

Michael W. Tye Sr. Attorney

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January 5, 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. 950985-TP Sprint/United

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,

W. Tye Michael

Attachments

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

RECEIVED & FILED

EFSC BUREAU OF RECORDS

DOCUMENT NUMBER-DATE

#### 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  $\underline{SN}$  day of  $\underline{fmm}$ , 1996.

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Michael W. Ty

# BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

IN RE: RESOLUTION OF PETITION(S) TO ESTABLISH NONDISCRIMINATORY RATES, TERMS, AND CONDITIONS FOR INTERCONNECTION INVOLVING LOCAL EXCHANGE COMPANIES AND ALTERNATE LOCAL EXCHANGE COMPANIES PURSUANT TO SECTION 364.162, FLORIDA STATUTES

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DOCKET NO. 950985-TP TIME WARNER/UNITED

DIRECT TESTIMONY OF

MIKE GUEDEL

ON BEHALF OF AT&T COMMUNICATIONS

OF THE SOUTHERN STATES, INC.

JANUARY 5, 1995

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Q.

WILL YOU PLEASE IDENTIFY YOURSELF?

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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I received a Master of Business Administration Α. 12 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 I joined the Rates and Economics issues. 20 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 24 on access charge design and development. From 25

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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 З filing. Post divestiture, I remained with 4 South Central Bell with specific responsibility 5 for cost analysis, design, and development 6 relating to switched access services and 7 intraLATA toll. In June of 1985, I joined 8 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

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# 16 Q. PLEASE DESCRIBE YOUR CURRENT RESPONSIBILITIES.

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Α. My current responsibilities include directing 18 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 24 represented AT&T through formal testimony 25

before the Florida Public Service Commission, 1 as well as regulatory commissions in the states 2 of South Carolina and Georgia. 3 4 5 WHAT IS THE PURPOSE OF YOUR TESTIMONY? 6 ο. 7 The purpose of my testimony is twofold: Α. 8 9 First, I will describe in a generic sense the 10 characteristics of interconnection and 11 collocation arrangements that are necessary to 12 provide inter-carrier connections that are both 13 technically efficient and economically 14 sensible, and thus competitively effective. 15 16 Second, I will specifically address the issue 17 of mutual compensation associated with call 18 completion as described in the testimony of 19 Time Warner AxS of Florida, L.P. and Digital 20 Media Partners (collectively "Time Warner/DMP") 21 and I will recommend a compensation arrangement 22 that is consistent with the generic principles 23 discussed above. 24

25

2 <b>Q</b>	-	WHAT	IS	MEANT	BY	THE	TERM	INTERCONNECTION?
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Interconnection refers to the act of linking Α. 4 two networks together such that calls or 5 messages that originate on one of the networks 6 7 may transit or terminate on the other network. 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, these traditional types of interconnection will still be useful, but may not be sufficient to meet the all of the needs of all potential interconnectors. A more open or "unbundled" set of interconnection options and

interconnection architectures will need to be
 made available.

3

5 Q. WOULD YOU DESCRIBE WHAT YOU MEAN BY "UNBUNDLED" 6 INTERCONNECTION ARRANGEMENTS?

7

Unbundling is the identification and Α. 8 9 disaggregation of useful components of the local exchange network into a set of elements, 10 or Basic Network Functions (BNFs) which can be 11 individually provided, costed, priced, and 12 13 interconnected in such a manner as to provide other telecommunications service offerings. 14 For example, local exchange service can be 15 "unbundled" into loops, local switching, and 16 transport. 17

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AT&T has identified 11 components or BNFs
associated with local exchange services which
may be effectively and usefully unbundled.
These include: loop distribution, loop
concentration, loop feeder, switching, operator
systems, dedicated transport links, common
transport links, tandem switching, signaling

links, signal transfer points, and signal 1 control points. 2 3 Further, it must be noted that the list of BNFs 4 described above must not be considered static 5 or necessarily complete. Additional functional 6 elements may continue to be identified as 7 telecommunications technology evolves. 8 9 10 WOULD YOU DESCRIBE WHAT YOU MEAN BY Q. 11 INTERCONNECTION ARCHITECTURES? 12 13 The two basic architectures for implementing Α. 14 interconnection are physical and virtual 15 collocation. 16 17 Physical collocation is an arrangement whereby 18 an interconnector leases floor space (and 19 access to floor space) within a LEC central 20 office for purposes of installing, maintaining 21 22 and managing telecommunications equipment used in the provision of the interconnector's 23 service(s). Under this arrangement, the 24 interconnector can gain entry to its designated 25

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

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

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

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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.

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

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Fourth, LECs must not be permitted to 14 15 discriminate in any respect against new 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 uneconomic pricing of these arrangements, will 23 thwart new competition. 24

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Furthermore, the compensation arrangements for interconnection must also allow for the maximum feasible development of local exchange competition. To do so, carrier compensation arrangements should be nondiscriminatory and tariffed at rates that accurately reflect underlying costs.

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 Q.
 HAS TIME WARNER/DMP RAISED THESE GENERIC ISSUES

 11
 OF UNBUNDLING AND INTERCONNECTION ARCHITECTURES

 12
 IN ITS PETITION?

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Time Warner/DMP is seeking specific 14 Α. Yes. 15 interconnection arrangements which fall within 16 these generic guidelines. Presumably, the 17 requested arrangements will compliment Time 18 Warner/DMP's existing or anticipated network 19 and its business plan. It must be noted, 20 however, that other arrangements may be required by other ALECs that choose to organize 21 their businesses in a different manner. 22 23 The purpose of this initial section of 24

25 testimony is to demonstrate the complexity of

the issues surrounding interconnection and the 1 need for incumbent LECs to make available an 2 extensive variety of interconnection 3 arrangements if the development of competition 4 is to have any chance at all. 5 6 7 While it is imperative that Sprint/United make available to all potential entrants the same 8 interconnection arrangements that it is 9 10 offering to Time Warner/DMP, it must be recognized that these arrangements may not be 11 sufficient. In other words, the Time 12 13 Warner/DMP arrangement must not be considered the generic solution to interconnection. 14 15 16 TIME WARNER/DMP IS SEEKING SPECIFIC RELIEF FROM 17 Q. THE PROPOSED CHARGES OF SPRINT/UNITED 18 19 ASSOCIATED WITH CALL TERMINATION. WOULD YOU DEFINE CALL TERMINATION IN THE CONTEXT OF 20 ALEC/LEC LOCAL INTERCONNECTION? 21 22

A. Yes. Call termination is the function of
receiving a call from an interconnecting
company at the terminating company's switch and

delivering the call to an end user customer (a customer of the terminating company).

For example, assume that two companies are 4 5 offering competitive local telephone service in a given geographic territory. One company is 6 7 the incumbent local exchange company (LEC) and the other is an alternative local exchange 8 company (ALEC). Further assume that these 9 companies have established interconnecting 10 facilities linking their respective switches. 11 When a customer of the ALEC places a call to a 12 customer of the LEC, the call is transmitted 13 over the interconnecting facility to the LEC 14 Likewise when a customer of the LEC switch. 15 places a call to a customer of the ALEC, the 16 call can be transmitted over the same 17 interconnecting facility to the ALEC switch. 18 The function of call completion, in either 19 case, includes the reception of the call at the 20 terminating company switch and the delivery of 21 the call to the end user customer. 22

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1	Q	WHY ARE THE CHARGES ASSOCIATED WITH THIS TYPE
2		OF CALL COMPLETION REFERRED TO AS "MUTUAL
3		COMPENSATION" ARRANGEMENTS?
4		
5	A.	If competition develops, each of the competing
6		local service providers in a given territory
7		will serve a certain number of customers. In
8		order for each of these companies to offer

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

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# Q. WHAT ARE THE APPROPRIATE TERMS AND PRICES FOR 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.

3

The beauty of this arrangement is its 4 simplicity. There is no bill preparation or 5 6 bill rendering involved, nor is there the need to review bills for accuracy. Further, this 7 arrangement can be implemented without the 8 development of cost studies that would be 9 10 required to establish and justify specific prices. 11

12

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.

18

19

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

24 costs are similar among LECs and ALECs, then a

bill and keep arrangement could work
 indefinitely.

3

However, if effective competition for local 4 service does develop, and some of the 5 complications of billing and costing are sorted 6 out, then a more likely long term scenario 7 8 would include actual billing at prices based upon the total service long run incremental 9 10 cost incurred in providing call termination. 11 This latter method would more likely ensure 12 13 that each company is accurately compensated for the particular services that it provides. 14 15 16 IF THE COMMISSION DETERMINES THAT A RATE FOR 17 ο. CALL COMPLETION IS APPROPRIATE, AT WHAT LEVEL 18 SHOULD THE COMMISSION SET THE RATE? 19 20 The rates charged for call termination should 21 Α. be set at the Total Service Long Run 22 23 Incremental Cost (TSLRIC) that the LEC incurs in providing the service. No additional mark-24 up should be allowed. A LEC should be 25

permitted to recover the costs that it incurs 1 in providing call termination arrangements, but 2 it should not be allowed to exact any З additional mark-up from potential competitors 4 simply for the right to do business in its 5 6 territory. 7 8 WHY IS IT NECESSARY TO ESTABLISH THE RATE AT 9 Q. COST? 10 11 In the current environment, the incumbent LECs 12 Α. have an overwhelming market advantage. The 13 incumbent LECs have essentially all of the 14 existing customers in the local exchange 15 telephone market. 16 17 18 If alternative providers are to have a competitive chance, barriers to competition, if 19 not completely eliminated, must be minimized. 20 Barriers should not be enhanced by allowing the 21 incumbent LECs to exact additional mark-up 22 through the rates charged for providing call 23 termination. 24

1	Q.	ARE CURRENT SWITCHED ACCESS CHARGES THE
2		APPROPRIATE RATES FOR INTERCONNECTION
3		COMPENSATION?
4		
5	Α.	No. In fact, current switched access charges
6		are not even appropriate for switched access.
7		The rates are simply too high. Sprint/United
8		currently charges about 12 and one half cents
9		for two ends of access. Sprint/United has
10		previously testified before this Commission
11		that its cost of providing switched access is
12		in the range of 1 cent. Thus, current switched
13		access rates include a mark-up above cost in
14		the range of 1100%.
15		
16		By pricing interconnection services at these
17		exorbitant levels, Sprint/United could
18		effectively foreclose local competition before
19		it every has a chance to develop.
20		
21		
22	Q.	ARE THERE NOT ADVANTAGES TO PRICING LOCAL
23		INTERCONNECTION AT THE SAME RATES AS SWITCHED
24		ACCESS?

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1 Α. Yes, there are advantages. Pricing these services at equal levels would greatly simplify 2 the reporting and billing processes. Further, 3 from an economic standpoint, recognizing that 4 the cost of providing these respective services 5 is essentially the same, it would make sense to 6 price them the same. 7 8 But the appropriate reconciliation is not to 9 10 begin pricing local interconnection arrangements at the inflated prices of switched 11 access. Rather, local interconnection should 12 be priced at the appropriate TSLRIC rate and 13 switched access should be reduced to that 14 level. 15 16 17 DOES THIS CONCLUDE YOUR TESTIMONY? 18 Q. 19 Α. Yes. 20

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#### CERTIFICATE OF SERVICE

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