
20           territory.

21

22

23   **Q.    WHY IS IT NECESSARY TO ESTABLISH THE RATE AT**  
24           **COST?**

25

1 A. In the current environment, the incumbent LECs  
2 have an overwhelming market advantage. The  
3 incumbent LECs have essentially all of the  
4 existing customers in the local exchange  
5 telephone market.

6  
7 If alternative providers are to have a  
8 competitive chance, barriers to competition, if  
9 not completely eliminated, must be minimized.  
10 Barriers should not be enhanced by allowing the  
11 incumbent LECs to exact additional mark-up  
12 through the rates charged for providing call  
13 termination.

14  
15  
16 **Q. ARE CURRENT TERMINATING SWITCHED ACCESS CHARGES**  
17 **THE APPROPRIATE RATES FOR INTERCONNECTION**  
18 **COMPENSATION?**

19  
20  
21 A. No. In fact, current terminating switched  
22 access charges are not even appropriate for  
23 switched access. The rates are simply too  
24 high. Recognizing that the cost of providing  
25 switched access is less than 5 tenths of a cent

1 per access minute of use (more likely closer to  
2 3 tenths of a cent), current terminating rates  
3 include a mark-up above cost in excess of 850%  
4 - probably closer to 1500% or more.

5

6 By pricing interconnection services at these  
7 exorbitant levels, BellSouth could effectively  
8 foreclose local competition before it every has  
9 a chance to develop.

10

11

12 **Q. ARE THERE NOT ADVANTAGES TO PRICING LOCAL**  
13 **INTERCONNECTION AT THE SAME RATES AS SWITCHED**  
14 **ACCESS?**

15

16 **A.** Yes, there are advantages. Pricing these  
17 services at equal levels would greatly simplify  
18 the measuring, reporting and billing processes.  
19 Further, from an economic standpoint,  
20 recognizing that the cost of providing these  
21 respective services is essentially the same, it  
22 would make sense to price them the same.  
23 But the appropriate reconciliation is not to  
24 begin pricing local interconnection  
25 arrangements at the inflated prices of switched

1           access. Rather, local interconnection should  
2           be priced at the appropriate TSLRIC rate and  
3           switched access should be reduced to that  
4           level.

5

6

7   **Q.    DOES THIS CONCLUDE YOUR TESTIMONY?**

8

9   **A.    Yes.**

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