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September 15, 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. 950985-TP

Dear Mrs. Bayo:

Enclosed for filing in the above referenced docket are an original and fifteen (15) copies of AT&T's Direct Testimony of Mike Guedel.

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

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### BEFORE THE

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## FLORIDA PUBLIC SERVICE COMMISSION

IN RE: RESOLUTION OF PETITION(S) DOCKET NO. 950985 - TP TO ESTABLISH NONDISCIMINATORY RATES, TERMS, AND CONDITIONS FOR INTERCONNECTION IN-VOLVING LOCAL EXCHANGE COM-PANIES AND ALTERNATE LOCAL EXCHANGE COMPANIES PURSUANT TO SECTION 364.162, FLORIDA STATUTES

DIRECT TESTIMONY OF

MIKE GUEDEL

ON BEHALF OF AT&T COMMUNICATIONS

OF THE SOUTHERN STATES, INC.

SEPTEMBER 15, 1995

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1
    Q.
         WILL YOU PLEASE IDENTIFY YOURSELF?
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 3
    Α.
         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
         PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND
9
    0.
         WORK EXPERIENCES.
10
11
         I received a Master of Business Administration
12
    Α.
         with a concentration in Finance from Kennesaw
13
         State College, Marietta, GA in 1994. I
14
         received a Bachelor of Science degree in
15
         Business Administration from Miami University,
16
         Oxford, Ohio. Over the past years, I have
17
         attended numerous industry schools and seminars
18
         covering a variety of technical and regulatory
19
20
         issues. I joined the Rates and Economics
         Department of South Central Bell in February of
21
         1980. My initial assignments included cost
22
         analysis of terminal equipment and special
23
         assembly offerings. In 1982, I began working
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         on access charge design and development. From
25
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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 for cost analysis, design, and development 6 7 relating to switched access services and intraLATA toll. In June of 1985, I joined 8 9 AT&T, assuming responsibility for cost analysis 10 of network services including access charge 11 impacts for the five South Central States (Alabama, Kentucky, Louisiana, Mississippi, and 12 Tennessee). 13 14 15 PLEASE DESCRIBE YOUR CURRENT RESPONSIBILITIES. 16 Q. 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 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 Teleport Communications Group
21		(TCG), and I will recommend a compensation
22		arrangement that is consistent with the generic
23		principles discussed above.
24		

1 Q. WHAT IS MEANT BY THE TERM INTERCONNECTION? 2

Α. Interconnection refers to the act of linking 3 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, interconnection has taken place on either the 8 9 line-side or the trunk-side of a local exchange 10 company's switch. Typical interconnection arrangements have included switched access, 11 cellular interconnection, Enhanced Service 12 Provider(ESP) interconnection, and the 13 interconnection of end user Customer Provided 14 Equipment (CPE) through local service 15 arrangements. 16

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

2		
3	Q.	WOULD YOU DESCRIBE WHAT YOU MEAN BY "UNBUNDLED"
4		INTERCONNECTION ARRANGEMENTS?
5		
6	A.	Unbundling is the identification and
7		disaggregation of physical bottleneck
8		components of the local exchange network into a
9		set of "piece parts" which can be individually
10		provided, costed, priced, and interconnected in
11		such a manner as to provide other
12		telecommunications service offerings. For
13		example, local exchange service can be
14		"unbundled" into loops, local switching, and
15		transport.
16		
17		AT&T has identified 11 components or Basic
18		Network Functions (BNFs) associated with local
19		exchange services which may be effectively and
20		usefully unbundled. These include: loop
21		distribution, loop concentration, loop feeder,
22		switching, operator systems, dedicated
23		transport links, common transport links, tandem
24		switching, signaling links, signal transfer
25		points, and signal control points.

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1 2 Further, it must be noted that unbundling and identification of network components identified 3 here or in the future proceedings should not be 4 considered static. Specific unbundled elements 5 or "piece parts" will likely evolve along with б advances in technology by which local exchange 7 8 service is provisioned. 9 10 11 Q. WOULD YOU DESCRIBE WHAT YOU MEAN BY 12 INTERCONNECTION ARCHITECTURES? 13 The two basic architectures for implementing 14 A. interconnection are physical and virtual 15 collocation. 16 17 Physical collocation is an arrangement whereby 18 an interconnector leases floor space (and 19 20 access to floor space) within a LEC central office for purposes of installing, maintaining 21 and managing telecommunications equipment used 22 in the provision of the interconnector's 23 24 service(s). Under this arrangement, the 25 interconnector can gain entry to its designated

1 space within the LEC central office (generally 2 with security escort) to install, maintain, 3 and/or repair its own equipment. 4 Virtual collocation is an arrangement whereby 5 the local exchange company installs, maintains, 6 and repairs the interconnector's designated 7 8 telecommunications equipment. Under this arrangement, there is no segregated space 9 10 rented by the interconnector. Rather, there 11 would be equipment designated to the interconnector in the central office, but the 12 actual location would be determined by the LEC. 13 14 The interconnector could maintain monitoring and control ability, but would not be able to 15 physically access the equipment within the 16 central office. 17 18 19 ARE THERE OTHER TYPES OF INTERCONNECTION 20 Q. 21 **ARRANGEMENTS?** 

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A. Yes, there are other types of interconnection
where the actual point of interconnection is
not in a central office. These are generally

called "mid-span meets." In a mid-span meet 1 2 arrangement, each carrier builds and is responsible for operating trunk facilities out 3 to some agreed upon point between to central 4 5 offices. Another way of thinking about this arrangement is that each carrier provides one 6 half of the circuit. Under such and 7 8 arrangement the carriers are jointly 9 responsible for the traffic traversing the circuit. 10 11 In addition, there may be other interconnection 12 arrangements that LECs have used or that may be 13 useful to potential interconnectors. 14 15 16 WHAT ARE THE NECESSARY CHARACTERISTICS OF 17 Q. INTERCONNECTION NEEDED TO OFFER AN EFFECTIVE 18 AND EFFICIENT WAY OF PROMOTING LOCAL EXCHANGE 19 20 COMPETITION? 21 First, interconnection must be available at all 22 A. technically and logically possible unbundled 23 interfaces to the LEC network. 24

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

5 Third, it is important that no restrictions be 6 placed on interconnection standards and 7 offerings that would limit these requirements to just the existing inventory of LEC network 8 functions. In order for interconnection to 9 10 encourage the growth of competition over time, it must apply to all new LEC network services 11 as they are developed. 12

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Fourth, LECs must not be permitted to 14 discriminate in any respect against new 15 entrants. Any discrimination in the 16 interconnection of new entrants to LEC network 17 components vis-à-vis interconnection of the 18 LEC's own services - be it in the form of 19 delays in the offering of new arrangements, 20 inferior provisioning, installation or 21 22 maintenance of these arrangements, or 23 uneconomic pricing of these arrangements, will 24 thwart new competition.

25

1 Furthermore, the compensation arrangements for 2 interconnection must also allow for the maximum 3 feasible development of local exchange competition. To do so, carrier compensation 4 5 arrangements should be nondiscriminatory and 6 tariffed at rates that accurately reflect underlying costs. 7 8 9 10 Q. HAS TCG RAISED THESE GENERIC ISSUES OF UNBUNDLING AND INTERCONNECTION ARCHITECTURES IN 11 12 ITS PETITION? 13 Apparently TCG and BellSouth have reached No. 14 Α. 15 a mutually satisfactory agreement on most of 16 these issues. 17 The purpose of this section of testimony, 18 however, is to demonstrate the complexity of 19 the issues surrounding interconnection and the 20 need for incumbent LECs to make available an 21 22 extensive variety of interconnection arrangements if the development of competition 23 is to have any chance at all. 24 25

. . . .

While it is imperative that BellSouth make 1 2 available to all potential entrants the same 3 interconnection arrangements that it is offering to TCG, it must be recognized that 4 these arrangements may not be sufficient. 5 In 6 other words the TCG arrangement must not be considered the generic solution to 7 interconnection. 8 9 10 WHAT IS YOUR UNDERSTANDING OF THE RELIEF THAT 11 Q. 12 TCG IS SEEKING THROUGH ITS PETITION? 13 TCG is seeking relief from the proposed charges 14 Α. of BellSouth associated with call termination. 15 Call termination is the function of receiving a 16 call from an interconnecting company at the 17 18 terminating company's switch and delivering the call to an end user customer (a customer of the 19 20 terminating company). 21 For example, assume that two companies are 22 offering competitive local telephone service in 23 a given geographic territory. One company is 24 25 the incumbent local exchange company (LEC) and

1 the other is an alternative local exchange 2 company (ALEC). Further assume that these 3 companies have established interconnecting facilities linking their respective switches. 4 5 When a customer of the ALEC places a call to a customer of the LEC, the call is transmitted 6 7 over the interconnecting facility to the LEC 8 switch. Likewise when a customer of the LEC 9 places a call to a customer of the ALEC, the 10 call can be transmitted over the same 11 interconnecting facility to the ALEC switch. 12 The function of call completion, in either 13 case, includes the reception of the call at the 14 terminating company switch and the delivery of the call to the end user customer. 15 16 17

18QWHY ARE THE CHARGES ASSOCIATED WITH THIS TYPE19OF CALL COMPLETION REFERRED TO AS "MUTUAL20COMPENSATION" ARRANGEMENTS?

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A. If competition develops, each of the competing
local service providers in a given territory
will serve a certain number of customers. In
order for each of these companies to offer

ubiquitous local service to their respective
customers, each will have to rely on the
other(s) to complete calls, and each will
expect some form of compensation for completing
other companies' calls. "Mutual Compensation"
refers to this interdependent need for call
completions.

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# 10 Q. WHAT ARE THE APPROPRIATE TERMS AND PRICES FOR 11 MUTUAL COMPENSATION ARRANGEMENTS?

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

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The beauty of this arrangement is its simplicity. There is no need for terminating companies to measure delivered traffic. There is no bill preparation or bill rendering involved, nor is there the need to review bills

for accuracy. Further, this arrangement can be 1 2 implemented without the development of cost 3 studies that would be required to establish and justify specific prices. 4 5 6 This arrangement could be implemented very quickly, and because the initial volumes of 7 8 interconnected traffic will be very small, it 9 should not burden any of the interconnecting 10 companies. 11 12 IS "BILL AND KEEP" A VIABLE LONG RUN SOLUTION? 13 Q. 14 It may be. If traffic deliveries are 15 Α. determined to be relatively balanced and the 16 17 costs are similar among LECs and ALECs, then a 18 bill and keep arrangement could work 19 indefinitely. 20 21 However, if effective competition for local 22 service does develop, and some of the 23 complications of measuring and billing and 24 costing are sorted out, then a more likely long 25 term scenario would include actual billing at

1 prices based upon the total service long run 2 incremental cost incurred in providing call 3 termination. 4 5 This latter method would more likely ensure 6 that each company is accurately compensated for 7 the particular services that it provides. 8 9 IF THE COMMISSION DETERMINES THAT A RATE FOR 10 Q. 11 CALL COMPLETION IS APPROPRIATE, AT WHAT LEVEL 12 SHOULD THE COMMISSION SET THE RATE? 13 The rates charged for call termination should 14 A. 15 be set at the Total Service Long Run 16 Incremental Cost (TSLRIC) that the LEC incurs 17 in providing the service. No additional mark-18 up should be allowed. A LEC should be 19 permitted to recover the costs that it incurs 20 in providing call termination arrangements, but 21 it should not be allowed to exact any 22 additional mark-up from potential competitors simply for the right to do business in its 23 24 territory.

25

1 2 Q. WHY IS IT NECESSARY TO ESTABLISH THE RATE AT COST? 3 4 Α. In the current environment, the incumbent LECs 5 have an overwhelming market advantage. 6 The incumbent LECs have essentially all of the 7 existing customers in the local exchange 8 telephone market. 9 10 If alternative providers are to have a 11 competitive chance, barriers to competition, if 12 not completely eliminated, must be minimized. 13 Barriers should not be enhanced by allowing the 14 incumbent LECs to exact additional mark-up 15 through the rates charged for providing call 16 termination. 17 18 19 ARE CURRENT TERMINATING SWITCHED ACCESS CHARGES 20 Q. THE APPROPRIATE RATES FOR INTERCONNECTION 21 COMPENSATION? 22 23 24

In fact, current terminating switched 1 Α. No. 2 access charges are not even appropriate for switched access. The rates are simply too 3 4 high. Recognizing that the cost of providing 5 switched access is less than 5 tenths of a cent 6 per access minute of use (more likely closer to 3 tenths of a cent), current terminating rates 7 8 include a mark-up above cost in excess of 850% 9 - probably closer to 1500% or more. 10 11 By pricing interconnection services at these exorbitant levels, BellSouth could effectively 12 foreclose local competition before it ever has 13 a chance to develop. 14 15 16 ARE THERE NOT ADVANTAGES TO PRICING LOCAL 17 Q. INTERCONNECTION AT THE SAME RATES AS SWITCHED 18 ACCESS? 19 20 Yes, there are advantages. Pricing these 21 Α. services at equal levels would greatly simplify 22 the measuring, reporting and billing processes. 23 24 Further, from an economic standpoint, 25 recognizing that the cost of providing these

1		respective services is essentially the same, it
2		would make sense to price them the same.
3		
4		But the appropriate reconciliation is not to
5		begin pricing local interconnection
6		arrangements at the inflated prices of switched
7		access. Rather, local interconnection should
8		be priced at the appropriate TSLRIC rate and
9		switched access should be reduced to that
10		level.
11		
12		
13	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
14		
15	Α.	Yes.

### CERTIFICATE OF SERVICE

### DOCKET NO. 950985-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 <u>/Sth</u> day of <u>September</u>, 1995.

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