DOCUMENT NUMBER-DAT

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition by AT&T) Docket No. 960833-TP Communications of the Southern) Docket No. 960846-TP States, Inc., MCI Docket No. 960916-TP Telecommunications Corporation, MCI Metro Access Transmission Services, Inc., American Communications Services, Inc. and American Communications Services of Jacksonville, Inc. for arbitration of certain terms) and conditions of a proposed agreement with BellSouth Telecommunications, Inc. concerning interconnection and resale under the Telecommunications Act of 1996

FIRST DAY - LATE AFTERNOON SESSION

VOLUME 3

PAGES 269 through 465

PROCEEDINGS: HEARING

BEFORE: CHAIRMAN SUSAN F. CLARK

COMMISSIONER J. TERRY DEASON COMMISSIONER JULIA L. JOHNSON COMMISSIONER DIANE K. KIESLING

COMMISSIONER JOE GARCIA

DATE: Wednesday, October 9, 1996

PLACE: Betty Easley Conference Center

Room 148

BUREAU OF REPORTING 4075 Esplanade Way

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REPORTED BY: LISA GIROD JONES, RPR, RMR

APPEARANCES:

(As heretofore noted.)

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1	PROCEEDINGS
2	(Hearing reconvened at 3:45 p.m.)
3	(Transcript continues in sequence from
4	Volume 2.)
5	CHAIRMAN CLARK: Call the hearing back to
6	order. Mr. Tye.
7	MR. TYE: Thank you, Madam Chairman. AT&T
8	calls James L. Tamplin to the stand.
9	CHAIRMAN CLARK: Mr. Tamplin, have you been
10	sworn in?
11	WITNESS TAMPLIN: Yes, ma'am, I have.
12	JAMES L. TAMPLIN, JR.
13	was called as a witness on behalf of AT&T Communications
14	of the Southern States, and having been duly sworn,
15	testified as follows:
16	DIRECT EXAMINATION
17	BY MR. TYE:
18	Q Mr. Tamplin, would you please state your name
19	and business address for the record?
20	A Yes, sir. James A. Tamplin, Jr., 1200
21	Peachtree Street, Northeast, Atlanta, Georgia.
22	Q Mr. Tamplin, have you excuse me, by whom
23	are you employed and in what capacity?
24	A AT&T as a district manager.
25	Q Did you prepare and cause to be prefiled in

this docket direct testimony consisting of some 32 pages, supplemental testimony consisting of some 12 pages, and rebuttal testimony?

- A Yes, sir, I did.
- Q And were these questions and answers prepared by you or under your direction and supervision?
 - A Yes, sir, they were.
- Q Are there any changes, corrections or additions that you wish to make to your testimony at this time?
- A Yes, sir, I have two in my direct testimony.

 Page 26, Line 8, the first two words, "AT&T and" should

 be stricken. That paragraph should start off with

 "BellSouth."

Page 30, Line 14. And this is captured also in our Interrogatory Response No. 108. That line starting on Line 14 reads, "competition quickly, that BellSouth." Then should be inserted in there, "afford access to the poles, ducts, conduits, and rights of way to AT&T on rates, terms and conditions that are consistent with Section 224. During negotiation sessions, AT&T has suggested that BellSouth" and then the sentence reads as it's written there "be allowed." Those are the corrections, Mr. Tye.

MR. TYE: Madam Chairman, with those

corrections noted, I would ask that Mr. Tamplin's 1 direct, supplemental and rebuttal all be copied into the record as though given orally. 3 CHAIRMAN CLARK: Mr. Tamplin's direct, supplemental direct and rebuttal testimony will be 5 inserted in the record as though read, with the changes noted. 7 (By Mr. Tye) Mr. Tamplin, did you have two 8 Q 9 exhibits attached to your direct testimony? Yes, sir, I did. 10 Α Were those exhibits prepared by you or under 11 0 your direction and supervision? 12 13 Α Yes, sir, they were. Madam Chairman, I would ask that Mr. Tamplin's 14 15 exhibits be marked -- I believe it's Composite Exhibit 5. Excuse me, I think I missed an exhibit. 16 Perhaps -- 7, I'm sorry. 17 CHAIRMAN CLARK: Mr. Tye, so I'm clear, what 18 should that composite exhibit consist of? JAT-1, and 19 20 what else? JAT-1 and JAT-2 on his direct 21 MR. TYE: testimony, Madam Chairman. He also has an exhibit to 22 23 his rebuttal testimony which is, I believe, JAT --

CHAIRMAN CLARK: Let me ask you this: What is

excuse me, Exhibit JATR-1.

24

JAT-2? 1 MR. TYE: JAT-2 is a package of slides. 2 CHAIRMAN CLARK: Starting with this? 3 (Indicating) 4 That's correct. It's what we filed 5 MR. TYE: when we initially filed the testimony. We did not have the color slides. We filed the black and white copy. 7 You now have the color sides before you. And BellSouth has been provided with a set of the color slides also. 9 10 CHAIRMAN CLARK: I do have the color slides, but I don't have the pages numbered. Please, in the 12 future, remember to number the pages. MR. TYE: I'm sorry, Madam Chairman. 13 CHAIRMAN CLARK: JAT-1 and 2 will be marked as 14 15 Composites Exhibit 7. MR. TYE: Yes. 16 (By Mr. Tye) Now, Mr. Tamplin, you also have 17 Q an exhibit to your rebuttal testimony; is that correct? 19 Α Yes, sir. Was that exhibit prepared by you or under your 20 direction and supervision? Yes, sir, it was. 22 Α MR. TYE: Madam Chairman, I would ask that 23 Mr. Tamplin's rebuttal exhibit be marked as composite 24 25 Exhibit 8.

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CHAIRMAN CLARK: All right, and that is
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2
   JATR-1?
              MR. TYE: Yes, ma'am.
3
              (Exhibit Nos. 7 and 8 marked for
4
    identification.)
5
              (By Mr. Tye) Is that all your exhibits,
6
         Q
   Mr. Tamplin?
7
              Yes, sir.
8
              CHAIRMAN CLARK: That's going to be
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   Exhibit 8. Did you say that?
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              MR. TYE: Yes, Madam Chairman.
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1		DIRECT TESTIMONY OF
2		JAMES A. TAMPLIN, JR.
3		AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.
4		BEFORE THE
5		FLORIDA PUBLIC SERVICE COMMISSION
6		DOCKET NO. 960833-TP
7	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
8	A.	My name is James A. Tamplin, Jr. My business address is 1200 Peachtree Street,
9		NE, Atlanta, Georgia, 30309-3579.
10	Q.	PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL
11		BACKGROUND AND EXPERIENCE.
12	A.	I graduated from the United States Naval Academy with a degree of Bachelor of
13		Science in Engineering. I also have a Masters of Science Degree in Management
14		from the United States Naval Postgraduate School in Monterey, California and a
15		Masters of Science Degree in Information Technology from the George Washington
16		University in Washington, D.C. I began my career with AT&T Long Lines in 1979
17		as a Supervisor in the Corporate Communications organization. In this assignment, I
18		was responsible for the data and voice communications for the Southern Region
19		Network Operations Center, three Engineering and Administrative Data Acquisition
20		System Centers, and the 4ESS locations throughout the Southeastern United States. 1
21		became an Operations Supervisor responsible for all private line service, including
22		DDS and 800, within the state of Mississippi in 1980. In 1982, I joined the Interstate
23		Tariff group located in New Jersey and was involved in the planning of AT&T's
24		interstate tariffs for dedicated services. In 1983, I joined AT&T's Southern Region
25		Engineering Staff and functioned as the expert technical witness for all of the nine

Southeastern states in hearings before the various state public service commissions on AT&T's intrastate certification and on the equal access tariff. responsibility for the planning of AT&T's dedicated network in the fourteen Southern states in 1985. In this role, I became intimately involved in the network planning (facility and 5ESS switch) for the Department of Defense's Defense Commercial Telecommunications Network (DCTN), followed by the General Service Administration's Federal Telecommunications System (FTS2000). In 1988, I joined the project management group in AT&T's FTS2000 implementation group, and I eventually had responsibility for the eastern half of the United States, including Puerto Rico and the U.S. Virgin Islands. In the period 1990 to 1994, I transitioned through a number of jobs on the FTS2000 project, including responsibility for the facility and switch engineering of the entire network, establishing and managing the combined order receipt, engineering and provisioning work center, and finally establishing and managing the process engineering/management group for the project. In 1994, with the staffing of AT&T's organization to bid on the replacement contract for DCTN, I established the process and operations systems engineering/management group. In this capacity I became a member of AT&T's core team in developing its initial SONET backbone ring deployment plan. In January of 1996, I assumed my present responsibilities in Atlanta, Georgia.

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20 Q. PLEASE DESCRIBE YOUR CURRENT EMPLOYMENT AND THE SCOPE 21 OF YOUR RESPONSIBILITIES.

Currently, I am responsible for managing a group of AT&T technical specialists who are a part of AT&T's Local Infrastructure and Access Management organization.

Our primary function is to assist AT&T's Local Services Division by providing technical support, including the introduction of testimony in regulatory proceedings;

1		chairing industry workshops; and briefing/training individuals internal and external to
2		AT&T who are involved in regulatory, legislative, or judicial proceedings.
3	Q.	HAVE YOU TESTIFIED PREVIOUSLY BEFORE ANY STATE PUBLIC
4		SERVICE COMMISSIONS; AND, IF SO, BRIEFLY DESCRIBE THE
5		SUBJECT(S) OF YOUR TESTIMONY.
6	A.	I have testified before state commissions in Florida, Georgia, Alabama, Mississippi,
7		Louisiana, North Carolina, South Carolina, Tennessee, and Kentucky on the issue of
8		AT&T's certification for the provisioning of intraLATA/interLATA services and on
9		the issue of equal access tariffs in the 1983 to 1985 time period. I also have filed
0		testimony in at least one of these states on AT&T's ability to provide intraLATA
1		services under the FTS2000 contract.
12	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS
13		PROCEEDING?
14	A.	The purpose of my testimony is to describe the unbundled network elements that
15		AT&T has requested that BellSouth make available to AT&T, and which BellSouth,
16		·
		as incumbent local exchange carrier ("LEC"), must make available to satisfy the
17		as incumbent local exchange carrier ("LEC"), must make available to satisfy the requirements of the Federal Telecommunications Act of 1996 (the "Act").
18		
		requirements of the Federal Telecommunications Act of 1996 (the "Act").
18		requirements of the Federal Telecommunications Act of 1996 (the "Act"). Specifically, I will: (1) describe unbundling and its role under the Act; (2) identify the
1 8 19		requirements of the Federal Telecommunications Act of 1996 (the "Act"). Specifically, I will: (1) describe unbundling and its role under the Act; (2) identify the twelve elements of BellSouth's network which AT&T has requested be unbundled and
18 19 20		requirements of the Federal Telecommunications Act of 1996 (the "Act"). Specifically, I will: (1) describe unbundling and its role under the Act; (2) identify the twelve elements of BellSouth's network which AT&T has requested be unbundled and explain why AT&T needs the functionalities of these unbundled network elements in
18 19 20 21		requirements of the Federal Telecommunications Act of 1996 (the "Act"). Specifically, I will: (1) describe unbundling and its role under the Act; (2) identify the twelve elements of BellSouth's network which AT&T has requested be unbundled and explain why AT&T needs the functionalities of these unbundled network elements in order to be competitive in the provision of local services; (3) explain why AT&T

discuss why each is technically feasible and necessary to effectuate the Act's

procompetitive purpose.

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2 I. <u>INTRODUCTION</u>

3 Q. WHY DID AT&T REQUEST ARBITRATION ON UNBUNDLED

4 NETWORK ELEMENTS?

AT&T requested arbitration on unbundled network elements because BellSouth refuses to provide access to all of the unbundled network elements and combinations that AT&T requested in its proposed Interconnection Agreement. AT&T's proposed Interconnection Agreement is Attachment 4 to AT&T's Petition For Arbitration, filed July 17, 1996. BellSouth's position rests in large part on its belief that access to most of these network elements is not "technically feasible." As I explain in detail below, BellSouth's position is incorrect because it mistakes logistical and operational concerns for technical infeasibility. In addition, BellSouth will not permit AT&T to combine network elements in the manner required by AT&T to offer consumers choices in telephone services. This restriction not only is contrary to what the Act explicitly requires of BellSouth, but also, in many ways, would deny consumers the ability to choose AT&T. Lastly, BellSouth refuses to provide AT&T with several additional requirements AT&T needs to utilize these unbundled network elements. In summary, BellSouth's position will result in a scenario that is wholly insufficient and inadequate to meet the business needs for the provision of services AT&T seeks to offer. AT&T intends to buy unbundled network elements and to use those elements either alone, or together with services purchased for resale, or with AT&T's own facilities or with third party-owned facilities, to provide retail services in Florida. Were the Commission to adopt BellSouth's position on unbundled network elements, it would make it impossible for AT&T to compete fully in the local market, leaving consumers without the benefits Congress intended.

Q. WHAT DOES "UNBUNDLED NETWORK ELEMENT" MEAN?

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Under the Act, BellSouth is obligated "to provide, to any requesting A. telecommunications carrier for the provision of a telecommunications service, nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms and conditions that are just, reasonable and nondiscriminatory," 47 U.S.C. § 251(c)(3). This section further directs BellSouth to "provide such unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications service." Id. The Act defines a network element to be " a facility or equipment used in the provision of a telecommunications service," including the "features, functions, and capabilities that are provided by means of such facility or equipment, including subscriber numbers, databases, signaling systems, and information sufficient for billing and collection or used in the transmission, routing, or other provision of a telecommunications service." 47 U.S.C. § 153(29). An unbundled network element results from identifying and disaggregating the local exchange network into a set of elements or basic network functions, which can be individually provided, costed, priced, maintained, and combined in such a way as to provide service offerings. The unbundled network elements either can be physical facilities and/or features, functions, and capabilities provided by those facilities. Unbundled network elements are the piece parts of the network whose functionality is required to provide AT&T the network features and capabilities it needs to offer competitive services for the benefit of consumers.

- Q. WILL THE DESCRIPTION OF UNBUNDLED NETWORK ELEMENTS
 PROVIDED IN THIS TESTIMONY CHANGE OVER TIME?
- 25 A. Yes. While AT&T's present minimum set of network elements are described below,

1	unbundling is not a static concept. As local competition develops, specific carrier
2	needs, market developments, or advances in technology used to provide services will
3	create additional circumstances warranting further unbundling. Thus, AT&T's list of
4	unbundled network elements is not meant to be exhaustive, but instead should be
5	viewed as the "baseline" unbundling immediately required under the Act.
6	II. AT&T'S REQUESTS FOR UNBUNDLED NETWORK ELEMENTS
7	Q. WHAT ARE THE UNBUNDLED NETWORK ELEMENTS THAT AT&T
8	HAS REQUESTED FROM BELLSOUTH?
9	A. AT&T has requested that BellSouth make the following unbundled network elements
10	available under the terms of AT&T's Interconnection Agreement. Attached as
11	Exhibit JAT-1 to my testimony is a schematic depicting the local network. Attached
12	as Exhibit JAT-2 is a series of graphic representations of the twelve requested
13	unbundled network elements and the use of each in providing local services to
14	consumers. Today, these elements are available exclusively or almost exclusively
15	from BellSouth, and must be unbundled and made available for use by AT&T either
16	individually or in a combination with other elements:
17	1. Network Interface Device
18	2. Loop Distribution
19	3. Loop Concentrator/Multiplexer
20	4. Loop Feeder
21	5. Local Switching
22	6. Operator Systems
23	7. Dedicated Transport
24	8. Common Transport
25	9. Tandem Switching

1		10. Signaling Link Transport
2		11. Signal Transfer Points
3		12. Service Control Points/Databases
4	Q.	PLEASE DESCRIBE THE LOCAL LOOP FACILITY.
5	A.	The Local Loop Facility provides a transmission pathway between the subscriber's
6		residence or business and his or her local serving wire center. The Local Loop
7		Facility can be subdivided into four sub-loop network elements: (1) the Network
8		Interface Device, (2) Loop Distribution, (3) the Loop Concentrator/Multiplexer, and
9		(4) the Loop Feeder.
10		1. <u>NETWORK INTERFACE DEVICE</u>
11	Q.	PLEASE DEFINE THE NETWORK INTERFACE DEVICE AND ITS
12		FUNCTION.
13	A.	The Network Interface Device ("NID") is the physical location where facilities from
14		the customer's local service provider of choice connect to the inside wiring at the
15		customer's premises. The NID also provides a protective ground connection for the
16		Loop. For further description and the technical and interface requirements for the
17		NID, see AT&T's Interconnection Agreement, § 30.9.1.1, and Attachment 2, § 4.1.
18	Q.	PLEASE EXPLAIN THE NEED FOR UNBUNDLING THE NID.
19	A.	AT&T requires access to the NID to connect efficiently with the inside wiring at the
20		customer's premises. Without access to BellSouth's NID, AT&T and other new
21		entrants will not be able to make use of any existing spare terminals in BellSouth's
22		NID, or lift BellSouth's Loop Distribution wire within the NID in order to ground that
23		wire, thereby making terminals available for use by the new entrants. Without
24		unbundling the NID, AT&T and other new entrants that provide their own Loop
25		Distribution facilities would be required to install their own NID on the customer's

premises (including hanging a new box and fishing for the wires in the walls) each time the customer changed his or her local service provider. Access to the unbundled NID also is necessary to connect AT&T with the electrical grounding of the telecommunications interface to the customer's premises.

2. **LOOP DISTRIBUTION**

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Q. PLEASE DEFINE LOOP DISTRIBUTION AND ITS FUNCTION.

Loop Distribution is the network element that connects the customer to the local network by connecting the customer's NID to either the Feeder Distribution Interface or the Loop Concentrator/Multiplexer. The Feeder Distribution Interface is a device that terminates the Loop Distribution and the Loop Feeder, and cross-connects them in order to provide a continuous transmission path between the NID and a telephone plant that contains company central office. For loop Loop Concentrator/Multiplexer, the Loop Distribution may terminate at the Feeder Distribution Interface (if one exists), or at a termination and cross-connect field associated with the Loop Concentrator/Multiplexer. This termination and crossconnect field may be in the form of an outside plant distribution closure, remote terminal or fiber node, or an underground vault. The Loop Distribution may be copper twisted pair cable, coax cable, or single or multi-mode fiber optic cable. For further description and the technical and interface requirements for Loop Distribution, see AT&T's Interconnection Agreement, § 30.9.1, and Attachment 2, § 4.2.

21 Q. EXPLAIN THE NEED FOR UNBUNDLING LOOP DISTRIBUTION.

AT&T requires unbundling of Loop Distribution, for example, where AT&T deploys local fiber rings and its own switches, but does not own the facilities to span the "last mile" to the customer's premises. In this scenario, AT&T could use its fiber rings to transport traffic between its switch and BellSouth's Loop Distribution, in conjunction

with a Loop Concentrator/Multiplexer, to deliver traffic between AT&T's switch and the customer's premises. In addition, in some settings, particularly apartment developments and office buildings, the Loop Concentrator/Multiplexer is located in the building itself. Accordingly, use of BellSouth's Loop Concentrator/Multiplexer and Loop Distribution plant may be the most efficient way for AT&T to reach individual customers in these situations.

3. LOOP CONCENTRATOR/MULTIPLEXER

- Q. PLEASE DEFINE THE LOOP CONCENTRATOR/MULTIPLEXER AND
 ITS FUNCTION.
 - The Loop Concentrator/Multiplexer is the network element that provides several functions needed to assist in transmitting calls across the network. It converts analog signals coming in from customers to digital signals that are sent across the network. It also concentrates the traffic from the many lines coming in from end-users to fewer lines going out to the switch. Lastly, to accommodate large volumes of traffic using fewer facilities, the Loop Concentrator/Multiplexer intersperses the digital signals from calls into one high speed digital signal. For further description and the technical and interface requirements for the Loop Concentrator/Multiplexer, see AT&T's Interconnection Agreement, § 30.9.2, and Attachment 2, § 5.

19 Q. EXPLAIN THE NEED FOR UNBUNDLING THE LOOP

CONCENTRATOR/MULTIPLEXER.

A.

A.

AT&T needs access to BellSouth's unbundled Loop Concentrator/Multiplexer because it provides capabilities that are crucial to AT&T's ability to efficiently access its customers in various circumstances. In order to assure that carriers which need only the concentrator/multiplexer and feeder functionality (for example, where AT&T buys distribution from a cable television provider) do not pay for the loop distribution

functions. and also to assure that carriers which need only concentrator/multiplexer and loop distribution functions (for example, where AT&T uses its fiber rings to transport traffic between its switch and the customer) are not required to pay for the loop feeder functions, BellSouth should be required to unbundle the Loop Concentrator/Multiplexer element from each of the other loop elements. This will effectively permit AT&T to purchase only the specific functions required to provide local services to consumers.

4. **LOOP FEEDER**

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- 9 Q. PLEASE DEFINE THE LOOP FEEDER AND ITS FUNCTION.
- 10 A. The Loop Feeder connects the customer lines at the Feeder Distribution Interface or
 11 the Loop Concentrator/Multiplexer, if one is in place, with the local switch. For
 12 further description and the technical and interface requirements for the Loop Feeder,
 13 see AT&T's Interconnection Agreement, § 30.9.3, and Attachment 2, § 6.
- 14 Q. EXPLAIN THE NEED FOR UNBUNDLING THE LOOP FEEDER.
- A. AT&T needs unbundled access to the Loop Feeder to gain access to its customers in situations where it has deployed its own distribution plant or has purchased that functionality from another vendor, but will use BellSouth's Feeder capabilities (with or without BellSouth's Loop Concentrator/Multiplexer) to transport traffic to and from BellSouth's central office. This might occur, for example, where AT&T wires a new housing subdivision or corporate campus complex, but does not have its own switch or its own transmission facilities to that switch.

5. LOCAL SWITCHING

- 23 O. PLEASE DEFINE LOCAL SWITCHING AND ITS FUNCTION.
- A. Local Switching is the network element that provides many of the fundamental functionalities of the local network. Among other key functions, it provides the

customer with dialtone for each line; provides customer features such as call waiting and call forwarding; provides for the proper routing of a call; provides access to Advanced Intelligence Network ("AIN") triggers to customize call processing; and creates data necessary to compile a customer's bill. Local Switching also provides the functionality to connect the appropriate originating lines or trunks wired to a desired terminating line, platform, or trunk. Local Switching thus includes all of the features, functions, and capabilities that any BellSouth switch is capable of providing.

A.

In addition to this voice transmission capability, the Local Switching network element also provides a second capability — data switching. Data switching is used to terminate, concentrate, and switch data traffic from customer premises equipment in a digital format to its final destination. Access to the unbundled Local Switching network element includes the freedom for AT&T, as needed, to buy access to either of the two capabilities this element provides. For further description and the technical and interface requirements for Local Switching, see AT&T's Interconnection Agreement, § 30.9.4, and Attachment 2, § 7.

16 Q. EXPLAIN THE NEED FOR UNBUNDLING LOCAL SWITCHING.

Unbundled Local Switching is key to the efficient creation of new and improved services for consumers. Local Switching is the entity within the network that holds many of the functionalities that will allow AT&T to provide innovations to consumers and differentiate itself from its competitors. Therefore, AT&T needs the option either to buy this unbundled network element from BellSouth or, alternatively, to provide its own local switch element when building such a facility is the most efficient solution.

6. OPERATOR SYSTEMS

24 Q. PLEASE DEFINE OPERATOR SYSTEMS AND ITS FUNCTION.

25 A. Operator Systems provides operator and automated call handling and billing, special

services, customer telephone listings, and optional call completion services. Operator

Systems provides two types of capabilities: Operator Services and Directory

3 Services, each of which are described in detail below.

A.

Operator Services provides: (1) operator handling for call completion (for example, collect, third number billing, and manual credit card calls); (2) operator or automated assistance for billing after the customer has dialed the called number (for example, credit card calls); and (3) special services including, but not limited to, Busy Line Verification and Emergency Line Interrupt, Emergency Agency Call, Operator-assisted Directory Assistance, and Rate Quotes.

Directory Services includes storing and maintaining customer information and providing local customer telephone number listings with the option to complete the call at the caller's discretion. For further description and the technical and interface requirements for Operator Systems, see AT&T's Interconnection Agreement, § 30.9.5, and Attachment 2, § 8.

Q. EXPLAIN THE NEED FOR UNBUNDLING OPERATOR SYSTEMS.

Unbundled Operator Systems will benefit consumers by allowing AT&T to create new services (such as foreign language dependent services and innovations based on voice recognition capabilities) as well as by combining AT&T's world-class operator services platform with BellSouth's switches. In order for AT&T to attract customers, it must provide a full complement of local services, including services that rely upon Operator Systems. Many new entrants may not be able to duplicate the entire range of BellSouth's Operator Systems functionality and therefore would require the use of BellSouth's unbundled Operator Systems platforms. At the same time, some new entrants, such as AT&T, that have already invested or will choose to invest in Operator Systems should be permitted to maximize the value of such investments and

not be required to purchase the use of BellSouth's Operator Systems when using the unbundled BellSouth Local Switching element.

3 Q. PLEASE DESCRIBE THE TRANSPORT NETWORK ELEMENTS.

A.

A.

The next three network elements are Transport elements. Transport elements provide the functionality to connect, for example, an end office or Tandem Switch with another end office, Tandem Switch or a long distance carrier's Point of Presence. The end offices, Tandem Switches and Points of Presence may belong to the subscribing new entrant, other entrants, long distance carriers, and/or the incumbent LEC. This allows subscribers to reach each other even when they are not served out of the same switch or by the same carrier. There are three Transport network elements that must be made available on an unbundled basis -- Dedicated Transport, Common Transport, and Tandem Switching.

7. <u>DEDICATED TRANSPORT</u>

14 Q. PLEASE DEFINE DEDICATED TRANSPORT AND ITS FUNCTION.

Dedicated Transport is an interoffice transmission path between AT&T designated locations, such as BellSouth's central offices or other equipment locations, AT&T network components, other carrier network components, or customer premises. Dedicated Transport is used exclusively by a single carrier for the transmission of its traffic. For further description and the technical and interface requirements for Dedicated Transport, see AT&T's Interconnection Agreement, § 30.9.7, and Attachment 2, § 10.

8. COMMON TRANSPORT

Q. PLEASE DEFINE COMMON TRANSPORT AND ITS FUNCTION.

A. Common Transport is an interoffice transmission path that links together unbundled network elements and carries the traffic of more than one carrier. It provides this

path only for the duration of the connection. For further description and the technical and interface requirements for Common Transport, see AT&T's Interconnection Agreement, § 30.9.6, and Attachment 2, § 9.

9. TANDEM SWITCHING

A.

5 O. PLEASE DEFINE TANDEM SWITCHING AND ITS FUNCTION.

A. Tandem Switching is the network element that establishes a communications path between two switching offices through a third switching office (the Tandem Switch). This path lasts only for the duration of the connection. Tandem switching is used when it is either impractical or uneconomical to connect multiple end offices and/or Points of Presence directly to each other. For further description and the technical and interface requirements for Tandem Switching, see AT&T's Interconnection Agreement, § 30.9.11, and Attachment 2, § 14.

Q. EXPLAIN THE NEED FOR UNBUNDLING THE TRANSPORT NETWORK ELEMENTS.

Unbundling the three Transport network elements described above will benefit consumers by allowing AT&T and other new entrants to make economically efficient decisions concerning investment in network interconnections and facilities needed to exchange traffic with BellSouth, other local exchange carriers, and long distance carriers. AT&T and other new entrants may use the various Transport network elements to connect any two network components to one another, be they BellSouth's unbundled network elements, AT&T facilities, or third-party facilities. The choice AT&T will make between buying Dedicated Transport, on the one hand, and Common Transport and Tandem Switching on the other, will be driven by the relative cost of the options and the amount of traffic that will be carried.

25 Q. PLEASE DESCRIBE THE SIGNALING NETWORK ELEMENTS.

Signal System 7 ("SS7") signaling is used in the call set-up process to pass information on the routing and billing of calls within a carrier's network and between carriers. For example, signaling systems are used to provide validation and other information for calling card and other operator services calls, and to route 800 number calls to the correct carrier and end user. Signaling systems also enable carriers to efficiently create and provide AIN services which will add calling features and value to consumers. Network signaling is provided through the use of three network elements that should be made available on an unbundled basis -- Signaling Link Transport, Signal Transfer Points, and Service Control Points/Databases.

10. SIGNALING LINK TRANSPORT

A.

11 Q. PLEASE DEFINE SIGNALING LINK TRANSPORT AND ITS FUNCTION.

A Signaling Link is a set of dedicated transmission paths which carry signaling messages between carriers' switches and signaling networks. For further description and the technical and interface requirements for Signaling Link Transport, see AT&T's Interconnection Agreement, § 30.9.8.1, and Attachment 2, § 11.

11. SIGNAL TRANSFER POINTS

- 17 Q. PLEASE DEFINE SIGNAL TRANSFER POINTS AND THEIR FUNCTION.
- A. Signal Transfer Points are signaling message switches that interconnect Signaling
 Links to route signaling messages between switches and databases. For further
 description and the technical and interface requirements for Signal Transfer Points,
 see AT&T's Interconnection Agreement, § 30.9.9, and Attachment 2, § 12.

22 12. SERVICE CONTROL POINTS/DATABASES

- Q. PLEASE DEFINE SERVICE CONTROL POINTS/DATABASES AND THEIR FUNCTION.
- 25 A. Databases are the network elements that provide the functionality for storage of, and

access to, information required to offer a particular basic telecommunications service and/or capability. A Service Control Point (SCP) is a specific type of database that contains customer and/or carrier-specific routing, billing, or service instructions to be acted on by carriers' switches and operator systems. The SCP executes the services application logic in response to SS7 queries sent to it by a local switch. SCPs also provide operational interfaces to allow for provisioning, administration, and maintenance of subscriber data and service application data (e.g., an 800 database stores customer record data that provides information necessary to route 800 calls). For further description and the technical and interface requirements for Service Control Points/Databases, see AT&T's Interconnection Agreement, § 30.9.10, and Attachment 2, § 13.

12 Q. EXPLAIN THE NEED FOR UNBUNDLING NETWORK SIGNALING.

A.

SS7 signaling is critical in the provision of modern telecommunications services because it enables different providers' networks to set up calls to one another, thereby allowing a customer on one provider's network to communicate with a customer on another provider's network. Unbundling the Signaling network elements will allow AT&T to provide signaling capabilities using combinations of BellSouth's, AT&T's, and potentially, third-party owned signaling elements to support AT&T's end user's originating and terminating traffic and advanced features. The unbundled Signaling network elements are particularly important to consumers in the competitive local services market because they permit efficient interconnection and calling between networks without Post Dial Delay and will enable AT&T to introduce innovative, competitive services with shorter development and delivery time.

AT&T must be able to determine how it will obtain its signaling network. Because of the high costs of deploying, maintaining and interconnecting a signaling network,

Ţ		AT&I requires the option to purchase these elements, either alone or in combination,
2		from BellSouth or from other suppliers.
3		III. <u>USE OF UNBUNDLED NETWORK ELEMENTS</u>
4	Q.	SHOULD THERE BE ANY RESTRICTIONS ON AT&T'S ABILITY TO
5		COMBINE BELLSOUTH'S UNBUNDLED NETWORK ELEMENTS IN
6		AT&T'S PROVISION OF LOCAL SERVICES?
7	A.	No. BellSouth must not be allowed to place any restrictions on AT&T's use of
8		BellSouth's unbundled network elements, either alone, in combinations, or in
9		conjunction with services purchased for resale or with AT&T's or a third-party's
10		facilities. The Act mandates that BellSouth "shall provide such unbundled network
11		elements in a manner that allows requesting carriers to combine such elements in
12		order to provide such telecommunications service." 47 U.S.C. § 251(c)(3).
13		Consistent with the Act, AT&T must have the greatest possible flexibility in using
14		BellSouth's unbundled network elements to address the features, functions, and
15		services needs of its customers. This is so for several reasons.
16		First, AT&T must have the ability to provide a former BellSouth customer with the
17		same services that customer received from BellSouth, if the customer so chooses.
18		The most efficient way to accomplish this may be for AT&T to combine the
19		functionality of several of BellSouth's unbundled network elements to provide such
20		services.
21		Second, AT&T must be able to purchase and combine BellSouth's unbundled
22		network elements to foster innovation in the provision of services to consumers. By
23		combining functionalities of these elements, AT&T may be able to create new and
24		improved services that BellSouth was unable or unwilling to provide to its customers.
25		Third, AT&T must be able to purchase individual unbundled network elements and/or

1		combinations of elements to supplement its own network with the network
2		functionality AT&T cannot yet provide economically itself or through a third party.
3		The purchase of the functionality of these unbundled network elements will allow
4		AT&T to compete in a given market without the expenditure needed to duplicate
5		BellSouth's network capabilities.
6		Lastly, restrictions on AT&T's ability to combine BellSouth's unbundled network
7		elements are unnecessary because existing industry standards will be utilized in
8		combining these elements. Thus, there are no technical impediments to combinations
9		of technically feasible elements.
10	Q.	PLEASE PROVIDE SOME EXAMPLES OF COMBINATIONS OF
11		BELLSOUTH'S UNBUNDLED NETWORK ELEMENTS AT&T MAY
12		CHOOSE TO UTILIZE.
13	A.	One example of a combination of unbundled network elements AT&T may utilize to
14		bring the benefits of competition to consumers is the Loop/Switching combination,
15		sometimes called the "platform." The Loop/Switching combination is made up of the
16		four sub-loop elements (the Network Interface Device, Loop Distribution, the Loop
17		Concentrator/Multiplexer, and the Loop Feeder), the Local Switching element, and
18		selected Signaling and Transport elements. AT&T will order this combination of
19		contiguous network elements on an individual line/customer basis. AT&T must have
20		the option to purchase or not purchase BellSouth's Operator Systems network element
21		as warranted.
22		For existing BellSouth customers who simply want AT&T as their local service
23		provider, the Loop/Switching combination will allow the change without requiring
24		any physical change in the existing BellSouth network infrastructure. In addition, use
25		of the Loop/Switching combination will not require AT&T to collocate any

1 equipment in BellSouth's central office.

A second example of a combination of unbundled network elements AT&T may choose to purchase from BellSouth is the combination of the four sub-loop elements (a "contiguous loop"). This combination will allow AT&T to reach the customer's premises when, for example, AT&T is providing its own switch, transport, and signaling. Another combination that AT&T may need to purchase would include the NID, Transport, and Signaling elements. This combination would be needed where AT&T provides its own loop and switch.

IV. ISSUES IN DISPUTE

- 10 Q. PLEASE DESCRIBE THE DISPUTE BETWEEN AT&T AND BELLSOUTH

 11 REGARDING AT&T'S ACCESS TO BELLSOUTH'S UNBUNDLED

 12 NETWORK ELEMENTS.
- 13 A. BellSouth's position is that the Act does not require BellSouth to provide AT&T with

 14 access to all twelve network elements requested by AT&T, either alone or in

 15 combinations, or with the additional requirements AT&T needs to utilize those

 16 elements. BellSouth's principal objection is that it is not "technically feasible" to

 17 unbundle all of the network elements requested by AT&T.
 - The fallacy in BellSouth's position lies in its definition of technical feasibility, which appears to be that providing access to unbundled network elements is technically feasible only when BellSouth can provide such access without doing anything. Thus, in BellSouth's view, the need for BellSouth to make any logistical, procedural, or operational adjustment to its routine practices in order to provide AT&T access to an unbundled network element renders that access technically infeasible.
- 24 Q. WHAT IS THE CORRECT DEFINITION OF TECHNICAL FEASIBILITY?
- 25 A. In my opinion, the definition suggested by the Federal Communications Commission

in its recent Notice of Proposed Rulemaking ("NPRM") is correct: "interconnection
at a particular point will be considered technically feasible [under the Act] if an
incumbent LEC currently provides, or has provided in the past, interconnection to any
other carrier at that point " NPRM, para. 57. Thus, historical precedent is a key
factor in defining technical feasibility, and where BellSouth has previously unbundled
a particular network element or provided a specific point of interconnection to any
other carrier, the technical feasibility of that action has been established. In addition,
the technical experience of one incumbent LEC should demonstrate technical
feasibility for another incumbent LEC with similar equipment. Thus, for many of the
elements requested by AT&T, corroboration of technical feasibility exists in the fact
that BellSouth currently provides these elements under tariff.
Where neither BellSouth nor another incumbent LEC provides or has provided an
element, technical feasibility is properly defined by reference to existing technical
standards that define each element and specify how they interconnect with each other.
The existence of these standards published by Bellcore, ANSI, and other authorities,
and their uniform acceptance by the industry, are evidence that the elements are, or
can be, separately provisioned and operated. Thus, these standards constitute one
level of proof that the unbundling requested by AT&T is technically feasible. I will
address below the technical feasibility of each network element to which BellSouth
objects.
HOW DID AT&T ADDRESS TECHNICAL FEASIBILITY IN SELECTING
THE UNBUNDLED NETWORK ELEMENTS IT REQUESTED FROM
BELLSOUTH?
Aside from being the basic building blocks required to provide customers with a local
network, AT&T recognized the need to develop a list of unbundled network elements

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1		that would meet the test of technical feasibility, and be uniform across networks and
2		consistent with existing network architectures. Accordingly, AT&T used the
3		following requirements to identify the network elements:
4		1. Each network element must be measurable and billable or have the
5		potential to be measurable and billable.
6		2. Each network element must utilize transmission or switching protocol
7		and physical interconnection standards, either existing or under
8		development, that are recommended by an acknowledged industry body.
9		3. Each network element must have the potential to be provisioned by a
0		competitive service provider that is, they represent discrete, stand-alone
1		physical or logical elements.
2		4. Each network element must have the potential to be ordered in
3		combination with any other network elements to facilitate the
4		development of a competitive service offering.
5	Q.	WHICH UNBUNDLED NETWORK ELEMENTS DOES BELLSOUTH
6		REFUSE TO PROVIDE TO AT&T?
7	A.	The following are the elements, capabilities, or combinations of elements BellSouth
8		refuses to provide to AT&T, along with BellSouth's reasons for its refusal, and
9		AT&T's position with respect to each:
20		1. <u>Loop/Switching Combination</u> : BellSouth refuses to allow AT&T to
21		purchase the Loop/Switching combination not because of any alleged technical
22		infeasibility, but because BellSouth claims that such a combination would be an
23		impermissible substitution for local service that BellSouth is making available to
24		AT&T via resale. BellSouth's position is without basis. Just as AT&T has the right
25		under the Act to purchase wholesale services from BellSouth, it has the separate and

distinct right to purchase combinations of BellSouth's network elements. The Act clearly provides for a range of opportunities for local market entry -- including both resale and network element combinations -- that can be used by a variety of firms, consistent with their respective business strategies and available resources.

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2. Local Loop Facility: BellSouth claims that it is not technically feasible to provide AT&T access to the four sub-loop unbundled network elements. Unbundling each of these network elements is technically feasible. The technical specifications for establishing interconnection with the sub-loop network elements are documented in various existing industry technical publications. See AT&T's Interconnection Agreement, Attachment 2, § 4.1.3. As I discussed above, BellSouth's position is based upon its mistaking of logistical, operational, and procedural concerns for technical infeasibility. Thus, AT&T believes that unbundling the NID is technically feasible and has offered a solution to overcome BellSouth's concerns about grounding, which are procedural rather than technical in nature. The solution would allow AT&T to make use of any existing spare terminals in BellSouth's NID, or, if none exist, it would allow AT&T to lift BellSouth's Loop Distribution wire within the NID in order to ground that wire. With respect to Loop Distribution and the Loop Concentrator/Multiplexer, BellSouth similarly claims that unbundling each of these network elements is not technically feasible until such time as operations systems enhancements are accomplished that would eliminate the requirement for manual "workarounds." AT&T believes that it is technically feasible to unbundle both Loop Distribution and the Loop Concentrator/Multiplexer for the reasons cited in the NID discussion above, and that such enhancements and workarounds are not relevant to establishing technical feasibility under the Act. In addition, BellSouth claims that even if these operational and procedural issues concerning the Loop Concentrator/Multiplexer did not exist, it would not be technically feasible to provide AT&T access to this unbundled network element when Integrated Digital Loop Carriers ("IDLCs") are utilized in BellSouth's facilities.

AT&T has proposed several solutions that will overcome BellSouth's concern in this

situation as well. First, when a universal Digital Loop Carrier System precedes deployment of the IDLC, BellSouth would make the Loop Concentrator/Multiplexer element available via the universal system. Second, where new IDLCs are deployed that support Virtual Remote Terminal ("VRT") capability, AT&T's needs can be met by these systems. The VRT capability allows a portion of the IDLC to be set up in a universal mode and thereby meet AT&T's needs. Lastly, where sufficient demand for this element exists and AT&T and BellSouth equipment is compatible, AT&T would consider purchasing an entire IDLC's Loop Concentrator/Multiplexer functionality. BellSouth has offered limited agreement to only the second proposal. AT&T is seeking full agreement to all feasible proposals to make this element as widely available as possible. Otherwise, AT&T may be unable to provide service in some multi-customer residential and business settings.

At the time AT&T filed its Petition for Arbitration, BellSouth did not agree that access to the Loop Feeder is technically feasible. It now appears that BellSouth does agree with AT&T's position. However, although BellSouth has agreed that it can provide AT&T with access to the Loop Feeder, BellSouth's position is that AT&T's must pay special access tariffs to gain such access. AT&T believes that this pricing of an unbundled network element is not proper under the Act. For a complete discussion of this issue, see the testimony of AT&T witness Ellison.

3. Contiguous Loop: Not only has BellSouth refused to provide AT&T

access to the individual unbundled sub-loop network elements, but again, relying on an incorrect definition of technical feasibility, BellSouth also will not offer AT&T access to the entire unbundled Local Loop Facility (i.e., a contiguous combination of

4 all four sub-loop elements) when IDLCs, which are prevalent in many local networks,

are utilized in BellSouth's facilities.

AT&T must have the ability to serve all of BellSouth's current customers, not just those served by facilities other than IDLCs. AT&T has proposed four alternative solutions that will make this possible. First, where copper loop facilities remain in place after deployment of an IDLC, BellSouth would provide AT&T with contiguous loops via these facilities. Second, where a universal Digital Loop Carrier system preceded deployment of the IDLC, BellSouth would make the contiguous loops available via the universal system. Third, where new IDLCs are deployed that support VRT capability, AT&T's needs for contiguous loops can be met by these systems. The VRT capability allows a portion of the IDLC to be set up in a universal mode and thereby meet AT&T's needs. Fourth, where sufficient demand for this element exists and AT&T's and BellSouth's equipment is compatible, AT&T would consider purchasing an entire IDLC's complement of contiguous loops. BellSouth has offered limited agreement to only the first and third proposals. AT&T is seeking full agreement to all feasible proposals to make contiguous loops as widely available as possible, with as few limitations on their service-providing capabilities as possible.

4. <u>Local Switching</u>: BellSouth claims that unbundling this network element is not technically feasible unless it also includes access to BellSouth's operator services, directory assistance, repair service, and inter-office common transport (BellSouth's "port" offering). Local Switching is an unbundled element and is independent of the other unbundled network elements BellSouth claims must be

appended to it. For example, the Act explicitly requires that local switching be unbundled from transport. 47 U.S.C. § 271(c)(2)(B)(vi). BellSouth's position would preclude AT&T from meeting its customer's needs by preventing AT&T from combining AT&T's own operator systems and transport facilities with the functionality of BellSouth's Local Switching element. Moreover, BellSouth's position is not only overinclusive (forcing AT&T to buy from BellSouth more than it needs to provide its customers with local service), it is also underinclusive. That is, under BellSouth's "port" offering, AT&T, in addition to purchasing the "port," would also have to purchase from BellSouth as "services" defined by BellSouth, on an "a la carte" basis, other features and capabilities contained in BellSouth's local switch which AT&T requires to serve its customers. These features and capabilities are provided by software that is resident in BellSouth's local switch and thus, are a part of the functionality of the switch. This is contrary to the Act, which includes "features, functions, and capabilities" in the definition of a network element. 47 U.S.C. § 153(29). Unbundling Local Switching would involve nothing more than requiring BellSouth to provision AT&T's end user customers on BellSouth's switch, based on a service order received from AT&T that includes all the customer specific information needed by BellSouth to provision the customer. Unbundling Local Switching does not require any partitioning of the switch for each new entrant; it simply requires BellSouth to provision the switch in the same manner it does today, except that the service order will come from AT&T's service center. BellSouth also claims that unbundling Local Switching is not technically feasible because its switches are not capable of routing calls to AT&T operator systems, transport facilities, and other AT&T-provided facilities. BellSouth has claimed that

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such routing is precluded by the lack of indicators in its switches which direct the switch as to how to route certain types of calls for individual customers and carriers. Thus, an AT&T customer dialing zero, when served via the BellSouth Local Switching element, would be sent to BellSouth's Operator System rather than to AT&T's. Setting the indicator for that customer, known as a Line Class Code, to route this dial zero traffic to AT&T would use another of a finite number of such codes within the BellSouth switch.

AT&T and BellSouth studies indicate the presence of many unused Line Class Codes in most of BellSouth's switches today. BellSouth claims these would be exhausted if only a few new entrants utilize BellSouth's Local Switching element and require the same Line Class Code structure as BellSouth. This last assumption of equality of Line Class Code usage is the fallacy in BellSouth's argument of technical infeasibility. AT&T will not require the same set of Line Class Codes that BellSouth utilizes today in the provision of BellSouth's retail services. Thus, Line Class Codes are conserved and BellSouth can provide the necessary customized routing to multiple competing local exchange carriers on most of BellSouth's switches.

For the long term, AT&T has proposed that the software of local switches be updated to provide an enlarged capacity for such carrier-specific routing. Informal discussions with switching system manufacturers indicate this capacity expansion could be available in about two years. This two-fold approach of short-term conservation, combined with longer term expansion, is reminiscent of the industry's response to the requirement to provide equal access compliance on switching systems and is just as feasible.

5. <u>Operator Systems</u>: BellSouth claims that Operator Systems is not a network element that BellSouth is required to unbundle under the Act. BellSouth also

claims that unbundling Operator Systems is not technically feasible because BellSouth is not capable of routing an AT&T's customer's call from the BellSouth switch to AT&T's operator services platform. Contrary to BellSouth's belief. Operator and Directory Assistance Services each is a "capability" under the Act. Network elements consist of "features, functions, and capabilities . . . used in the transmission, routing or other provision of a telecommunications service." 47 U.S.C. § 153(29) (emphasis added). Without question, the BellSouth Operator System is such a network element. Additionally, as discussed above, there is no technical reason why routing of traffic to AT&T's operator services platform cannot be unbundled. The fact that BellSouth and other incumbent LECs provide unbundled operator services to other carriers today demonstrates that it is technically feasible to unbundle Operator Systems. For example, the Woodbury Telephone Company (an independent telephone company) and TCG (a competitive access provider) both purchase Operator Services from Southern New England Telephone ("SNET"), and SNET has agreed to provide such services to AT&T. These services also are provided to local exchange carriers under contract with long distance carriers such as AT&T and MCI. Finally, most incumbent LECs provide directory assistance to independent local telephone companies and long distance carriers. Interfaces with the incumbent LEC's Operator Systems can be obtained merely by purchasing interconnecting trunks and setting up routing. In addition, the FCC has required in CC Docket No. 91-115 that various types of information which support LEC Operator Services functions must be made available to long distance carriers. Thus, there should be no technical difficulty in making BellSouth's Operator Systems available on an unbundled basis to new entrants. AT&T has proposed development of

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a solution to the routing issue described above under Local Switching.

- 6. <u>Common Transport</u>: BellSouth claims that Common Transport is not an unbundled network element and that the functionality is available to AT&T as part of BellSouth's "port" offering. As previously discussed, AT&T believes that Common Transport must be a separate unbundled element to allow AT&T flexibility in its provisioning of services to customers. BellSouth also claims that, even if Common Transport is an unbundled element, unbundling this network element is not technically feasible because of the same routing issue related to Local Switching. As discussed above, AT&T has proposed a solution to the routing issue.
- 7. <u>Dedicated Transport</u>: BellSouth claims that unbundling Dedicated Transport is not technically feasible when utilized in conjunction with BellSouth switching because of the same routing issue related to Local Switching. Again, as discussed above, AT&T has proposed a solution to the routing issue.
- 8. Advanced Intelligent Network: BellSouth refuses to unbundle access to its AIN in such a way that AT&T can achieve parity in the creation and offering of AIN based services. AIN will allow AT&T to offer consumers a variety of innovative, competitive advanced features and services independent of BellSouth. See AT&T's Interconnection Agreement, Attachment 2, § 12.2.10. For example, AIN triggers would enable a carrier to offer "voice recognition," a service that allows a customer to dial a call by speaking the name of the party the customer wishes to call. AT&T's access to BellSouth's AIN triggers will provide AT&T with call control capability within the BellSouth switch that would allow AT&T to customize offerings without having to duplicate BellSouth's network. Such access is critical to AT&T's ability to provide competing services to its customers now and in the future.

 Specifically, in the near term, BellSouth proposes to provide AT&T with access to

BellSouth's service creation environment, which is a tariffed service. In the long run, BellSouth also proposes to provide AT&T access to BellSouth's AIN via a "gateway" or mediation device when AT&T has its own service creation environment. The use of such a device will directly affect consumers by increasing Post Dial Delay (the amount of time a caller must wait after entering the last digit of the destination telephone number before hearing a valid audible network response) by an estimated 20% over that of a similar BellSouth AIN call. The gateway solution will also increase the time and cost of implementing services to the customer, and will add additional points of potential failure to the network required to provide services. AT&T believes that the existing SS7 network can maintain network integrity, eliminating the need for the gateway device. Given the experience with providing network interconnect for 800 Portability, the industry is capable of establishing necessary testing and certification procedures to ensure that both network performance and reliability are not compromised by interconnection of multiple service providers' SS7 networks.

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V. ADDITIONAL REQUIREMENTS

Q. IS THE FUNCTIONALITY OF THE BELLSOUTH'S UNBUNDLED NETWORK ELEMENTS ALL THAT AT&T REQUIRES TO COMPETE IN THE LOCAL MARKET?

No. The unbundling of BellSouth's network elements, and allowing AT&T to combine the functionality of these elements in any manner necessary to meet customer needs, will expedite robust competition in the marketplace. Without it, the barriers to entry are too substantial to ever envision competition thriving anytime in the near future. However, the unbundling of network elements, while necessary to the development of local competition, is not by itself sufficient to ensure the development

1		of a competitive local market that will benefit consumers. There are a variety of
2		additional requirements and capabilities that BellSouth must provide AT&T. See
3		AT&T's Interconnection Agreement, Attachment 2, § 15.
4	Q.	ARE ANY OF THESE ADDITIONAL REQUIREMENTS IN DISPUTE?
5	A.	Yes. The following are those that BellSouth refuses to provide to AT&T:
6		1. Access To Rights Of Way, Conduits, and Pole Attachments: AT&T
7		is entitled to access to rights of way, conduits, pole attachments, and any other
8		pathways on terms and conditions equal to that provided by BellSouth to itself or any
9		other party. Further, BellSouth should not preclude or delay allocation of these
10		facilities to AT&T because of potential needs of itself or other parties. See
11		Interconnection Agreement, § 32.4, and Attachment 3, § 3.
12		BellSouth's position is that it is entitled to reserve in advance five year's worth of
13 14	afford chartare co	capacity for itself. Rather, the Act requires, 47 U.S.C. § 251(b)(4), in order to foster excess to the poles, ducts, conduits, and rights of way to AT+T on rates, terms and conditions consistent with Section 224. Our ing negotiations fait T has Suggested that Bull50 u H1 competition quickly, that BellSouth be allowed to reserve in advance no more than
15		one year's capacity, plus maintenance spares, on any given route consisting of outside
16		plant facilities, and that BellSouth should accord AT&T this same right.
17		Additionally, AT&T has requested copies of pole and conduit engineering records to
18		facilitate planning the access to these facilities. BellSouth has refused to provide such
19		copies. Together, these two areas of dispute significantly restrict and impede AT&T's
20		access to these facilities and are inconsistent with the Act.
21		2. <u>Local Number Portability</u> : The Act requires BellSouth to provide
22		Local Number Portability so that customers who wish to switch their local service to
23		AT&T can retain their existing telephone numbers. See 47 U.S.C. § 251(b)(2).
24		AT&T has requested that BellSouth coordinate number changes associated with

interim Local Number Portability so that customers are not out of service more than

five minutes. See AT&T's Interconnection Agreement, Attachment 8, § 2. BellSouth has not agreed to provide coordination that would meet this performance level. The result is that customers changing to AT&T, while retaining their existing phone number, may be out of service for many hours, depending on when BellSouth executes its activities associated with this change request. In addition, AT&T has requested a wider range of options for implementing interim Local Number Portability than those to which BellSouth has agreed. These additional options will permit interim portability to be deployed more efficiently and enable AT&T to better meet its customers' requirements.

- Two-Way Trunk Interconnection: AT&T has requested the ability to interconnect its local network with that of BellSouth using both one-way and two-way trunk groups. See AT&T's Interconnection Agreement, § 36.1.2. AT&T has requested that these trunks ultimately carry intraLATA, interLATA, and local traffic. These requests improve the efficiency of interconnection by commingling traffic terminating on either BellSouth's or AT&T's network on larger, more efficient trunk groups between the two networks. BellSouth has indicated it will accept intraLATA and local traffic from AT&T on one trunk group and interLATA traffic from AT&T on another trunk group. AT&T seeks an order that BellSouth work to fulfill AT&T's request to allow all AT&T traffic to be combined on one trunk group by a date certain.
- 4. <u>Unused Transmission Media</u>: AT&T has requested that BellSouth lease to AT&T BellSouth's unused transmission media. <u>See</u> AT&T's Interconnection Agreement, Attachment 3, § 4. BellSouth has refused. AT&T needs the ability to lease this media to facilitate its ability to efficiently build its own network transmission facilities. Without the ability to lease this media, AT&T faces yet

1 another capital investment barrier to developing its own network.

2 VI. <u>CONCLUSION</u>

3 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

AT&T is asking this Commission for a decision that will approve AT&T's requests for access to BellSouth's unbundled network elements and combinations of elements, including the additional requirements necessary for efficient use of these elements, as described in this testimony and enumerated in AT&T's proposed Interconnection Agreement with BellSouth. Access to the unbundled network elements and combinations of elements that AT&T has requested is technically feasible. BellSouth's refusal to provide AT&T access is based on an incorrect application of the concept of technical feasibility and on policy positions that conflict with the proconsumer purposes of the Act. AT&T's Interconnection Agreement sets forth a business arrangement between AT&T and BellSouth, tailored to AT&T's individual needs, that will provide such access, and thereby make it possible for AT&T to diversify its presence in the local market and quickly bring the benefits of competition to consumers.

17 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

18 A. Yes.

A.

1		SUPPLEMENTAL DIRECT TESTIMONY OF
2		JAMES A. TAMPLIN, JR.
3		ON BEHALF OF AT&T COMMUNICATIONS
4		OF THE SOUTHERN STATES, INC.
5		BEFORE THE
6		FLORIDA PUBLIC SERVICE COMMISSION
7		DOCKET NO. 960833-TP
8		Filed: AUGUST 23, 1996
9		
10	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
11	Α.	My name is James A. Tamplin, Jr. My business address is 1200 Peachtree Street,
12		NE, Atlanta, Georgia, 30309-3579.
13		
14	Q.	DID YOU TESTIFY PREVIOUSLY UNDER THIS DOCKET?
15	A.	Yes. I addressed the technical aspects (as opposed to pricing) of unbundled network
16		elements and interconnection.
17		
18	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY HERE?
19	A.	The purpose of my testimony is to discuss how the Federal Communications
20		Commission ("FCC") First Report and Order (including regulations) dated August 8
21		1996 (the "FCC Order") supports AT&T's positions on the technical issues relating
22		to unbundled network elements and interconnection that are before this Commission.
23		
24	ISSUE	: <u>ARE THE FOLLOWING ITEMS CONSIDERED TO BE</u>
25		NETWORK ELEMENTS, CAPABILITIES, OR FUNCTIONS? IF SO, IS IT

1		TECHNICALLY FEASIBLE FOR BELLSOUTH TO PROVIDE AT&T WITH
2		THESE ELEMENTS?
3		NETWORK INTERFACE DEVICE
4		LOOP DISTRIBUTION
5		LOOP CONCENTRATOR/MULTIPLEXER
6		LOOP FEEDER
7		LOCAL SWITCHING
8		OPERATOR SYSTEMS
9		DEDICATED TRANSPORT
10		COMMON TRANSPORT
11		TANDEM SWITCHING
12		SIGNALING LINK TRANSPORT
13		SIGNAL TRANSFER POINTS
14		SERVICE CONTROL POINTS/DATABASES
15		
16	Q.	PLEASE SUMMARIZE YOUR PREVIOUS TESTIMONY REGARDING
17		THE NETWORK ELEMENTS TO WHICH BELLSOUTH MUST PROVIDE
18		AT&T ACCESS ON AN UNBUNDLED BASIS?
19	A.	I described the twelve network elements to which AT&T requested access on an
20		unbundled basis pursuant to the Telecommunications Act of 1996 and explained why
21		AT&T needed access to those elements.
22		
23	Q.	DOES THE FCC ORDER ADDRESS ACCESS TO NETWORK ELEMENTS
24		ON AN UNBUNDLED BASIS?
25	A.	Yes, based on my review to date, the FCC Order supports AT&T's position on the

unbundling of network elements. The FCC Order confirmed that, if requested by AT&T, BellSouth must provide "non-discriminatory access to network elements on an unbundled basis at any technically feasible point under terms and conditions that are just, reasonable, and non-discriminatory." 47 C.F.R. § 51.307(a). The FCC Order concluded that unbundled access to the seven network elements identified in the FCC Order was technically feasible and that BellSouth, at a minimum, must provide AT&T access to those seven network elements. 47 C.F.R. § 51.319; FCC Order No. 96-325, ¶ 366, at 180-81. The FCC Order also concluded that State Commissions may impose additional unbundling requirements as long as such requirements are consistent with the Act and the FCC Order. 47 C.F.R. § 51.317; FCC Order No. 96-325, ¶ 244, at 124-25. Thus, the FCC Order does not preclude the Florida Commission from unbundling BellSouth's network into more than seven elements.

A.

O. DOES THE FCC ORDER DEFINE TECHNICAL FEASIBILITY?

Yes. The FCC Order deems access to unbundled network elements to be technically feasible absent purely technical or operational concerns that prevent access. 47 C.F.R. § 51.5 (to be codified). Incumbent LEC must prove to the appropriate State Commission that a particular interconnection or access point is not technically feasible. FCC Order No. 96-325, ¶ 198, at 102. A determination of technical feasibility does not include consideration of economic, accounting, billing, space or site concerns, except that Commissions may consider space and site concerns where no possibility exists for expanding the available space. 47 C.F.R. § 51.5 (to be codified). Similarly, whether a LEC must modify its facilities or equipment to provide access to unbundled network elements does not affect the determination of technical feasibility. Id.

1		
2	Q.	HOW DO THE FCC'S SEVEN IDENTIFIED NETWORK ELEMENTS
3		CORRESPOND TO AT&T'S TWELVE REQUESTED NETWORK
4		ELEMENTS?
5	A.	As demonstrated below, the FCC Order establishes that AT&T's requests for access
6		to unbundled network elements generally were reasonable and consistent with the Act.
7		Network Interface Device (NID) The FCC Order requires BellSouth to provide
8		access to the NID as AT&T requested. 47 C.F.R. § 51.319(b) (to be codified); FCC
9		Order No. 96-325, ¶¶ 392-96, at 194-96. The FCC Order, however, provided that
10		State Commissions should determine whether direct connection between a new
11		entrant's local loop and the incumbent LEC's NID is technically feasible. FCC Order
12		No. 96-325, ¶ 396, at 196.
13		Local Loop The FCC Order requires BellSouth to provide access to the Local
14		Loop, which consists of a combination of three of the sub-loop elements (Loop
15		Distribution, Loop Concentrator/Multiplexer, and Loop Feeder) that AT&T
16		requested. 47 C.F.R. § 51.319(a) (to be codified); FCC Order No. 96-325, ¶¶ 377-
17		96, at 187-96. The FCC Order declines to identify the Loop Distribution, Loop
18		Concentrator/Mutiplexer, and Loop Feeder as unbundled network elements only
19		because certain technical questions remained unanswered. FCC Order No. 96-325, ¶
20		391, at 193. The FCC Order concluded, however, that the evidence in the record
21		relates primarily to logistical, rather than technical, impediments to sub-loop
22		unbundling, which do not represent "technical" considerations under the FCC's
23		interpretation of "technical feasibility." FCC Order No. 96-325, ¶ 390, at 192-93.
24		Indeed, the FCC Order specifically requires the unbundling of Integrated Digital Loop
25		Carrier-delivered ("IDLC") loops, which actually refers to the portion of the Local

1	Loop that AT&T calls the Loop Feeder. FCC Order No. 96-325, ¶ 384, at 190.
2	With respect to unbundling other types of sub-loops, the FCC remanded the
3	determination of technical feasibility to the State Commissions and "encourage[d]
4	states to pursue subloop unbundling in response to requests for subloop elements by
5	competing providers. FCC Order No. 96-325, ¶ 391, n.851, at 194.
6	Switching Capability The FCC Order requires BellSouth to provide access to
7	Switching Capability, which includes two of the functionalities that AT&T requested.
8	47 C.F.R. § 51.319(c) (to be codified); FCC Order No. 96-325, ¶¶ 410-427, at 202-
9	10. The first functionality involves Local Switching and includes all vertical features
10	and any technically feasible customized routing functions. 47 C.F.R. § 51.319(c)(1)
11	(to be codified); FCC Order No. 96-325, ¶¶ 410-424, at 202-09. The FCC declined
12	to include Data Switching (i. e., packet switching) in its definition of Local Switching
13	as one of the mandatory unbundled network element because of the limited number of
14	commenters on the subject. FCC Order No. 96-325, ¶ 427, at 210. The FCC Order,
15	however, does not prevent the Florida Commission from unbundling Data Switching.
16	The second functionality that AT&T requested and the FCC Order included in
17	Switching Capability is Tandem Switching. 47 C.F.R. § 51.319(c)(2) (to be
18	codified); FCC Order No. 96-325, ¶¶ 425-26, at 209-10. Among other functions, the
19	FCC Order defines Tandem Switching to include the routing of calls to operator
20	services. 47 C.F.R. § 51.319(c)(2)(iii) (to be codified); FCC Order No. 96-325, ¶
21	426, at 210.
22	Operator Systems The FCC Order requires BellSouth to provide access to Operator
23	Systems as AT&T requested. 47 C.F.R. § 51.319(g) (to be codified); FCC Order
24	No. 96-325, ¶¶ 534-540, at 266-69. Operator Systems is separate from switching.
25	Interoffice Transmission The FCC Order requires BellSouth to provide access to

1	Interoffice Transmission, which includes the functionalities of Dedicated and
2	Common Transport that AT&T requested. 47 C.F.R. § 51.319(d) (to be codified);
3	FCC Order No. 96-325, ¶¶ 439-51, at 215-20. Interoffice Transmission is separate
4	from switching.
5	Signaling Networks and Call-Related Databases The FCC Order requires
6	BellSouth to provide access to Signaling Networks and Call-Related Databases,
7	which includes the functionalities of Signaling Link Transport, Signal Transfer Point
8	("STP") and Service Control Point/Database that AT&T requested. 47 C.F.R. §
9	51.319(e) (to be codified); FCC Order No. 96-325, ¶¶ 479-500, at 235-46. The FCC
10	Order also requires BellSouth to provide access to its call-related databases (e. g.,
11	LIDB, Toll Free Calling and AIN databases) for the purpose of switch query and
12	database response through the SS7 network. 47 C.F.R. § 51.319(e)(2) (to be
13	codified). The FCC Order further requires BellSouth to provide access to its Service
14	Management Systems ("SMS"), which allow new entrants to create, modify or update
15	information in BellSouth's databases. 47 C.F.R. § 51.319(e)(3) (to be codified). In
16	addition, the FCC Order requires BellSouth to provide a new entrant like AT&T with
17	the same access to design, create, test, and deploy AIN-based services at the SMS
18	that BellSouth provides for itself. 47 C.F.R. § 51.319(e)(3)(C) (to be codified).
19	The FCC Order declined to determine whether it is technically feasible to interconnect
20	third party call-related databases to the incumbent LEC's signaling system because
21	there was not enough evidence in the record to make that determination. FCC Order
22	No. 96-325, ¶ 501, at 246. The FCC Order, however, concluded that State
23	Commissions could find that such an arrangement is technically feasible. FCC Order
24	No. 96-325, ¶ 502, at 247. Indeed, the FCC Order reported that the Illinois
25	Commission recently ordered access to an incumbent LEC's AIN that does allow for

1		this type of interconnection. <u>Id.</u>
2		Operations Support Systems The FCC Order requires BellSouth to provide access
3		to its Operations Support Systems. 47 C.F.R. § 51.319(f) (to be codified); FCC
4		Order No. 96-325, ¶¶ 516-528, at 258-63. Although AT&T had not requested access
5		to Operations Support Systems and the information contained therein as a separate
6		network element, AT&T has requested that BellSouth provide access through
7		electronic interfaces to its Operations Support Systems as a necessary requirement to
8		competition in the local exchange market.
9		
10	ISSUE	: SHOULD AT&T BE ALLOWED TO COMBINE
11		BELLSOUTH'S UNBUNDLED NETWORK ELEMENTS IN ANY MANNER IT
12		CHOOSES, INCLUDING RECREATING BELLSOUTH SERVICES?
13		
14	Q.	PLEASE SUMMARIZE YOUR PREVIOUS TESTIMONY REGARDING
15		THE COMBINATION OF UNBUNDLED NETWORK ELEMENTS TO
16		CREATE A TELECOMMUNICATIONS SERVICE THAT RESEMBLES AN
17		EXISTING SERVICE THAT BELLSOUTH OFFERS?
18	A.	I explained that the Act mandates that BellSouth "shall provide such unbundled
19		network elements in a manner that allows requesting carriers to combine such
20		elements in order to provide such telecommunications service." 47 U.S.C. §
21		251(c)(3). Accordingly, BellSouth cannot restrict how AT&T uses or combines
22		unbundled network elements to provide any particular telecommunications service.
23		
24	Q.	DOES THE FCC ORDER ADDRESS RESTRICTIONS ON COMBINING
25		UNBUNDLED NETWORK ELEMENTS TO PROVIDE A

1		TELECOMMUNICATIONS SERVICE?
2	A.	Yes. The FCC Order reiterates the statutory mandate quoted above and prohibits
3		BellSouth from imposing limitations, restrictions or requirements on the use of
4		unbundled network elements that would impair the ability of AT&T to offer any
5		telecommunications service in whatever manner AT&T intends. 47 C.F.R. §§
6		51.307(c), 51.309(a), 51.315(a) (to be codified); FCC Order No. 96-325, ¶¶ 328-
7		341, at 164-68. The FCC Order specifically rejected the argument advanced by
8		BellSouth, among others, that allowing carriers to use solely unbundled elements to
9		provide services available through resale would somehow allow carriers to evade
10		potential resale restrictions imposed by State Commissions. FCC Order No. 96-325,
11		¶ 337, at 167-68.
12		
13	ISSUE	: <u>WHAT ARE THE APPROPRIATE TRUNKING</u>
14		ARRANGEMENTS BETWEEN AT&T AND BELLSOUTH FOR LOCAL
15		INTERCONNECTION?
16		
17	Q.	PLEASE SUMMARIZE YOUR PREVIOUS TESTIMONY REGARDING
18		THE APPROPRIATE TRUNKING ARRANGEMENTS BETWEEN AT&T
19		AND BELLSOUTH FOR INTERCONNECTION?
20	A.	I explained that AT&T has requested the ability to interconnect its local network with
21		that of BellSouth using both one-way and two-way trunk groups and requested that
22		these trunks ultimately carry intraLATA, interLATA, and local traffic concurrently.
23		These requests improve the efficiency of interconnection by commingling traffic
24		originating and terminating on either BellSouth's or AT&T's network on larger, more
25		efficient trunk groups between the two networks.

1		
2	Q.	DOES THE FCC ORDER ADDRESS TRUNKING ARRANGEMENTS?
3	A.	Yes, the FCC Order supported AT&T's position on trunking arrangements. With
4		respect to two-way trunking, the FCC concluded that "where a carrier requesting
5		interconnection pursuant to section 251(c)(2) does not carry sufficient amount of
6		traffic to justify separate one-way trunks, an incumbent LEC must accommodate two-
7		way trunking upon request where technically feasible." FCC Order No. 96-325, ¶
8		219, at 112. The FCC reasoned that a LEC could raise costs for new entrants and
9		create a barrier to entry by refusing to provide two-way trunking. <u>Id.</u> A LEC's
10		refusal to provide two-way trunking, therefore, violates the Act because it is not just,
11		reasonable or non-discriminatory. <u>Id.</u>
12		
13	ISSUE	DO THE PROVISIONS OF SECTIONS 251 AND 252 APPLY
14		TO ACCESS TO UNUSED TRANSMISSION MEDIA (E. G., DARK FIBER,
15		COPPER-COAXIAL CABLE, TWISTED PAIR)? IF SO, WHAT ARE THE
16		APPROPRIATE RATES, TERMS, AND CONDITIONS?
17		
18	Q.	PLEASE SUMMARIZE YOUR PREVIOUS TESTIMONY REGARDING
19		ACCESS TO UNUSED TRANSMISSION MEDIA.
20	A	I explained that AT&T had requested that BellSouth lease to AT&T BellSouth's
21		unused transmission media and that BellSouth had not agreed to AT&T's request
22		AT&T needs the ability to lease unused transmission media to facilitate its ability to
23		build its own network transmission facilities efficiently and minimize the capital
24		investment that acts as a barrier to AT&T in developing its own network.
25		

1	Q.	DOES THE FCC ORDER ADDRESS UNUSED TRANSMISSION MEDIA?
2	A.	The FCC Order declines to address the unbundling of an incumbent LEC's "dark
3		fiber" because the record before the FCC was insufficient to determine whether "dark
4		fiber" is a network element. The FCC will continue to review the issue and will
5		revise its rules as necessary.
6		
7	ISSUE	: <u>IS IT APPROPRIATE FOR BELLSOUTH TO PROVIDE</u>
8		COPIES OF ENGINEERING RECORDS THAT INCLUDE CUSTOMER
9		SPECIFIC INFORMATION WITH REGARD TO BELLSOUTH'S POLES,
10		DUCTS, AND CONDUITS? HOW MUCH CAPACITY, IF ANY, IS
11		APPROPRIATE FOR BELLSOUTH TO RESERVE WITH REGARD TO ITS
12		POLES, DUCTS, AND CONDUITS?
13		
14	Q.	PLEASE SUMMARIZE YOUR PREVIOUS TESTIMONY REGARDING
15		ACCESS TO ENGINEERING RECORDS AND THE RESERVATION OF
16		CAPACITY FOR POLES, DUCTS AND CONDUITS?
17	A.	I explained that AT&T requested access to rights-of-way, conduits, pole attachments,
18		and any other pathways on terms and conditions equal to that which BellSouth
19		provides itself or any other party. In response to AT&T's request, BellSouth stated
20		that it was entitled to reserve five years worth of capacity for itself and refused to
21		provide AT&T copies of engineering records. These two areas of dispute
22		significantly restrict and impede AT&T's access to rights-of-way, conduits, pole
23		attachments, and any other pathways in contravention of the Act.
24		
25	0.	DOES THE FCC ORDER ADDRESS ACCESS TO ENGINEERING

1		RECORDS AND THE RESERVATION OF CAPACITY FOR POLES,
2		DUCTS AND CONDUITS?
3	A.	Yes. In general, the FCC Order prohibits BellSouth from favoring itself over other
4		parties with respect to the provision of telecommunications services unless
5		specifically provided for by the Order. FCC Order 96-325, ¶ 1157, at 576.
6		Specifically, the FCC Order prohibits BellSouth from favoring itself and
7		discriminating against AT&T by reserving capacity for BellSouth's future needs at
8		the expense of AT&T's current needs. FCC Order 96-325, ¶ 1170, at 581. The FCC
9		Order also sets forth an expectation that BellSouth will make its maps, plats and other
10		relevant data available for inspection and copying (subject to reasonable conditions to
11		protect proprietary information) when BellSouth receives a legitimate request for
12		access to its facilities or property. FCC Order 96-325, ¶ 1223, at 603.
13		
14	ISSUI	SHOULD BELLSOUTH BE REQUIRED TO PROVIDE INTERIM NUMBER
15		PORTABILITY SOLUTIONS BESIDES REMOTE CALL FORWARDING? IF
16		YES, WHAT ARE THE COSTS INVOLVED AND HOW SHOULD THEY BE
17		RECOVERED?
18		
19	Q.	PLEASE SUMMARIZE YOUR PREVIOUS TESTIMONY REGARDING
20		INTERIM NUMBER PORTABILITY?
21	A.	I explained that AT&T requested a wider range of options for implementing interim
22		Local Number Portability than BellSouth would agree to provide.
23		
24	Q.	DOES THE FCC ORDER ADDRESS INTERIM LOCAL NUMBER
25		PORTABILITY?

1	A.	The FCC Order mentions number portability and refers to its recent Number
2		Portability Order, FCC Order No. 96-286 released on July 2, 1996. FCC Order 96-
3		325, ¶ 16, n.11, at 12. In the Number Portability Order, the FCC agreed with AT&T
4		and other carriers that Congress intended that currently available number portability
5		measures be provided until a long-term portability method is technically feasible and
6		available. FCC Order 96-286, ¶ 112, at 59. FCC concluded that LECs are required
7		to offer interim number portability through Remote Call Forwarding (RCF), Flexible
8		Direct inward Dialing (DID) and other comparable methods because these methods
9		are currently available and technically feasible. FCC Order 96-286, ¶ 110, at 58-59.
10		
11	Q.	PLEASE SUMMARIZE YOUR TESTIMONY.
12	A.	The FCC Order makes clear that AT&T's requests that are now before this
13		Commission are reasonable and consistent with the Act. The Commission should use
14		the FCC Order as a baseline and take further pro-competitive actions to ensure that
15		Florida consumers receive the full benefits of robust competition.
16		
17	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
18	A.	Yes.

1		REBUTTAL TESTIMONY OF
2		JAMES A. TAMPLIN, JR.
3		ON BEHALF OF AT&T COMMUNICATIONS OF
4		THE SOUTHERN STATES, INC.
5		BEFORE THE
6		FLORIDA PUBLIC SERVICE COMMISSION
7		Docket No. 960833-TP
8		Filed: August 30, 1996
9		
10	Q.	PLEASE STATE YOUR NAME.
11	A.	My name is James A. Tamplin, Jr.
12		
13	Q.	HAVE YOU PREVIOUSLY OFFERED TESTIMONY IN THIS
14		PROCEEDING?
15	A.	Yes. I provided direct testimony on July 31, 1996 and supplemental testimony on
16		August 23, 1996.
17		
18	Q.	WHAT IS THE PURPOSE OF THE TESTIMONY YOU ARE CURRENTLY
19		OFFERING?
20	A.	I am providing rebuttal testimony that responds to the testimony of BellSouth on
21		selected issues. Specifically, I am responding to statements made by Messrs. Scheye,
22		Varner, Atherton and Milner. My rebuttal testimony focuses on appropriate trunking
23		arrangements (issue 8); the provision of unbundled network elements (issue 10(a));
24		and access to unused transmission media (issue 11).
25		

1	ISSUE	: WHAT ARE THE APPROPRIATE TRUNKING ARRANGEMENTS
2		BETWEEN AT&T AND BELLSOUTH FOR LOCAL INTERCONNECTION?
3		
4	Q.	HAVE YOU REVIEWED THE TESTIMONY SUBMITTED BY
5		BELLSOUTH ON THE ISSUE OF ONE-WAY TRUNKING FOR LOCAL
6		AND INTRALATA TRAFFIC?
7	A.	Yes.
8		
9	Q.	DOES THE TESTIMONY OFFERED BY BELLSOUTH PROVIDE A
10		JUSTIFICATION FOR THEIR REFUSAL TO PROVIDE TWO-WAY
11		TRUNKS?
12	A.	No. Mr. Varner admitted that 47 C.F.R. Section 51.305(f) provides that, if
13		technically feasible, BellSouth must provide two-way trunking upon request. Mr.
14		Atherton, however, offered only cost considerations and billing issues as support for
15		BellSouth's refusal to provide two-way trunking arrangements. A determination of
16		technical feasibility does not include consideration of economic, accounting, or billing
17		issues. 47 C.F.R. §51.5 (to be codified).
18		
19		Two-way trunking is technically feasible. BellSouth currently provides AT&T with
20		two-way trunking on AT&T's interLATA access. Moreover, AT&T has conducted
21		studies which demonstrate that two-way trunks provide efficiencies of up to 24%
22		greater than one-way trunks. Accordingly, BellSouth can and should provide two
23		way trunking.
24		
25	ISSUE	: ARE THE ITEMS SOUGHT BY AT&T CONSIDERED TO BE NETWORK

1		ELEMENTS, CAPABILITIES, OR FUNCTIONS? IF SO, IS IT
2		TECHNICALLY FEASIBLE FOR BELLSOUTH TO PROVIDE AT&T WITH
3		THOSE ELEMENTS?
4		
5	Q.	HAVE YOU REVIEWED THE TESTIMONY SUBMITTED BY
6		BELLSOUTH ON THE ISSUE OF UNBUNDLED NETWORK ELEMENTS?
7	A.	Yes. I have reviewed the testimony of Messrs. Scheye, Milner and Varner.
8		
9	Q.	BASED ON YOUR REVIEW, WHAT ARE THE REMAINING
10		DISAGREEMENTS REGARDING ACCESS TO UNBUNDLED NETWORK
11		ELEMENTS?
12	A.	According to Mr. Varner, BellSouth agrees that, based on the FCC's order, they must
13		provide non-discriminatory access, on an unbundled basis, to the following elements:
14		(1) the local loop, which includes three of AT&T's requested elements, Loop
15		Distribution, Loop Concentrator/Multiplexer, and Loop Feeder; (2) the Network
16		Interface Device ("NID"); (3) switching capability, including both local switching and
17		tandem switching capability; (4) interoffice transmission facilities, which includes
18		both dedicated and common transport; (5) signaling networks (access to service
19		control points through the unbundled STP) and call-related databases; (6) operation
20		support systems functions; and (7) operator services and directory assistance.
21		
22		Various areas of disagreement, however, still exist. First, the Commission must
23		resolve the issue of routing capability. BellSouth maintains that it will provide the
24		local loop, local switching, operator systems, and dedicated and common transport,
25		but it has refused to provide the type of switch changes that are necessary to provide

customized routing for AT&T's customers. Instead, BellSouth contends that customized routing is not technically feasible. Second, there are unsettled issues regarding the nature of access to the NID that BellSouth will allow. Third, this Commission must decide whether it is technically feasible to unbundle the subloop elements to which AT&T seeks access. Fourth, BellSouth wants to provide access to Advanced Intelligence Network ("AIN") triggers only in conjunction with a mediation device. AT&T seeks unmediated access. Finally, AT&T is seeking access to unused transmission media, or dark fiber. BellSouth claims it is not required to provide this access.

CUSTOMIZED ROUTING

A.

Q. WHAT IS CUSTOMIZED ROUTING?

Customized routing, what BellSouth calls "selective routing," is the ability of the switch to distinguish between customers for various purposes, including directing a competing LEC's customers' calls to a designated operator system, trunk group or other device. It thus affects access of AT&T's customers to services provided by AT&T, such as the ability of AT&T customers to reach an AT&T operator by dialing "0," and the branding of services.

Q. WHAT NETWORK ELEMENT AFFECTS ROUTING CAPABILITY?

22 A. The switch affects routing capability. All that is necessary to provide customized
23 routing is to provision data about AT&T's end user customers on the existing switch.

Q. HOW DO YOU RESPOND TO BELLSOUTH'S CLAIM THAT IT IS NOT

1		TECHNICALLY FEASIBLE TO PROVISION THE SWITCHES BECAUSE
2		THERE IS INSUFFICIENT CAPACITY ON THE SWITCHES TO ENTER
3		THE INFORMATION?
4	A.	A number of other incumbent LECs, including Ameritech, NYNEX, Pacific Bell,
5		SNET and GTE, have agreed that customized routing is technically feasible. In
6		Florida, sufficient capacity exists to provide customized routing by adding line class
7		codes to the switches. This would provide the interim arrangement until the "selective
8		routing" feature that Mr. Milner speaks about could be developed and deployed. See
9		e.g., Exhibit WKM-11, attached to Direct Testimony of Keith Milner. Additionally,
10		the industry should consider whether "selective routing" or some other alternative is
11		the appropriate long-term solution.
12		
13	Q.	ON WHAT DO YOU BASE YOUR STATEMENT THAT SUFFICIENT
L 4		CAPACITY EXISTS ON THE SWITCHES CURRENTLY IN USE TO ADD
15		LINE CLASS CODES?
16	A.	BellSouth utilizes five switches in Florida: the 1AESS, the 2BESS, the 5ESS, the
17		DMS-100, and the EWSD. The IAESS switch uses chart column tables, instead of
18		line class codes, as a routing technique. The capacity is a maximum of 1023. The
19		2BESS has 512 line class codes. The maximum number of line class codes in the
20		5ESS switch is 6000. The Northern Telecom DMS-100 switch employs line
21		attributes that are the equivalent of line class codes, and has a current capacity of
22		1024, with an increase to 2048 in the pending release. This capacity will further
23		increase to 4096 in the second quarter of 1997. The EWSD has a capacity of 4096.
24		This data is summarized in a comprehensive report to the Georgia Public Service
25		Commission, submitted on July 12, 1996. That report is in the record as JC1, Tab

287.

BellSouth currently uses up to 350 line class codes per switch. The Commission should not assume that each competitor entering the market would require the same number of line class codes currently used by BellSouth. One line class code is required for each group of similarly situated customers, in other words, those customers with the same routing/blocking treatment. Conservation of line class codes could ensure that capacity is not exceeded. Further, switch capacity will be expanded by the normal replacement of switches with newer models. Line class code conservation together with switch capacity expansion can be used to allow customized routing for all customers until a permanent industry solution is available. Therefore, all of the customized routing AT&T has requested is technically feasible.

NETWORK INTERFACE DEVICE ("NID")

A.

Q. DOES THE FCC ORDER ADDRESS ACCESS TO THE NID?

Yes. The FCC Order assumes that a new entrant, when providing its own facilities, will install its own NID on the customer's premises and interconnect to the customer's inside wiring by an external connection from the new entrant's NID to the existing NID. 47 C.F.R. § 51.319(a) (to be codified); FCC Order No. 96-325, ¶¶ 377-96, at 187-96. It states, however, that State Commissions should determine whether direct connection between a new entrant's local loop and the LEC's NID is technically feasible in the context of a specific request for such access. FCC Order No. 96-325, ¶ 396 at 196.

1	Q.	HOW WILL THE METHOD ASSUMED BY THE FCC AFFECT
2		COMPETITION?
3	A.	The arrangement in the FCC rule will be a deterrent to competition because many
4		customers will object to defacing their homes by attaching multiple devices, some of
5		which are attached to exposed wires. The exposed wires connecting these devices
6		have the potential to increase service outages for the customer because they are
7		exposed to the elements or could be inadvertently broken. Finally, installing a new
8		NID at each location will increase the labor and material costs to entrants into the
9		market.
10		
11	Q.	DOES THE ARRANGEMENT ASSUMED IN THE FCC ORDER CREATE
12		ANY PRACTICAL CONCERNS?
13	A.	The connection method in the FCC rule assumes that all NIDs look like the one
14		depicted in Exhibit WKM-2 to Mr. Milner's testimony. The drawing in that exhibit
15		represents a recent generation NID. Although the recent generation NIDs have
16		separate chambers for customer wiring and loop connections, many older NIDs do
17		not. The customer's wiring may not be in a separate location from BellSouth's
18		wiring. Accordingly, AT&T must have the right to access the portion of the
19		BellSouth NID that contains the loop connection, even if AT&T provides its own
20		NID.
21		
22	Q.	WHAT WOULD AT&T LIKE THE COMMISSION TO ORDER WITH
23		REGARD TO THE NID?
24	A.	For single residence homes, AT&T would like the opportunity to use any existing
25		capacity on the ILEC NID to directly connect its loops. If no spare terminals are

ì		available on the existing device, AT&T would like to directly connect to the
2		BellSouth NID after disconnecting and grounding the BellSouth loop distribution
3		facility. This solution will mitigate BellSouth's concerns regarding bodily harm and
4		property damage because, in all cases, its loops will still be terminated on the existing
5		NID and will have the protection the device provides. This solution also eliminates
6		problems introduced by exposed wiring, and it will reduce the number of cases in
7		which customers will be inconvenienced by multiple devices attached to their homes.
8		
9	Q.	BELLSOUTH HAS STATED A CONCERN THAT PROVIDING
10		UNLIMITED ACCESS TO THE NID WOULD CAUSE A PROBLEM
11		BECAUSE OF ELECTRICAL HAZARDS. HOW WOULD AT&T
12		ADDRESS THAT CONCERN?
13	A.	AT&T understands the grounding requirements for the NID. Properly trained
14		technicians would ensure that all changes to the NID were consistent with the
15		National Electrical Code.
16		
17	Q.	WHAT DOES AT&T WANT THE COMMISSION TO ORDER WITH
18		REGARD TO MULTIPLE DWELLING UNITS AND OFFICE
19		COMPLEXES?
20	A.	Mr. Milner states in his testimony that a wide variety of NIDs are utilized in the
21		business setting, depending on customer requirements. He also noted that the NIDs
22		used in a business setting may not differ from those used in residential settings. If the
23		outside NID is similar to a single residence NID, it should be treated similarly to that
24		of a single residence. There should be no universal rule barring access to NIDs used
25		in a business setting. Absent technical or operational concerns specific to the type of

1		NID present, access should be allowed.
2		
3		SUBLOOP ELEMENTS
4		
5	Q.	DID THE FCC ORDER REQUIRE UNBUNDLING OF THE SUBLOOP
6		ELEMENTS?
7	A.	The FCC determined that the technical feasibility of subloop unbundling is best
8		addressed at the state level on a case by case basis, and "encourage[d] states to
9		pursue subloop unbundling in response to requests for subloop elements by competing
10		providers." FCC Order No. 96-325, ¶ 391, n.851, at 194.
11		
12	Q.	AT&T HAS REQUESTED THE UNBUNDLING OF THE LOOP
13		DISTRIBUTION, LOOP CONCENTRATOR/MULTIPLEXER, AND LOOP
14		FEEDER. IS THE UNBUNDLING OF THESE ELEMENTS
15		TECHNICALLY FEASIBLE IN THE STATE OF FLORIDA AT THIS
16		TIME?
17	A.	Yes.
18		
19	Q.	PLEASE EXPLAIN BELLSOUTH'S POSITION ON TECHNICAL
20		FEASIBILITY.
21	A.	BellSouth claims that it is not feasible to unbundle loop distribution and the loop
22		feeder because operations and support systems for administration of the loop would
23		be affected, special facilities would be necessary to provide access to the distribution
24		facilities, and establishing a permanent point of interface could constrain BellSouth
25		from altering the feeder/distribution networks or using new technology such as "fiber

in the loop" as a repla-	cement for copper.
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A.

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O. WHAT IS AT&T'S RESPONSE?

All of BellSouth's concerns can be addressed through modifications to these network elements. The FCC Order recognizes that obligations imposed by §§ 251(c)(2) and 251(c)(3) include modifications to facilities to the extent necessary to accommodate interconnection or access to network elements. First, BellSouth will be able to administer their system if AT&T connects only to the loop distribution or the loop feeder. Their operations and support systems equipment and monitoring equipment may be located at various points in the line. It need not be located so that it monitors only the entire loop. Additional monitors could be placed at the interfaces on the Feeder Distribution Interconnector (FDI), for example. Second, AT&T is not asking for the unbundling of items that it is infeasible to unbundle such as fiber loops. Seventy percent of BellSouth's loops are copper. Connections to the subloop elements could be made at the NID, at either the feeder side or the distribution side of the FDI and/or at the Main Distribution Frame ("MDF"). Further, the FCC specifically states that it is technically feasible to unbundle Integrated Digital Loop Carriers. FCC Order No. 96-325, ¶ 391, at 194.

ADVANCED INTELLIGENCE NETWORK

Q.

BELLSOUTH MAINTAINS THAT IT CANNOT PROVIDE ACCESS TO
THE ADVANCED INTELLIGENCE NETWORK ("AIN") IN CERTAIN
SWITCHES BECAUSE IT IS NOT TECHNICALLY FEASIBLE TO
PROVIDE ACCESS WITH ALL OF THE FEATURES AT&T HAS

REQUESTED.	WHAT IS	AT&T'S	RESPONSE?
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A. BellSouth maintains that access can be allowed only through a mediation device and that such mediation device is not currently available. Mediation devices are not necessary and they decrease the quality of the service available to AT&T customers.

I have attached as Exhibit JATR-1 a copy of a test report summarizing tests that AT&T and BellSouth conducted on AIN interconnection. See AT&T Integrated Test Network ("ITN") - BellSouth AIN Test Laboratory, Advanced Intelligence Network ("AIN"), Interconnectivity Test Report, Approval Copy, dated November 15, 1995.

This report demonstrates that unmediated access to the AIN through the SS7 signaling system is technically feasible.

A.

Q. DID THE FCC ORDER ADDRESS ACCESS TO THE AIN?

The FCC Order concluded that access to AIN Service Control Points ("SCPs") is technically feasible, but noted that such access may present a need for mediation mechanisms to, among other things, protect data in the AIN SCPs and ensure against excessive traffic. FCC Order No. 96-325, ¶ 488, at 240. AT&T does not believe that mediation is necessary. The SS7 already contains safeguards against traffic overload and unauthorized access. If mediation is to be allowed, any mediation must be performed on a non-discriminatory basis. Mediation of only the competing LEC's interchange with the SCPs will create an unfair competitive advantage for the incumbent LECs. Mediation will take time and increase post dial delay, thereby creating a difference between the service offered by the incumbent and the service offered by others. Similarly, any network management controls invoked to protect the SCP from an overload condition must be applied equally for all users of that

1		database, including the LEC.
2		
3	ISSUE	: DO THE PROVISIONS OF SECTIONS 251 AND 252 APPLY TO
4		ACCESS TO UNUSED TRANSMISSION MEDIA (E.G. DARK FIBER)?
5		
6	Q.	BELLSOUTH MAINTAINS THAT DARK FIBER IS NEITHER A
7		NETWORK ELEMENT NOR A RETAIL SERVICE AND, THEREFORE, IT
8		NEED NOT BE PROVIDED. WHAT IS AT&T'S RESPONSE?
9	A .	Dark fiber is a network element that is currently not in use. It is nonetheless a part of
10		the network because it is "a facility or equipment used in the provision of a
11		telecommunications service." 47 C.F.R. § 51.5 (to be codified). The fact that it is
12		not currently in use does not change its purpose: its only use is the provision of
13		telecommunications services. Therefore, it is a network element currently in the
14		possession of incumbent LECs which, if provided to new market entrants, could
15		facilitate competition. For example, AT&T will want to deploy SONET rings in
16		certain market areas to create competitive facilities. Building these rings will require
17		the placement of many miles of fiber with the attendant difficulties of obtaining
18		rights-of-way, conduit and pole space, and building permits BellSouth's failure to
19		provide fiber already in place will increase the financial and administrative cost of the
20		telecommunications services AT&T seeks to offer.
21		
22	Q.	WHY WAS DARK FIBER NOT ONE OF THE ORIGINAL TWELVE
23		NETWORK ELEMENTS THAT AT&T REQUESTED?
24	A.	AT&T has always asked for the ability to purchase dark fiber at cost-based rates.
25		Our proposed interconnection agreement, however, categorized dark fiber as an

1		ancillary function, along with collocation and right-of-way. The categorization does
2		not change the need for dark fiber to promote facilities-based competition.
3		
4	Q.	DOES THAT CONCLUDE YOUR TESTIMONY?
5	A.	Yes.

1	Q (By Mr. Tye) Mr. Tamplin, have you prepared a
2	summary of your testimony?
3	A Yes, sir, I have.
4	Q Could you deliver that summary at this time?
5	A Yes, sir, I will. Commissioners, the focus of
6	my testimony is unbundling network elements. As
7	Mr. Gillan stated
8	CHAIRMAN CLARK: Mr. Tamplin, are we going to
9	look at these monitors as part of your summary?
10	WITNESS TAMPLIN: Yes, ma'am, you will. I was
11	under the impression that there were monitors in your
12	desk that you could see.
13	CHAIRMAN CLARK: You're right. Thank you.
14	WITNESS TAMPLIN: I apologize.
15	CHAIRMAN CLARK: I think I owe you an
16	apology. Go ahead.
17	WITNESS TAMPLIN: As Mr. Gillan stated,
18	unbundling network elements is critical to competition
19	in the local market. AT&T originally asked for 12 to be
20	unbundled. They're depicted on this chart behind me.
21	It's not on your monitor. It's up here on this chart
22	behind me. There are 12 depicted there. We've had
23	further negotiations with BellSouth.
24	Elements 2, 3 and 4 there, we've come to an
25	agreement with BellSouth of a procedure to enact on a

bona fide request from AT&T at a later date. We've combined those three elements into a single element referred to as the loop. So now that they are only ten network elements that we're referring to, all ten of these network elements are technically feasible of being unbundled. At the present time, BellSouth refuses to unbundle these elements as AT&T has requested.

What I intend to do now is provide two demonstrations to you. First will be a demonstration on how some of these network elements are used in actually completing a call, a very common call that you would make today. The other will be a description in more detail of each one of these individual network elements. And as I go through them, since -- because of time, I'm going to be at a very high level. If there are questions, I'll be glad to entertain them and stop the demonstration during that time.

(Reporter's note: CD-ROM Video accompanying summation.)

Going to the first demonstration, the call, as I was referring to, this is a call from you to a friend of yours across town on the other side of Tallahassee. What you have here is you pick up the phone in your home. That indicates a signal that goes out over the copper wires from your home to an orange box there that

you see on the monitor. That's referred to as a distributor concentrator. And this is a place where your neighbors' wires are tied together with your wires, and a bigger copper cable goes to the next orange box, which is referred to as a feeder distribution interface. Here your and your neighbors' wires are combined with those of people in another subdivision, and a larger copper wire goes to the end office serving you.

Now, I've used the term "end office." You'll hear people talk about "local serving office" or "switching office," or various other functions. But I use the term "end office." And this is the office that provides dial tone to you as a customer. (Pause)

Upon receiving the dial tone, you punch in the digits of your friend across town in Tallahassee. When the switch gets this, it sends out a message on the signaling network, which is a small network inside of the local network. You saw the message go out. And what that is doing is setting up a path between the end office serving you and any other offices in the path between the end office serving you and the end office serving your friend across town.

In this particular situation, there is a tandem switch which functions to interconnect the two

end offices together. Between your end office and the tandem switch is a wire or cable, referred to as common transport. Common transport gets its name from the fact that it's used by more than one carrier, i.e., BellSouth, AT&T, MCI and others.

Once it gets to the tandem switch, again, a message is sent out on a signaling network to set up the call path to the end office providing service to your friend on the other side of Tallahassee.

Here again, a call path is set up for the call. As indicated on your monitor, this is in blue, and it's indicated as being common transport. Let's say that your friend had AT&T for service, and that end office was an AT&T switch instead of a BellSouth switch. Instead of being common transport, or transport used by more than one carrier, it would be dedicated transport used only by AT&T for its traffic.

Going back to our example, it's common transport, and the service is being delivered to your friend's end office on the other side of Tallahassee.

Once the switch gets the message, it provides a ringing signal to your friend.

(Video: Hello.)

WITNESS TAMPLIN: This is a very common call.

It's one that you make several times every day, but it

involves most of the network elements that we're talking about. And it gives you an indication of how these work together.

Now, what I would like to do is switch back and put on the monitor a chart that looks very similar to the one behind me here. And what I want to do is divide the chart sort of in half. And let's look at the local switching element, which is in green there, and sort of separate the schematic into two pieces: The network side and the local loop side.

The switch essentially provides the definition or the boundary line between those two sections. The local switching element is essentially that end office providing you with dial tone. You can see here cabinets that house the local switches. This is what an end office looks like on the inside. We've also got pictures of the lines coming in, cables running through, and even fiber optic cables.

Essentially, a switch is a large computer.

You've got the customer lines coming in on one side, and you've got the trunks going out on the other side.

These trunks could be for 411, 911 or operator services, or it could be going out to the tandem switch that we talked about earlier, or another end office, or to one of the long distance carriers.

Each one of these customer lines coming in on the left-hand side is identified to the switch with a parameter called the line class code. The line class code identifies to the switch the path to take for that call that's coming in. If the customer dials 911, for instance, an emergency call, it develops a path to go through the switch to deliver that traffic. The same thing happens with 411, or zero, for operator.

In the equal access environment, what had to take place was special line class codes had to be developed to identify that instead of going to a single long distance carrier, that call could go to more than one, to MCI, or to Sprint or to other carriers, other than AT&T. So if the customer selects AT&T as their long distance carrier, the line class code is going to identify that that call should go out and go to AT&T.

Now, let's go back to our schematic. Another type of switch in the network that we talked about was the tandem switch, that interconnecting switch. It essentially connects end offices together. It too is a computer. It takes calls in from one switch and delivers them to another switch going out. And there is common transport or dedicated transport coming out of it.

The next area that we want to look at is the

transport area. And let's look at, first, the common transport area. Common transport, as I said, is used by more than one carrier. Here the lines indicate that. If you're talking about dedicated transport, you have only one carrier that is using the transport.

Here you've got, going from the end office of Southern Bell -- or excuse me, BellSouth, and going to a designated end point that has been designated by the other competitive local exchange carrier, such as AT&T, MCI or Sprint.

Now, let's go back to our schematic and look at operator systems. Operator systems is composed of two parts: Operator services and directory assistance.

(Video: Calling person to person. What city are you calling, ma'am? AT&T. Hello, this is an AT&T operator. AT&T, how can I help you? Thank you very much for calling AT&T.)

WITNESS TAMPLIN: As you can see, this is an example of our world class operators. This is a service we want to provide to our customers. We want the capability of directly routing to our operator services platform or to our directory assistance platform.

Now, let's go back out to the schematic.

Remember I spoke earlier about the network inside the network, the signaling network. It's composed of three

portions: The signaling links, which essentially act as transport; the signal transfer point, which essentially functions in three manners. No. 1, is to set up call paths between switches or other STPs. Two is to connect to the service control point, which is a large database. And last but not least is to determine whether or not a signaling message should be eliminated from the system based on the fact that it's not a proper message and it does not meet the criteria that it's supposed to. If we could demonstrate those three functions -- first, going up to the database and getting information on the customer; second, setting up the call path that we saw it do earlier; and then validating that a message is correct or not; if not, eliminating it.

The service control point is essentially a large database. It provides call handling information to the network. There are some special databases that many people are familiar with today in the telecommunications industry. One of those is the 800 database. Another is Advanced Intelligent Network databases, which are providing some of the newer technology or new services that are going into existence today, such as voice recognition.

Going back to our schematic, we've looked at everything on the network side. On the other side, the

left-hand side, we've got the remaining two elements:
The network interface device, which provides a boundary
between the wires inside your home and the loop. You
see a picture here of the device on the side of your
house. And then elements 2, 3 and 4, which, as I said,
we've negotiated with BellSouth into being a single
element, the loop.

In closing, I would say that the focus of the Telecommunications Act of 1996 is to benefit consumers. The method selected to provide that benefit is through the creation of competition in the local market.

Consumers of Florida benefit from more choices of services and service providers, not less. To create this environment requires more, not fewer, unbundled network elements, and the ability to combine them as we see fit in providing services to our customers. AT&T is requesting the Commission to provide us these tools by resolving the remaining issues on the chart up here by me, all of which are technically feasible. Thank you.

Mr. Tamplin?

WITNESS TAMPLIN: Yes, sir, it does.

MR. TYE: Does that conclude your summary,

MR. TYE: Thank you. Madam Chairman, the witness is available for cross-examination.

CHAIRMAN CLARK: Mr. Melson?

MR. MELSON: No questions. 1 CHAIRMAN CLARK: No questions? Mr. Carver? 2 MR. CARVER: Yes, ma'am. Thank you. 3 CROSS EXAMINATION 4 BY MR. CARVER: 5 Good afternoon, Mr. Tamplin. Q 6 7 A Good afternoon. My name is Phil Carver and I represent 8 BellSouth. One preliminary question I wanted to ask you. My understanding was that originally AT&T had 10 requested 12 unbundled network elements; is that 11 correct? 12 Yes, sir. Α 13 Now the number you're down to now, is it nine 14 Q or is it ten? 15 No, sir, it's ten. 16 I just missed that part. Could you explain 17 again briefly how it got from 12 to ten? 18 Yes, sir. We combined network elements, 19 2 - the loop distribution, 3 - loop 20 concentrator/multiplexer, and 4 - loop feeder, into a 21 single element loop. 22 And that's the only change? Q 23 Α Yes, sir. 24 Let me ask you, if AT&T becomes a 25 Q

facilities-based provider in the local exchange market,
and BellSouth goes to AT&T and asks for unbundled
elements along the same lines that you're requesting
them, is AT&T going to provide that to BellSouth?

A Is AT&T, as a local exchange company, going to provide unbundled network elements to BellSouth as a local exchange company?

Q Well, let's say you build your own network and we want to buy your unbundled elements, would you offer them to them on the same terms that you're requesting them from us now?

A I don't know whether we would offer them on the same terms we're requesting now. I would presume that it would change as time goes by as to what the prices would be and what the negotiated rates or what the rates would be based on the Commission's orders.

Q What my question really goes to is, can you pledge that you would offer us a reciprocal arrangement, that basically you would offer us whatever it is that you want us to offer you?

A I think that AT&T's position as far as reciprocity goes is that we would abide by whatever the ruling of this commission is as far as reciprocity goes. If we are a local exchange competitor or local exchange company in the state of Florida, we would

expect to abide by the rules and regulations of this commission. And if the Commission orders that local exchange companies must make available unbundled network elements to those people requesting them, we would abide by those rules and regulations.

Q But absent an order of that sort, you don't see something like that being offered by AT&T in negotiations?

A I'm not aware that at the present time that that's what we're negotiating. I thought we were negotiating that BellSouth would provide those to AT&T as a competitive local exchange company.

Q Here's what I'm trying to get to. My question is, if at some point in the future you've got a network and we ask you to unbundle it, will you unbundle it?

And I think your answer was, basically, if the Commission tells you to.

My question is: Would you be willing to do it voluntarily without the Commission having to tell you to?

MR. TYE: Madam Chairman, I'm going to object to the question. I think it's well outside the scope of these proceedings. The Act requires the incumbent local exchange company to unbundle network elements.

Now, we have not -- BellSouth has made no

request from AT&T for some speculative network that may be constructed in the future. And I think it's unfair to ask the witness to speculate on what AT&T's position would be at some time in the future if such a network exists.

CHAIRMAN CLARK: Mr. Carver.

MR. CARVER: Well, I think if the witness doesn't know, he can just say he doesn't know. But what I want to know is, as a matter of policy, does he know whether AT&T is willing to offer reciprocal arrangements?

CHAIRMAN CLARK: Mr. Carver, you have not answered the objection to the question. As I understand it, it's an irrelevant question to this proceeding.

MR. CARVER: I'll withdraw the question.

- Q (By Mr. Carver) Mr. Tamplin, let's talk about network interface devices a little bit.
 - A Yes, sir.

- Q Now, in the network interface, where there's no spare capacity in the box, in that situation it's AT&T's desire that they would be able to disconnect BellSouth's loop from that and attach its own loop to that network interface device; is that correct?
- A Yes, sir. What AT&T has requested is in those instances -- and I think this is very important that we

all understand what this whole issue is about. somewhat difficult in the fact that we're no longer requesting that the distribution -- loop distribution be a separate network element. But let's say some time in the future when we made the bona fide request of BellSouth, that that took place and we did unbundle that network element, and for some reason -- for example, if AT&T contracted with the local Florida Power and Light, for instance, who had a distribution system going into a subdivision, and that distribution system had the capability of providing phone service over it, and they offered it to us at a less expensive rate than what BellSouth's rate was, AT&T would want the capability of purchasing that loop from Florida Power and Light, taking that and terminating it on the network interface device that is attached to the wires going inside the customer's home. We would want to remove the wires for the distribution loop from BellSouth, properly ground them, and do that work ourselves, yes, sir.

Q Okay, so I think you went a little beyond my question, but you anticipated my next question, which is that AT&T would want to do the grounding work on the BellSouth facility?

A Yes, sir, we would.

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Q Now, I take it AT&T has the confidence that

your installers or repair personnel would be able to handle this task competently?

A Yes, sir.

Q If BellSouth made the network interface device available to AT&T in the manner that you're requesting, wouldn't it have to give that same access to other competitors?

A At the same location, or at various locations, or what?

Q At various locations.

A Yes, sir. AT&T is not asking for something we would not expect to be offered to others.

Q And you can't really represent, can you, that these other companies would have equally competent personnel handling BellSouth's facilities, can you?

A No, sir. I can't tell you specifically that everybody is going to have equally competent personnel. My perception would be that there would be a certification process of the technicians who were doing this work and that there would be some standards be developed through negotiations with the -- with BellSouth that people would have to meet certain training criteria and certain qualifications before they would be certified to do this work. For instance, I can tell you that having worked with Sprint on the FTS 2000

government contract, I found that their technicians were as technically efficient as ours.

Q To the extent these technicians did have to be trained, who would pay for that?

A I would presume that their companies would do that as part of being prepared and qualified to do the work.

Q Now, if AT&T in this grounding process did cause some sort of a problem with the BellSouth facility, would AT&T be willing to indemnify BellSouth against any damages that your personnel caused?

A Yes, sir.

Q Let's talk a little bit about selective routing. Would you agree that currently selective routing is possible in some of BellSouth switches, but not in others?

A No, sir. The reason I say that -- and first of all, I think we need to be clarified a little bit. There are three different terms used for this thing in testimony, and I want to make sure that everybody is aware of what we're talking about -- selective routing, customized routing and direct routing, they're all the same. Very much like the switch, everybody uses a different term. But I would submit to you that every switch today that provides equal access generic has the

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capability of providing selective, customized or direct routing, whatever terminology you use.

Q Even the 1AESS switch?

A Yes, sir. It has the capability. In fact, in the 1983 to '85 time frame, when I was in front of this Commission talking about equal access, we made a big point of the fact that the 1AESS was a conforming end office, whereas the 1EES was non-conforming and it would be upgraded to a 1AESS as the generics became available.

Q Didn't the FCC specifically find that it was not technically feasible for the 1AESS switch?

A No, sir, it didn't find that it was not technically feasible of providing direct, customized or selective routing. What it found is there may be a capacity problem with the 1AESS rather than a capability problem. And we're talking capability here when we talk about technical feasibility.

Q So the distinction you're making, then, is that in theory it could provide selective routing, but it may be that the capacity is such that it's not really a practical way to go. Would you agree with that?

A No, sir, I don't agree with that. And the reason I don't agree with that is because, as you've heard earlier -- I believe somebody asked, subject to check, to Mr. Shurter about the 350 line class codes,

the 1AESS has a capability of 1,023. The term is not "line class codes," but it's essentially the equivalent. Those three -- the difference between that 350 and the 1,023, through conservative approaches that have already been spoken of in this hearing, can be used until a long-range implementation plan is put into place. So there is a capability there.

Q Now, during the proceeding before the FCC, didn't AT&T acknowledge that there was a problem with the 1AESS switch?

A We acknowledged that there is a capacity problem there as far as the 1AESS goes, and we also stated, I believe, that there was somewhere around 9.8 percent, or something. I can't remember the exact number of those switches that were in the network at the present time. That's a small percent, much smaller than what was non-conforming in the equal access era.

Q And it's your testimony that even for these 9.8 switches, the FCC did not find that selective routing was technically infeasible for them?

A No, sir.

Q Let me read you something from the FCC order and I would like to ask you what it means.

MR. TYE: Madam Chairman, could I inquire, is this the order that BellSouth appeared before this

commission and asked this commission to seek a stay of? Just so we're clear on which order we're talking about. 2 MR. CARVER: Yes, it is the same order. 3 there's something in here that, quite frankly, I don't understand, and I would just like the witness to tell us 5 what it is, because as I read the order, it's saying that this is not technically feasible. And if he's 7 saying it is, I would like for him to explain what the 8 language means here. 9 MR. TYE: Could you give us the cite of the 10 order? 11 MR. CARVER: Sure. I'm reading from the FCC 12 order, paragraph 418. This is 98-185. 13 WITNESS TAMPLIN: I'm sorry, sir, are you 14 going to read something to me? 15 (By Mr. Carver) Yes, sir, I am. I was 16 waiting for you to get to that paragraph. Are you ready? 18 Yes, sir. 19 Let's skip down about nine lines. 20 Q Right after the footnote 929? 21 Α Exactly. Now let me read this to you: "SBC 22 Q contends that customized routing is technically 23 infeasible for older switches, such as the 1AESS 24 AT&T acknowledges that, although the ability to 25

establish customized routing in 1AESS switches may be affected by the 'call load' in each office. Only 9.8 percent of the switches used by the seven RBOCS, GTE and SNET, are 1AESS switches. We recognize that the ability of an incumbent LEC to provide customized routing to a requesting carrier will depend on the capability of the particular switch in question. Thus, our requirement that incumbent LECs provide customized routing as a part of the 'functionality' of the local switching element applies, by definition, only to those switches that are capable of performing customized routing."

Now doesn't that basically say that this particular switch is not capable of performing it from a technical standpoint?

A No, sir.

Q Well, then, what does it mean?

A Sir, I would tell you, first of all, that when we acknowledge that the ability to establish it may be affected, I think the applicable word there is "may."

The second applicable word is the quotes "call load."

Call load is not referring only to line class codes. It also refers to the memory in the switch itself. And as Mr. Shurter talked about, you've got modifications that are being made to switches at all times. If, for instance, you had a particular switch that because of

its memory capacity, it hadn't been upgraded, then there may be a situation where memory, or the call volumes coming through that particular switch, in addition to the line class codes that were being used in that switch, might make it more difficult to have a large number of line class codes available.

And that's what we're acknowledging, that there may be instances in the 1AESS where call volumes, call loads, as well as the finite number of line class codes available in 1AESS, may make it a problem. That's what we've acknowledged. We haven't acknowledged -- and I didn't see anything there that says we've acknowledged that it's technically infeasible.

Q I wasn't asking so much if you had acknowledged it; I was asking if that's what the FCC order says in the language I just read?

A I'm sorry, sir, I don't see that it's saying that it's technically infeasible either.

Q So when it says that, "Our requirement that incumbent LECs provide customized routing as a part of the 'functionality' of the local switching element applies, by definition, only to those switches that are capable of performing customized routing," that doesn't imply to you that this particular switch is not capable?

A No, sir, it doesn't.

- How many line class codes equivalent are there Q 1 in this switch? 2 3 Α 1,023. And about how many will BellSouth need? 4 5 Α 350. How many will AT&T need? 6 Sir, I don't have an exact number. I can tell 7 Α you that in the Georgia Public Service Commission report 8 we've used numbers anywhere from 32 to 350. I can also 9 tell you, as you've already heard several of the 10 witnesses talk about, we're going to -- we've offered to 11 BellSouth to sit down with them in a conservative 12 fashion and to conserve the numbers that would be 13 required by AT&T. 14 Well, let's split the difference, just for 15 purposes of my question, between 32 and 350, and let's say you take a couple of hundred. That's 550 so far. 17 So the entire remaining capacity of the switch is -- my 18 math is not very good. 19 20 473. Thank you. So that's 473 to be divided 473. 21 among all the other new entrants who want selective 32, 22 correct? 23
- 24 A Yes, sir.
- 25 Q So isn't it likely that some of those new

entrants aren't going to get selective routing, even though they may want it?

A Yes, sir.

Q And from AT&T's perspective, that's not really a problem; is it?

A I wouldn't say that it's not a problem, sir.

AT&T, as we mentioned earlier, also has -- is

co-chairing with BellSouth an ICCF issue, No. 292, to

address long term this particular issue. AT&T, as

Mr. Shurter said, has only offered line class code as an

interim arrangement. There are other arrangements that

are more robust, specifically Advanced Intelligent

Network, which Bell Atlantic has already agreed that

they will put into place, beginning on the first of

April of next year and completing by the 30th of June of

next year.

Q In terms of line class codes though, and again we're just dealing with it as an interim solution, AT&T wants selective routing, even though it may not be available to other carriers; is that correct?

A Sir, I would say that AT&T wants selective routing even if it wouldn't be available to AT&T in every switch.

Q Okay, thank you. I've got just a couple more questions.

Now, has AT&T requested the use of unused 1 transmission media? 2 Yes, sir. 3 Α Dark fiber --4 Yes, sir. 5 -- in other words? Now that is -- correct me 6 Q if I'm wrong, but isn't that basically fiber that's 7 buried under ground but that's not connected to the 8 9 network? It's fiber in the network that's not presently 10 being used, yes, sir. 11 12 Q It's not connected to the network by means of the electronics that would make it work, is it? 13 14 I'm having trouble with your word 15 "connected," and let me explain why. I could put out a fiber carrier system, which may have a couple of the 16 strands turned up by the electronics. The other strands 17 would not. Those other strands that are not turned up 18 by the electronics would be referred to as dark fiber or 19 20 unlit fiber, or unused transmission media. And they would be essentially, maybe even in the same sheath, 21 22 going through the same conduit as the lit fiber. But to the extent it's not lit, it's not 23 Q functioning as part of the network, is it? 24

It's not being used in the network at the

present time, no, sir.

Q Okay. Wouldn't you agree that when you talk about unbundling network elements, that that necessarily means that what you're asking for is a network element as opposed to some additional material that might be used at some future point? Wouldn't you agree with that?

A No, sir. I think it's just another flavor of transport.

- Q So basically, in your view, dark fiber is a network element, even though it's not being used as part of the network. Is that a fair characterization?
 - A I would say that dark fiber --
 - Q I'm sorry, could I have a yes or no, please?
 - A Would you restate your question, sir?
- Q Even though dark fiber is not being used as part of the network, you want to be able to purchase it as an unbundled network element; is that correct?

A Yes, sir. I would say -- I'm having to accept an assumption by you, and here's what I'm having a problem with. Dark fiber today can be lit fiber tomorrow morning at 8:00. And you would then consider that as part of your network, and you would expect to earn revenues on that. Today, because the switch is not on, you're not earning revenues on, and you would be

willing to sell it, or lease it, or unbundle it tomorrow.

Q But your answer to my question is yes, though? Even though it's not currently part of the network, you still want to purchase it as an unbundled network -- or I'm sorry, as an unbundled network element; is that correct?

A Yes, sir.

Q Thank you. That's all I have.

CHAIRMAN CLARK: Staff?

CROSS EXAMINATION

BY MS. CANZANO:

Q Good afternoon, Mr. Tamplin. Could AT&T combine the unbundled elements that it has requested from BellSouth to recreate a particular BellSouth retail service by using the same elements used by BellSouth?

A I'm going to say no. And the reason I'm going to say no is very much for the same reason that Mr. Shurter -- and I can't remember whether Mr. Gillan was asked a similar type question or not. The issue is, if we take everything exactly the same as BellSouth provides it, that doesn't make it exactly the same service. We can mimic it. We can do a lot of different things in however we package it. But as long as someone else is involved in the providing of that service, it's

going to be different. It's going to be unique. 1 2 0 How will it be different or unique? 3 It will be marketed differently. It will be billed differently. It will be advertised differently. All of those different ways that -- you know, all those different things that companies do to provide the distinction between their service and someone else's. 7 8 Q Technically, would it be the same service, excluding marketing or administrative type functions? 9 If you had the exact same elements that were 10 used today on provisioning of a service to a customer. 11 12 and tomorrow you were going to use those exact same 13 elements, then technically it would be the same. 14

- Q Do you agree with BellSouth's position that recreating its retail service would create tariff arbitrage?
 - A Can you define the term you're using?
- Q Actually, what I would like to do is refer you to Mr. Scheye's testimony.
 - A I don't have a copy of that. I'm sorry.
- Q We'll get you a copy. And this would be his direct testimony that was filed in the MCI docket, the 846 docket. Just one moment and we'll get you a copy. And I'll direct you to Page 59, Lines 24 through 25.
 - A Yes, ma'am.

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- Q If you could read it and then read it out loud for the record, please?
 - A Read out loud the 24 through 25?
 - Q Yes, please.

20 I

- A Yes, ma'am. "Pricing at rates other than those that currently exist will create opportunities for tariff shopping and arbitrage."
- Q Do you agree with BellSouth that recreating its retail service would create tariff arbitrage?
- A I'm not sure I can answer that question. I don't have the information that would allow me to make any kind of decision on that.
- Q That's okay. We'll move on. Why is it so important for AT&T to recombine unbundled elements to recreate a particular BellSouth retail service?
- A I think the -- essentially you're in a situation where you have to start off from scratch when you're coming into an environment that you're not in previously. And you want to use all the elements that are available to you, whether its resale, unbundled elements or whatever. And depending on the particular customer, depending on the customer's characteristics for services and the like, AT&T is going to use a grouping of the available tools that are provided to it, whether it's resale, unbundled network elements, or

whether it's its own facilities -- operator services, directory assistance, our transport facilities, our switches, once we get them in place. So those kind of combinations we're going to use.

I think the key here of unbundled network elements is that it allows you, in those instances, where for the particular customer it's better to provide them using unbundled network elements and provide your operator services and your DA rather than resell a BellSouth service, that's what you're going to do.

Q In Mr. Scheye's testimony that you have in front of you, on Page 57, Lines 8 through 12, BellSouth basically argues that if the combination of unbundled services produces a service exactly like a BellSouth retail service, that the recombination should be purchased as a resold service. Do you agree with that?

A I really feel like I'm over my headlights right now. I heard similar questions to Mr. Gillan this morning. To me, what he said made a lot of sense, that unbundled network elements is a way of providing a competitor an opportunity to come into a marketplace and provide service to their constituents, their consumers.

Q On Page 31 of your direct testimony, on Lines 5 through 9, you indicate that AT&T has requested a wider range of options for implementing interim local

number portability than those to which BellSouth has agreed. Do you recall that?

A Yes, ma'am, I do.

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Q Could you identify these additional options for interim number portability?

A Well, one of the things with time frames and negotiations is things somewhat change. When we initially put this testimony in, we were looking at things such as route indexing, portability of. BellSouth has now agreed to provide that. We were looking for a LERG reassignment. BellSouth has agreed to provide that. We were look for a directory number route indexing. BellSouth has agreed to provide that. The remaining one is the LERG reassignment to the thousands block. And my understanding is there's still negotiations going on concerning that, and that's also an ICCF issue, No. 288, that's being looked at for not only for interim number portability, but also for the conservation of the NXX numbers due to their depletion in today's industry.

Q For those additional options, has BellSouth agreed to cost recovery for those additional options?

A I'm not aware of that. I recently found out that there's, I believe, an open docket on interim number portability pricing.

And are you referring to this Commission's 1 Q 2 open docket? 3 Yes, ma'am. And I know that hearings have A previously been held, and I think they've been recently 4 5 reopened, and I presume that those issues would be dealt with there. Do you think it makes more sense to deal with 7 Q that issue in that other docket than in this docket? I would submit that whichever one the 9 10 Commission found would be the most expedient way of dealing with the issue would be the best way to go. 11 a competitor, you want to get in the marketplace as 12 quickly as possible. So if the other docket would make 13 things quicker, that's the way we would want to go. 15 I understand that. Mr. Tamplin, do you have in front of you what's an exhibit produced by Staff 16 marked as JAT-3 consisting of your deposition transcript 17 and two late-filed deposition exhibits? 18 Yes, ma'am, and I did have one errata to my 19 deposition. Do you want me to point that out? 20 Yes, I do. 21 Q It's on Page 79, Line 2. The acronym -- it's 22

Q Thank you very much. At this time we would

got S, D as in dog, P, and it should have been S, T as

it Tamplin, P. That's the only correction.

23

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l like this marked for identification as an exhibit.

2 CHAIRMAN CLARK: It will be marked as 3 Exhibit 9.

MS. CANZANO: Thank you.

(Exhibit No. 9 marked for identification.)

Q (By Ms. Canzano) Mr. Tamplin, would BellSouth have to modify an integrated digital loop carrier in order to hand off traffic to AT&T?

A Depending on the way that you were providing service over that, if you said modify means that you would take AT&T's traffic off and you would put it on copper facilities that were already there, that would be one way of doing it. If you would say that -- and essentially this is a grooming function that goes on in today's network all the time, either handing it off to the copper pair, or to a universal digital loop carrier that was alongside it. If that facility, that integrated digital loop carrier had next generation or the new generation digital loop carrier capability on it, it wouldn't have to be modified, other than using one of the virtual remote terminal capabilities that is in there today.

The other thing is that it wouldn't have to be modified if you used a hairpin connection, because essentially it would only be handed off on the other

side of the digital switch. So there would need be no impact on the integrated digital loop carrier, between it and the switch. It would happen on the other side of the switch.

- Q Are you familiar with the SONET technology?

 And by that we meet synchronous optical network.
 - A Yes, ma'am.

Q In broad terms, can you explain how this technology is used?

A Yes, ma'am. It's the latest technology in facilities. It essentially uses light guide, or fiber, transport. It essentially provides the capability of self-healing the network, if you would like to think about it that way, in the fact that it provides the capability of almost instantaneous restoration of service, in that the consumer would not even perceive that a farmer had hit the facility with their backhoe, that all the service would -- you wouldn't even miss the sound of the person's voice on the other end of the line.

- Q Can you explain what an add/drop multiplexer is and how it's used?
- A Yes, ma'am. It is essentially used in a central office in which SONET technology is used. The fiber comes into the central office, comes into the

add/drop multiplexer, and that essentially functions as
a way of breaking down the facility from a DS3 to a DS1
type of capability. And you can add and take away
facilities at that point.

- Q Is AT&T requesting that BellSouth unbundle its SONET network?
 - A I'm not aware of a specific request for that.
- Q Thank you, Mr. Tamplin. Staff has no further questions.

CHAIRMAN CLARK: Commissioners? Redirect?

MR. TYE: Just a few, Madam Chairman.

REDIRECT EXAMINATION

BY MR. TYE:

- Q Mr. Tamplin, Mr. Carver asked you a few questions about dark fiber. Help me understand what dark fiber is. Is it fiber that's in the ground that's not currently being used?
- A Yes, sir. It's a facility -- I tried to explain in my example, when you put in a facility, as you can all imagine, it's a very expensive proposition, getting the right of way, having the contractor dig the ditch, putting the facility -- putting the actual fiber in the ground, covering it up. And when that's done, most carriers put in an amount of capacity that exceeds their immediate needs. And in some cases, in the

central offices, rather than incur the expense of

putting the electronics for the total capacity, they

only put in the electronics that are needed for the

existing capacity requirements, or for the immediate

future requirements.

So those other strands that are not connected to the electronics to make them work right now are referred to as dark fiber. They are essentially available, and they would be able to be turned up in a very short period of time to provide service to consumers.

Q Are they essentially laying in a ditch alongside fiber that's currently being used to serve consumers?

A As I also said, they could actually be in the same sheath. You could actually have a fiber -- a bundle of fibers going through the same conduit, and they could actually even be encapsulated inside of the same waterproofing around the fiber.

Q Now, is there a cost associated with having this fiber out here, even if it's not being used?

A The cost would be on essentially the patrolling or the maintenance of the fiber so that -- you know, checking to make sure the construction people coming around are not doing anything that would endanger

the fiber, or something like that. As far as the -- but that's what's done for the live, as well as the dark.

Q Does cable itself cost money, just to put it out there?

A The incremental cost of adding the additional fiber is very small, and that's essentially the reason you put the additional capacity out there, because it's so small compared to what it would cost you to go back and put the additional capacity in when you need it.

Q Now does BellSouth receive any income from this fiber before it turns it up?

A No, sir. That's what I was --

MR. CARVER: Excuse me, I would like to object to the question. This is going well beyond anything that I asked on cross-examination. My cross-examination was limited strictly to whether dark fiber is or is not a network element. These questions are going into cost issues that are completely unrelated to what I asked.

MR. TYE: I thought the cross-examination,
Madam Chairman, went to whether or not AT&T was entitled
to request the use of this dark fiber. And the
questions I'm trying to get -- trying to go to is the
point that the dark fiber does not generate any income
for BellSouth at the present time, and if it were made
available to AT&T for use, AT&T would pay for the cost.

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CHAIRMAN CLARK: Mr. Tye, I'll allow the
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 2
   question.
 3
                        I'm sorry, I did not catch your
              MR. TYE:
   ruling, Madam Chairman. I won, okay. I'm sorry, I
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 5
   won.
              CHAIRMAN CLARK: Mr. Tamplin, you may answer
6
7
   the question. I was trying to prevent Mr. Tye from
   answering his own question.
8
              WITNESS TAMPLIN: He probably did it more
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   eloquently than I did. And the reason I say that is
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   because I actually thought I had said that earlier in
11
   the fact that if BellSouth allowed dark fiber to be
12
   included as a network element, AT&T could lease that and
13
   BellSouth would gain revenues as a result of that, which
14
   are not -- they are not getting at the present time.
15
    fact, they're getting no revenues off.
16
             MR. TYE: Thank you, Mr. Tamplin.
17
   concludes my redirect, Madam Chairman.
18
              CHAIRMAN CLARK: Exhibits.
19
             MR. TYE: AT&T moves Exhibits 7 and 8.
20
             MS. CANZANO: Staff moves Exhibit 9.
21
              CHAIRMAN CLARK: Without objection, those
22
    exhibits are entered in the record.
23
              (Exhibit Nos. 7, 8 and 9 received into
24
    evidence.)
25
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MR. TYE: And we would ask that the witness be excused.

CHAIRMAN CLARK: Yes. Mr. Tamplin, you are excused. I would like to express my appreciation for you diligently answering yes and no at the beginning. It certainly helped expedite this procedure, and I suppose we have the Navy to thank for that.

WITNESS TAMPLIN: Yes, ma'am.

COMMISSIONER KIESLING: If I could, I would like to add, I also really did appreciate the graphics that were used because it was the first time that some of those things were actually portrayed in a visual way that helped me understand their interrelationship. So whoever we have to thank for the graphics, it was good.

MR. TYE: There were a lot of people involved, and we appreciate your thoughts on that. I've been in the telephone business 20 years and I didn't understand some of this stuff until I saw the graphics. Thank you.

CHAIRMAN CLARK: Thank you. I think we're going to go a little longer, and then we will take -- oh, all right. We have go ahead and take a ten-minute break right now. And then who is our next witness?

MR. HATCH: Madam Chairman, the next witness is Dr. Kaserman. He is, as we speak, on his way here.

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He is not physically present yet. So what my intent
 2
   would be, to request that we take the next witness,
   Wayne Ellison, out of order until Dr. Kaserman can get
 3
 4
   here, if he's not here when we reconvene.
 5
              CHAIRMAN CLARK:
                               That sounds fine.
   Mr. Lackey, did you want to object to that?
 6
7
             MR. LACKEY: I'm still trying to prepare for
8
   Mr. Ellison. I'm not ready yet.
              CHAIRMAN CLARK: We'll take it up when we get
9
   back.
10
             MR. LACKEY: If you give me ten minutes, I can
11
12
   get ready, I'm sure.
             CHAIRMAN CLARK: We will come back at quarter
13
   till 5.
14
              (Recess from 4:32 p.m. until 4:50 p.m.)
15
              CHAIRMAN CLARK: Let's go back on the record.
16
   The commissioners have kind of discussed what they're
17
   doing for dinner. The commissioners who are going to
18
   eat have sent out for it, and therefore we feel the need
19
   to take no half-hour break. But let me ask -- we are
20
   going to eat at the bench, so let me ask the parties, do
21
   you need a half an hour -- are you having food brought
    in? Would you like some time? We will conclude at
23
    about 8:00. We will not go much beyond 8:00. Staff?
24
              MS. CANZANO: We'll make arrangements. We'll
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1	work with your schedule.
2	CHAIRMAN CLARK: Ms. White?
3	MS. WHITE: Yes, we've made arrangements to
4	have dinner brought in, and I guess we just need to go
5	and get it, where it's being brought to.
6	CHAIRMAN CLARK: I'm sorry, I don't know your
7	name.
8	MR. MUTSCHELKNAUS: I'm Brad Mutschelknaus,
9	and ACS is fine. Our stomachs will last until 8:00.
LO	MR. HATCH: I'm ready.
L1	MR. MELSON: We're fine.
12	CHAIRMAN CLARK: Okay. Then let's go back to
13	the testimony.
L 4	MR. HATCH: AT&T would call Wayne Ellison to
15	the stand. Were you previously sworn, Mr. Ellison?
16	THE WITNESS: Yes, I was.
17	WAYNE ELLISON
18	was called as a witness on behalf of AT&T of the
19	Southern States, Inc., and having been duly sworn,
20	testified as follows:
21	DIRECT EXAMINATION
22	BY MR. HATCH:
23	Q Could you please state your name and business
24	address for the record, please?
25	A My name is Wayne Ellison. My business address

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is 1200 Peachtree Street, Atlanta, Georgia.
 1
 2
         Q
              By whom are you employed?
              I'm employed by AT&T.
 3
 4
              Did you prepare and cause to be filed direct,
    supplemental direct and rebuttal testimony in this
 5
   proceeding?
 6
              Yes, I did.
7
         Α
 8
         Q
              Do have any changes or corrections to any of
    your direct, supplemental or rebuttal testimonies?
 9
              Yes, I have just a few changes.
10
              Could you please give those?
11
         Q
              In my direct testimony, at Page 4, on Line 5,
12
         Α
    the reference there, paragraph (a)(2) should be changed
13
    to paragraph (b)(2). On Line 7, the referenced
14
    paragraph, (a)(4), should be changed to paragraph
15
    (b) (4).
16
              On Page 16, on Line 1, I would like to change
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    Line 1 to read "loops are most likely provisioned using
18
    2-wire POTS loops."
19
              And on Page 17, on Line 8, substitute .56 for
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    .19, place a period after the word "month," and strike
21
    the rest of that sentence, and also Line 9 and Line 10.
              I have one change on my supplemental.
23
              COMMISSIONER GARCIA: Wait a minute. I
24
    already have, I guess, what you wanted. Let's make
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sure, because you said you wanted to put in .19 over 1 2 here? 3 WITNESS ELLISON: No, sir. Let me repeat that. On Page 17 where it has a .19, I wanted to 4 substitute the number .56. 5 6 COMMISSIONER GARCIA: Okay. WITNESS ELLISON: And then on my supplemental, 7 Page 7, Line 4, replace the word "commission" with 8 "FCC." Those are all my changes. 9 (By Mr. Hatch) Subject to those changes, if I 10 asked the questions that are in your direct, 11 supplemental and rebuttal testimonies today, would your 12 answers be the same? 13 Yes, they would. 14 MR. HATCH: We would request that the direct, 15 supplemental and rebuttal testimony of Mr. Ellison be 16 inserted into the record as though read. 17 CHAIRMAN CLARK: It will be inserted into the 18 record as though read. 19 (By Mr. Hatch) Mr. Ellison, did you cause to 20 be prepared exhibits attached to your direct testimony 21 that are listed as WE-1 through WE-5 attached to your 22 direct testimony? 23 24 A Yes. Everything in there prepared by you or under

25

1	your super	rvision?
2	A	Yes.
3		MR. HATCH: Madam Chairman, could we have WE-1
4	through 5	marked for identification, please?
5		CHAIRMAN CLARK: Exhibits marked WE-1 through
6	5 will be	marked as Composite Exhibit 10.
7		(Exhibit No. 10 marked for identification.)
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1		DIRECT TESTIMONY OF
2		WAYNE ELLISON
3		ON BEHALF OF AT&T COMMUNICATIONS
4		OF THE SOUTHERN STATES, INC.
5		Docket No. 960833-TP
6	Q.	PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TITLE.
7	A.	My name is Wayne Ellison. My business address is 1200 Peachtree Street N.E.,
8		Atlanta, Georgia 30309. I am employed by AT&T as a District Manager in the Law
9		and Government Affairs organization.
10	Q.	WOULD YOU PLEASE STATE YOUR EXPERIENCE?
11	A.	I have 32 years experience in the telecommunications industry including 20 years as
12		a manager for C & P Telephone Company, now a part of Bell Atlantic, and 12 years
13		with AT&T. At C&P Telephone, I worked for 7 years in the outside plant
14		engineering organization where I was responsible for loop planning and design,
15		construction engineering and plant utilization. I also worked 13 years in the C&P
16		Telephone costs and economics organization. My primary responsibility within the
17		costs and economics organization was to supervise the analysis of service costs in
18		support of the Company's rate filings. During my time in the costs and economics
19		organization, I also administered plant purchases and sales transactions, negotiated
20		borderline billing agreements, and performed special separations analysis.
21		For the past twelve years I have been employed by AT&T. For a portion of that
22		time, I performed various service management functions. However, the majority of
23		my time with AT&T has been devoted to the advocacy of AT&T's positions as a
24		regulatory witness and to the analysis of information and issues in support of those
25		positions. This later assignment has required that I devote a considerable amount of

1		time to the analysis of local exchange company services, costs, and prices.
2	Q.	HAVE ANY OF YOUR PREVIOUS ANALYSES OF LOCAL EXCHANGE
3		COMPANY COSTS AND PRICES INVOLVED ANALYZING
4		BELLSOUTH'S COSTS AND PRICES?
5	A.	Yes. As a member of the AT&T Law and Government Affairs organization, I have
6		worked specifically with BellSouth prices and costs since 1985. During that time I
7		have monitored BellSouth's various service filings to determine their impact on
8		AT&T as both a competitor and customer. I have also examined BellSouth cost data
9		provided in regulatory proceedings and contained in publicly available documents.
10	Q.	BASED UPON YOUR PRIOR EXPERIENCE, DESCRIBE YOUR LEVEL OF
11		FAMILIARITY WITH BELLSOUTH COSTS.
12	A.	I am very familiar with many of the procedures and methods followed by BellSouth
13		to develop costs. BellSouth's procedures and methods are in fact very much like the
4		procedures and methods I followed at C & P Telephone to perform the same
15		functions. I am also familiar with BellSouth's stated costs for selected services in
16		the various BellSouth jurisdictions. I have not in the past been able to generally
17		verify the accuracy or suitability of BellSouth's stated costs for specific uses
18		because sufficient supporting documentation has not been available.
19	Q.	DESCRIBE YOUR INVOLVEMENT IN NEGOTIATIONS WITH
20		BELLSOUTH.
21	A.	I have been responsible for determining acceptable prices for BellSouth's network
22		elements and interconnection services. To meet this responsibility, I have
23		participated in AT&T's negotiations with BellSouth and have analyzed the cost data
24		that BellSouth has provided to AT&T.
25	O.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?

1	Α.	The purpose of my testimony is to:
2		1. Describe the basis for AT&T's pricing proposals.
3		2. Provide specific price recommendations for interconnection arrangements
4		between AT&T and BellSouth.
5		3. Provide specific price recommendations for numerous BellSouth unbundled
6		network element options requested by AT&T.
7		4. Recommend procedures for establishing prices for other requested network
8		elements; collocation; and access to poles, ducts, conduits, and rights-of
9		way where no relevant cost data are currently available.
10	Q.	WHY IS IT NECESSARY FOR THE COMMISSION TO ESTABLISH
11		PRICES FOR BELLSOUTH CAPABILITIES PROVIDED TO NEW
12		ENTRANTS IN THE LOCAL SERVICES MARKET?
13	A.	The Act requires the local exchange companies, including BellSouth, to provide
14		certain capabilities to new entrants in the local services market to facilitate the
15		development of local competition. The local companies are permitted to recover
16		their costs of providing these capabilities, but only to the extent that such charges
17		conform to specific provisions of the Act. BellSouth has not agreed to meet the
18		Act's pricing requirements. The Commission is therefore charged by the Act to
19		establish such prices as part of the arbitration process.
20	Q.	WHAT ARE THE REQUIREMENTS OF THE ACT REGARDING PRICING
21		FOR THESE VARIOUS CAPABILITIES?
22	A.	Section 251, paragraph (c)(2) of the Act requires that incumbent local exchange
23		carriers provide any requesting telecommunications carrier interconnection with the
24		local exchange carrier's network for the transmission and routing of telephone
25		exchange service and exchange access. Paragraph (c)(3) requires the incumbent to

1		provide to any requesting telecommunications carrier unbundled network elements.
2		Paragraph (c)(4) requires the incumbent to offer for resale at wholesale rates any
3		telecommunications service that the carrier provides at retail. Paragraph (c)(6)
4		requires the incumbent to provide physical collocation and, where physical
5		collocation is not practical, virtual collocation. Paragraph (x)(2) requires the
6		Company to provide number portability in accordance with requirements prescribed
7		by the FCC. Paragraph (a)(4) requires the Company to provide access to poles,
8		ducts, conduits, and rights-of-way.
9	Q.	WILL YOU DISCUSS PRICES FOR ALL THESE REQUIREMENTS IN
10		YOUR TESTIMONY?
11	A.	No. I will address each of the requirements with the exception of BellSouth services
12		offered for resale, which are addressed by AT&T witness Art Lerma, and number
13		portability requirements, which are being addressed by the FCC.
14	Q.	WHAT COSTS ARE ASSOCIATED WITH NETWORK
15		INTERCONNECTION?
16	A.	The primary component of cost within the interconnection category is the cost to
17		AT&T and BellSouth of terminating traffic originated by the other company's
18		customers. The Act specifies that each local exchange carrier has an obligation to
19		establish reciprocal compensation arrangements for the transport and termination of
20		such telecommunications traffic. More specifically, the Act requires that such
21		arrangements provide for the mutual and reciprocal recovery by each carrier of costs
22		associated with the transport and termination on each carrier's network of calls that
23		originate on the network of the other carrier.
24	Q.	WHAT COSTS ARE ASSOCIATED WITH THE PROVISION OF
25		NETWORK ELEMENTS?

1	A.	The Act defines a network element as a facility or equipment used in the provision
2		of a telecommunications service, including features, functions, and capabilities that
3		are provided by means of such facility or equipment. Network element costs
4		therefore may include both recurring and non-recurring costs, for various
5		configurations and capabilities. The provision of physical collocation, virtual
6		collocation, poles, ducts, conduits, and rights-of-way may involve some or all of
7		these same costs.
8	Q.	HAS AT&T REQUESTED THAT BELLSOUTH PROVIDE UNBUNDLED
9		ACCESS TO NETWORK ELEMENTS?
10	A.	Yes. AT&T has requested access to the following 12 network elements:
11		1. Network Interface Device
12		2. Loop Distribution
13		3. Loop Concentrator/Multiplexer
14		4. Loop Feeder
15		5. Local Switching
16		6. Operator Systems
17		7. Dedicated Transport
18		8. Common Transport
19		9. Tandem switching
20		10. Signaling Link Transport
21		11. Signal Transfer Points
22		12. Service Control Points/Databases
23		The prices for all twelve requested network elements remain in dispute.
24	Q.	DOES THE ACT SPECIFY HOW INTERCONNECTION; NETWORK
25		ELEMENTS: COLLOCATION: AND ACCESS TO POLES, CONDUITS.

1		DUCTS, AND RIGHTS OF WAY ARE TO BE PRICED?
2	A.	Yes. The Act specifies that just and reasonable rates for the interconnection of
3		facilities and network elements shall be based on the cost (determined without
4		reference to a rate-of-return or other rate-based proceeding) of providing the
5		interconnection or network element and may include a reasonable profit.
6		The Act further requires that compensation for transport and termination of traffic
7		reflect costs that are a reasonable approximation of the "additional costs" of
8		terminating such calls. In this regard, the Act does not preclude recovery through
9		offsetting reciprocal obligations, including bill-and-keep arrangements.
0		The Act specifies that collocation rates, terms, and conditions must be just,
1		reasonable, and non-discriminatory.
12		The Act also requires that the Commission consider, in its regulation of the rates,
13		terms, and conditions for attachments to poles, ducts, conduits, and rights of way,
14		the interests of the subscribers of the services offered via such attachments, as wel
15		as the interests of the consumers of the utility.
16	Q.	HOW SHOULD PRICES FOR SERVICES PROVIDED TO NEW MARKET
17		ENTRANTS BE DETERMINED?
8	A.	As discussed in the testimonies of Dr. Kaserman and Joe Gillan, prices for each of
19		these capabilities should be set equal to direct economic cost, measured by total
20		service long run incremental cost studies (TSLRIC).
21	Q.	HAS BELLSOUTH OFFERED TO PROVIDE NETWORK ELEMENTS TO
22		AT&T AT RATES EQUAL TO BELLSOUTH'S TSLRIC?
23	A.	No. At AT&T's urging BellSouth presented AT&T an initial price proposal for
24		selected network elements and network interconnection on May 7, 1996, and
25		undated that proposal on June 13, 1996. However, the rates contained in both

1		proposals were, in large part, drawn from BellSouth's various tariffs.
2	Q.	DID BELLSOUTH ATTEMPT TO DEMONSTRATE THAT THE TARIFFED
3		RATES PROPOSED BY THE COMPANY WERE BASED ON COSTS OF
4		ANY SORT?
5	A.	No. Moreover, it would be impossible for BellSouth to do so, given that tariff rates
6		contain elements and mark-ups not appropriately recovered from the Company's
7		network element and local interconnection offerings. Retail rates contain marketing,
8		advertising, and customer services costs entirely inappropriate for wholesale
9		services, and existing wholesale rates contain mark-ups not consistent with cost-
0		based pricing.
1	Q.	WHAT WAS AT&T'S RESPONSE TO BELLSOUTH'S INITIAL PRICE
2		PROPOSAL?
3	A.	Upon receiving BellSouth's initial proposal, AT&T decided that it was unlikely that
4		BellSouth would make a cost-based proposal to AT&T during the negotiations, and
5		that AT&T would need to put its own cost-based counter-proposal on the
6		negotiating table.
7		Recognizing that BellSouth had already conducted forward-looking incremental cost
8		studies for many of the relevant network elements, AT&T intensified its efforts to
9		obtain those studies and other cost data, with the objective of developing a cost-
0.		based price proposal for interconnection for each of the various network elements
21		requested by AT&T, and for collocation, poles, ducts, conduits, and rights-of-way.
22		On May 8, 1996, AT&T filed for mediation in Tennessee, seeking more complete
23		responses to its initial April 4, 1996 cost request to BellSouth. AT&T also requested
24		additional BellSouth cost data on June 5, 19, and 26, 1996. There were also several
25		discussions and letters between AT&T and BellSouth employees regarding AT&T's

need for cost information and BellSouth's willingness (or hesitancy) to provide the requested data.

Q. DID BELLSOUTH PROVIDE THE REQUESTED COST INFORMATION?

A.

A. Not entirely. BellSouth did provide various cost summaries and some underlying detail to AT&T. However, much of the information provided by BellSouth is not adequately documented and/or not specific to individual interconnection arrangements and network elements. Moreover, BellSouth has generally represented its data as being LRIC data, requiring AT&T to analyze the extent to which the studies provide reasonable measures of TSLRIC. Finally, AT&T has not yet been successful in obtaining and analyzing studies and back-up material needed to either fully validate or refute BellSouth's stated costs.

Q. WHAT ARE THE DIFFERENCES BETWEEN TSLRIC COSTS AND LRIC?

There are often no differences between LRIC and TSLRIC costs in actual practice, but in a theoretical sense there can be differences due to the service increment analyzed in the study. TSLRIC determines incremental unit costs to reflect the average cost of production considering entire product demand. On the other hand, LRIC determines only the incremental unit cost of an additional increment of service. The LRIC for additional units could be higher or lower than TSLRIC depending upon the trend of future costs. If costs for additional units are declining, as is generally accepted to be the case for telecommunications services, LRIC costs for the additional units is lower than TSLRIC. Such differences between TSLRIC and LRIC disappear, however, if the studied demand increment for the LRIC study is full service demand (making it in fact a TSLRIC study). Differences also disappear if the LRIC increment is great enough to capture essentially all relevant costs, or the LRIC study procedure is not sufficiently refined to reflect incremental

1		economies/dis-economies of scale or differences in the mix of incremental and full
2		service inputs.
3		Differences between LRIC and TSLRIC can also be expected to disappear when a
4		specific study is prepared as support for prices charged competitors. While
5		BellSouth has an interest in obtaining lower LRIC results for retail services by
6		studying small demand increments, BellSouth should have no interest in
7		understating network element costs.
8	Q.	WERE YOU ABLE TO DETERMINE THAT BELLSOUTH'S STUDIES
9		ACTUALLY REFLECT TSLRIC?
.0	A.	Yes. I found that most of the BellSouth LRIC results provided to AT&T were
1		designed to produce TSLRIC results. This outcome occurred because the BellSouth
2		LRIC studies presented to AT&T generally included service increments great
13		enough to reflect TSLRIC results, or otherwise used inputs and methodologies
4		designed to capture all costs of providing a service. That is not to say, however, that
5		BellSouth's studies contained the most accurate or appropriate methodologies for
16		obtaining TSLRIC costs.
17	Q.	DO YOU HAVE ANY FURTHER SUPPORT FOR YOUR CONCLUSION
8		THAT THE BELLSOUTH COST DATA PROVIDED TO AT&T REFLECT
19		BELLSOUTH'S ESTIMATE OF TSLRIC COSTS?
20	A.	Yes. BellSouth submitted studies to the Louisiana Commission on June 25, 1996 in
21		response to a Commission order requiring the Company to produce both TSLRIC
22		and LRIC network element costs. In documentation accompanying the studies,
23		BellSouth noted that there were no differences between TSLRIC and LRIC costs for
24		loops, switching, and transport, which in combination represent the bulk of
25		BellSouth's network elements. Moreover, BellSouth noted only insignificant

differences for the majority of remaining elements.

2 <u>AT&T'S ANALYSIS OF BELLSOUTH COST STUDIES</u>

3 Q. DESCRIBE HOW YOU ANALYZED THE BELLSOUTH COST STUDIES

4 THAT AT&T RECEIVED.

A.

A.

AT&T first reviewed BellSouth's individual incremental cost studies to assure that the study reflected least cost and forward-looking technology and operating methods. We then reviewed the study to determine if the included investments and costs were properly calculated. We checked to determine that appropriate costs were included, and that inappropriate costs were excluded. And, importantly, we attempted to determine the exact capabilities included in each cost element. Where we identified significant problems with study methodologies, calculations, or inputs, we sought data from BellSouth to make appropriate adjustments. Where we were unable to check the validity of BellSouth's study due to insufficient documentation we sought additional documentation. We weighed the total impact of other discrepancies, and discounted offsetting discrepancies where appropriate.

Q. WERE YOU ABLE IN ALL CASES TO RESOLVE CONCERNS WITH BELLSOUTH'S STUDIES AND TO ARRIVE AT AN ACCEPTABLE COST ESTIMATE?

No, not in all cases. However, we were able to validate several individual BellSouth studies within reasonable limits, and were able to validate other BellSouth cost estimates conditioned upon the acceptance of additional BellSouth documentation. In the following sections of my testimony, I describe AT&T's findings as a result of our analysis, and make either concrete or conditional price proposals. I will update those proposals prior to hearing based on further review and any additional documentation and information provided by BellSouth.

1	I.	UNBUNDLED NETWORK ELEMENTS
2	Q.	WHAT COST DATA HAS BELLSOUTH PROVIDED AT&T REGARDING
3		2-WIRE LOOPS?
4	A.	BellSouth provided AT&T an initial incremental cost study of 2-wire loopii costs on
5		April 26 and, in response to an AT&T request, provided additional study
6		documentation on May 24. On June 18, BellSouth provided AT&T the 2-wire loop
7		study it had submitted to the PSC in response to Florida Public Service Commission
8		Order No. PSC-96-0444-FOF-TP. This later study package also included
9		BellSouth's cost estimates for certain 4-wire loops, 2-wire ISDN loops, and DS1
10		digital grade loops. BellSouth also has provided AT&T similar 2-wire loop studies
11		for other BellSouth jurisdictions.
12	Q.	HAVE THESE STUDIES ALLOWED AT&T TO CALCULATE
13		BELLSOUTH'S 2-WIRE LOOP COSTS?
14	A.	Yes. Although neither the initial nor subsequent loop studies provided by BellSouth
15		reflect least-cost, forward-looking loop technologies, and could not therefore be

- 14 A. Yes. Although neither the initial nor subsequent loop studies provided by BellSouth
 15 reflect least-cost, forward-looking loop technologies, and could not therefore be
 16 taken at face value, BellSouth did include information in back-up documents and
 17 supplemental data responses regarding efficient, forward-looking costs. AT&T used
 18 that information to calculate appropriate loop cost.
- 19 Q. PLEASE EXPLAIN.
- 20 A. BellSouth's 2-wire loop study results assume that the least cost, forward-looking
 21 configuration for providing 2-wire loops consists entirely of metallic loop facilities
 22 for customers within 12,000 feet of the customer's wire center, and loops provided
 23 over digital loop carrier for all other customers. This assumption is somewhat
 24 reasonable if properly applied, and if appropriate costs are considered for each
 25 technology.

BellSouth included inappropriate costs, however, by assuming that those loops provided over digital loop carrier would be converted to analogiii format at the wire center. Adding analog conversion cost is inappropriate because analog conversion does not represent the least-cost, forward-looking technology for providing loops, or BellSouth's actual provisioning plans. BellSouth stated during negotiations that the use of existing digital loop carrier systems requiring analog conversion is declining. BellSouth further indicated that only a small percentage of its loops use systems requiring analog conversion today, while a greater percentage use growing digital loop technologies that require no such conversion. Loop cost estimates based upon the use of digital loop carrier systems requiring analog conversion, therefore, cannot possibly represent the least cost, forward-looking technology for providing loops. Including this conversion cost inappropriately increases BellSouth's calculated loop costs. WHAT IMPACT DOES INCLUSION OF ANALOG CONVERSION HAVE Q. ON 2-WIRE LOOP COSTS? Data included in the BellSouth studies provided to AT&T indicate that analog A. conversion costs significantly increase both the monthly cost of loops provided over digital loop carrier, and BellSouth's composite loop cost, reflecting a mix of both copper and digital carrier loops. This data was included in the back-up information provided to AT&T, evidently because BellSouth also performs studies of loop costs using this forward-looking, least-cost technology. AT&T was able to estimate the cost impact of analog conversion before it made its price offer, but AT&T has requested BellSouth's other loop studies so that it can verify its results. WHY WOULD BELLSOUTH INCLUDE ANALOG CONVERSION COSTS Q. IN THE COST STUDIES PROVIDED TO AT&T?

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1	A.	BellSouth may have done so due to its position that it will not provide unbundled
2		loops over digital loop carrier without analog conversion. If so, BellSouth's
3		position is untenable. First, BellSouth must allow the connection of its unbundled
4		loops to BellSouth's unbundled switching element, and the loops that BellSouth
5		provides in those instances will actually utilize the same forward-looking
6		technologies (without the required analog conversion) BellSouth uses for its own
7		customers. Secondly, even if BellSouth prevailed in its decision to deny new
8		entrants the more efficient loop technology, the result would be that new entrants
9		would be limited primarily to the use of metallic loops, not the preponderance of old
10		digital technology loops that BellSouth reflects in its cost result presented to AT&T.
11		In this second case, the average cost of loops actually provided to new entrants
12		would be even less than BellSouth's efficient composite price.
13		Finally, if BellSouth decides to serve these new entrants using more expensive
14		technology, it should not be allowed to pass those inefficient costs along. By
15		permitting BellSouth to do so, the Commission would simply be allowing BellSouth
16		to artificially inflate the prices charged to new entrants, thus impeding the
17		development of competition in the local service market.
18	Q.	DID AT&T IDENTIFY OTHER PROBLEMS WITH BELLSOUTH'S 2-
19		WIRE LOOP STUDIES?
20	A.	Yes. The initial BellSouth study presented to AT&T appears to also overstate unit
21		investment costs for the digital loop carrier components actually used. These
22		unexplained additional investments add to the overstatement of costs resulting from
23		use of incorrect technology.
24		In addition, BellSouth's original and revised 2-wire loop studies include return on
25		equity assumptions of up to 17 or 18%. Equity returns this high are not reasonable

1		for monopoly network elements and produce greatly inflated cost estimates. AT&T
2		has multiplied BellSouth's adjusted recurring cost figures by a factor of 85% to
3		produce a more reasonable equity return of approximately 11.5%. Calculations
4		supporting the 85% adjustment factor are included on Exhibit WE-3.
5	Q.	INCLUDING THE THREE NECESSARY ADJUSTMENTS YOU DESCRIBE,
6		WHAT IS YOUR ESTIMATE OF FORWARD-LOOKING 2-WIRE LOOP
7		COST?
8	A.	AT&T's calculation of 2-wire loop cost is shown on Exhibit WE-4.
9	Q.	WHAT INFORMATION HAS BELLSOUTH PROVIDED REGARDING
0		COSTS OF OTHER TYPES OF LOOPS?
1	A.	AT&T's primary information source for costs of other BellSouth loops was the
2		BellSouth study submitted to the Commission in response to Florida Public Service
3		Commission Order No. PSC-96-0444-FOF-TP. In addition to 2-wire loop costs, this
4		package included BellSouth's cost estimates for certain 4-wire loops, 2-wire ISDN
5		loops, and DS1 digital grade loops. Unfortunately, the package provided AT&T
6		(and possibly the Commission) did not include information sufficient to audit
7		BellSouth's results or to make adjustments in the event BellSouth's calculations
8		were found to be faulty.
9	Q.	GIVEN THE SCARCITY OF DOCUMENTATION FOR THESE OTHER
20		LOOP COSTS, HOW DID AT&T ARRIVE AT ESTIMATED BELLSOUTH
21		COSTS?
22	A.	AT&T accepted BellSouth's stated ratio of costs for 4-wire versus 2-wire loops
23		contained in the unbundled studies provided to the Commission. AT&T then
24		calculated BellSouth's adjusted 4-wire loop cost by applying this ratio to AT&T's
25		previously calculated 2-wire loop cost.

AT&T next calculated DS1 loop costs by accepting BellSouth's DSI loop cost,
adjusted to reflect a more appropriate cost of money. The cost of money
adjustment was made utilizing the 85% factor described for 2-wire loops.
BellSouth's Basic Rate ISDN (BRI ISDN) loop studies raised questions that AT&T
could not reconcile, given the absence of cost support documentation. The
documentation included with the BellSouth study given the Commission does not
precisely define BellSouth's assumptions regarding the least-cost, forward looking
technology for BRI ISDN loops (or, for that matter, other included loops).
BellSouth's brief description indicates that the assumed least cost technology for
BRI ISDN loops is fiber for feeder and metallic for distribution. BellSouth
representatives stated in negotiations, however, that such is not the case, and that the
assumptions used for BRI ISDN loops and other revised study loops are the same as
those used in the Company's prior studies (i.e., digital carrier beyond 12,000 feet).
BellSouth's insufficient documentation raises questions regarding the use of the
most efficient technologies, given that the economic break-point for using digital
loop carrier instead of copper loops appears to be quite different for POTS and
ISDN loops. Moreover, BellSouth ISDN studies are flawed because they reflect the
same inefficient analog conversion included in BellSouth's 2 and 4-wire studies, and
once again overstate cost of money requirements.
For all these reasons AT&T rejected BellSouth's BRI ISDN loop studies. The
Commission should also reject these studies and require BellSouth to provide
revised results using documented least-cost, forward-looking technology and
reasonable cost of money assumptions. Until the new studies are completed, the
Commission should set the BRI ISDN unbundled loop rate equal to the rate for 2-
wire loops. This is a reasonable alternative, given that the majority of BRI ISDN

nost likely
loops are in fact provisioned using 2-wire POTS loops.

A.

Q. WAS AT&T ABLE TO DETERMINE BELLSOUTH'S NON-RECURRING

3 COSTS RELATED TO THE PROVISIONING OF LOOPS?

No. Although BellSouth provided non-recurring cost estimates, the BellSouth A. studies assume that unbundled elements will be ordered on an individual, stand-alone basis. This approach is not consistent with the manner in which unbundled elements are likely to be purchased. The Commission should therefore determine those network elements BellSouth must provide and, thereafter, require BellSouth to submit new non-recurring cost estimates structured to reflect the various single element and combination element ordering and provisioning processes actually required.

Q. DID BELLSOUTH PROVIDE AT&T WITH COST INFORMATION AT THE

SUB-LOOP LEVEL?

No. Although AT&T requested that BellSouth provide the customer network interface device, loop distribution, loop concentrator/multiplexer functions, and loop feeder as separate unbundled network element offerings, the various cost studies provided by BellSouth included no break-down of costs for these individual loop components. Following receipt of the original loop studies, AT&T inquired as to whether data were available from BellSouth to separate the Company's loop costs into the four sub-loop elements. BellSouth representatives responded that a break-down was not possible because underlying sample data did not include sufficient information. In fact, BellSouth loop studies presented to the Public Service Commission actually account for distribution and feeder costs separately and could easily be partitioned to identify multiplexer/concentrator costs. Thus, if sub-loop element costs were not available before, they are now, and the Commission should

1		require Bensouth to produce such studies.
2	Q.	WOULD THE DISAGGREGATION YOU DESCRIBE ABOVE IDENTIFY
3		BELLSOUTH'S COST FOR THE NETWORK INTERFACE DEVICE (NID)
4		AT&T SEEKS TO PURCHASE?
5	A.	Disaggregating the NID from other loop components should be one objective for the
6		disaggregated loop study, and BellSouth can easily calculate the cost of a NID. In
7		the alternative, the Commission should set the rate for the NID at AT&T's estimate
8		of cost, which AT&T calculates at \$19 per month, based on an installed cost for the
9		NHD of no more than \$15.00, and annual carrying charges of 15%. Due to the small
10		resulting charge it may be more efficient to convert this rate to a one-time charge.
11	Q.	WHAT COST DATA HAS BELLSOUTH PROVIDED REGARDING COSTS
12		FOR THE LOCAL SWITCHING ELEMENT?
13	A.	BellSouth provided AT&T an initial study of unbundled local switching costs for
14		voice services on April 26 and, on June 18, provided AT&T the voice local
15		switching cost package the Company had submitted to the Commission (in response
16		to Florida Public Service Commission Order No. PSC-96-0444-FOF-TP).
17	Q.	DID THESE BELLSOUTH STUDIES ALLOW AT&T TO DETERMINE
18		BELLSOUTH'S LOCAL SWITCHING COSTS?
19	A.	The studies have allowed AT&T to determine BellSouth's costs for providing local
20		voice switching services. However, no data has been provided to date that would
21		allow AT&T to determine costs for BellSouth's data switching elements.
22	Q.	WHICH DATA SWITCHING ELEMENTS IS AT&T SEEKING TO
23		PURCHASE?
24	A.	AT&T has requested circuit-switched and ISDN packet data switching capability
25		between industry standard ISDN interfaces, Frame Relay functionality, and ATM

I		functionality.
2	Q.	REGARDING VOICE SWITCHING, WHAT WAS THE OUTCOME OF
3		AT&T'S REVIEW OF STATED BELLSOUTH COSTS?
4	A.	The initial studies provided by BellSouth divided BellSouth's basic voice switching
5		costs into two components: line termination costs and usage-related costs. AT&T
6		has determined that BellSouth's cost estimates for both elements appear reasonable
7		for voice services, but BellSouth has not provided sufficient supporting
8		documentation to allow AT&T to make an absolute determination. AT&T has
9		therefore sought additional information from BellSouth to verify our conclusion. At
0		the same time, AT&T has accepted BellSouth's calculated costs for the purpose of
1		negotiations, adjusted only for the previously described 85% cost of money factor.
2		It has been necessary for AT&T to interpret and restructure BellSouth's cost
3		estimates to obtain unbundled costs for the local switch as a stand-alone unbundled
4		element. This step has been necessary because BellSouth aggregated its study
5		results to include both local switch costs and costs associated with the separate
6		transport element. AT&T's adjustments to arrive at unbundled local switching costs
7		are included in Exhibit WE V.
8		AT&T has not been able to verify BellSouth's ISDN line termination costs, as the
9		ISDN cost estimates have not been accompanied by either back-up calculations or
20		documentation. Until such information is received, the rate recommended by AT&T
21		should be considered as tentative and subject to significant adjustment.
22	Q.	IS THE ORIGINAL BELLSOUTH LOCAL SWITCHING STUDY
23		PROVIDED TO AT&T CONSISTENT WITH THE STUDY LATER
24		PROVIDED BY BELLSOUTH TO THE COMMISSION?
>5	A	No. The two studies are significantly different with respect to one major cost item

1		The original studies provided to AT&T determined that local switching costs for
2		billing, business office, and operator services were negligible, as would be expected
3		for unbundled elements. However, the studies provided to the Commission include
4		a large additional and unexplained cost for these functions. I know of no additional
5		costs of the magnitude of BellSouth's addition that should be included in its
6		unbundled studies, and the Commission should require BellSouth to justify this large
7		additional expense or remove it from BellSouth's calculated costs. In this regard,
8		AT&T has requested supporting data for BellSouth's cost additions, and will make
9		specific additional recommendations to the Commission after receipt and review of
10		such data.
11	Q.	WHAT DATA HAS BELLSOUTH PROVIDED AT&T REGARDING
12		OPERATOR SERVICES SYSTEMS COSTS?
13	A.	BellSouth provided AT&T an initial cost study of operator function costs on May
14		21, 1996. BellSouth has not provided AT&T cost studies for directory assistance,
15		directory assistance call completion, and intercept element capabilities for Florida,
16		but it has provided such information for Louisiana. To date, BellSouth has not
17		provided AT&T cost studies for its busy line verification, emergency interrupt, and
18		emergency call trace functions for any state.
19	Q.	HAVE THE STUDIES PROVIDED BY BELLSOUTH ALLOWED AT&T TO
20		DETERMINE BELLSOUTH'S UNBUNDLED OPERATOR SYSTEMS
21		ELEMENT COSTS?
22	A.	Yes. With the exception of the noted outstanding studies, the studies provided by
23		BellSouth included operator cost estimates which AT&T believes to be a somewhat
24		reasonable estimate of forward-looking costs. However, because little supporting
25		documentation was provided with the studies, AT&T adjusted BellSouth's costs

1		downward by a factor of 10% to reflect the possibility of inappropriate cost loadings
2		in AT&T's initial price proposal and requested additional supporting data. When
3		AT&T has completed its review of the requested data it will be able to make a
4		conclusive cost recommendation to the Commission.
5	Q.	WHAT DATA HAS BELLSOUTH PROVIDED AT&T REGARDING
6		COMMON AND DEDICATED TRANSPORT COSTS?
7	A.	BellSouth provided AT&T an initial unbundled element study including common
8		transport costs on April 26, 1996, and FGA and FGD (Feature Group A and Feature
9		Group D) studies and local transport restructure studies on May 21. BellSouth has
0		also provided AT&T similar data for other states and, just recently, provided AT&T
1		local transport unbundled element studies required by the Louisiana Commission.
12	Q.	HAVE THESE BELLSOUTH STUDIES ALLOWED AT&T TO
13		DETERMINE BELLSOUTH'S COMMON AND DEDICATED TRANSPORT
14		COSTS?
15	A.	The data provided by BellSouth has enabled AT&T to calculate most common and
16		dedicated transport costs. The initial common transport studies provided by
17		BellSouth included a calculation of common transport costs which AT&T
18		determined to be reasonable, subject only to cost of money adjustments. AT&T has
19		made this adjustment through the previously described 85% adjustment factor.
20		AT&T has also found BellSouth's dedicated transport estimate to be reasonable, but
21		with limitations for pricing purposes. The primary limitations relate to the way in
22		which BellSouth's Florida study bundles various elements as part of "typical"
23		configurations that should actually be priced and offered separately. As a result,
24		AT&T made BellSouth an original offer based on the bundled configurations, but
25		was unable to develop an unbundled proposal until receipt of BellSouth's Louisiana

1		studies. The dedicated transport rates I recommend in my testimony are in fact
2		based on those Louisiana studies. To the extent BellSouth can demonstrate different
3		costs in Florida, it should be allowed to do so.
4		There are other transport features, functions, and capabilities that remain to be
5		priced. These include real time access and reconfiguration capabilities on
6		BellSouth's digital cross-connect systems, and costs for use of entire transport
7		systems. The Commission should order BellSouth to produce these studies.
8	Q.	WHAT COST STUDIES HAS BELLSOUTH PROVIDED AT&T
9		REGARDING COSTS OF TANDEM SWITCHING?
10	A.	BellSouth provided AT&T an initial unbundled element study that included tandem
11		switching costs on April 26, 1996. BellSouth also provided a tandem switching cost
12		estimate in its FGA and FGD studies and local transport restructure studies provided
13		on May 21. Finally, BellSouth has provided AT&T similar data for other states.
14	Q.	HAVE THESE BELLSOUTH STUDIES ALLOWED AT&T TO
15		DETERMINE BELLSOUTH'S TANDEM SWITCHING COSTS?
16	A.	Yes. The studies provided by BellSouth provide a calculation of tandem switching
17		costs which AT&T believes to be reasonable.
18	Q.	WHAT DATA HAS BELLSOUTH PROVIDED AT&T REGARDING
19		SIGNALING LINK TRANSPORT COSTS?
20	A.	BellSouth provided AT&T an initial unbundled element study reflecting signaling
21		link transport costs on May 21. BellSouth has also provided AT&T similar data for
22		other states.
23	Q.	HAVE THESE BELLSOUTH STUDIES ALLOWED AT&T TO
24		DETERMINE BELLSOUTH'S SIGNALING LINK TRANSPORT COSTS?
25	A.	Yes. The studies provided by BellSouth provide a calculation of signaling link

1		transport costs which AT&T believes to be reasonable. The only necessary
2		adjustments to these costs are reductions to cost of money requirements, which
3		AT&T has performed through the previously described 85% adjustment factor.
4	Q.	WHAT DATA HAS BELLSOUTH PROVIDED AT&T REGARDING
5		SIGNAL TRANSFER POINT COSTS?
6	A.	BellSouth provided AT&T an initial unbundled element study reflecting signal
7		transfer point (STP) costs on May 21.
8	Q.	HAVE THESE BELLSOUTH STUDIES ALLOWED AT&T TO
9		DETERMINE BELLSOUTH'S COSTS FOR SIGNAL TRANSFER POINTS?
10	A.	Yes. The studies provided by BellSouth provide a calculation of STP and common
11		signaling link costs which AT&T has determined to be reasonable. Again, AT&T
12		adjusted BellSouth's cost of money through the previously described 85%
13		adjustment factor.
14	Q.	WHAT COST DATA HAS BELLSOUTH PROVIDED REGARDING
15		BELLSOUTH COSTS FOR PROVIDING SERVICE CONTROL
16		POINT/DATABASE (SCP) CAPABILITIES?
17	A.	BellSouth provided AT&T an initial unbundled element study reflecting costs for it
18		Line Information Database (LIDB) on May 21. While BellSouth has not provided
19		similar studies for BellSouth's 800 portability database in Florida, it has provided a
20		cost study for this function to the Louisiana Commission.
21	Q.	HAVE THESE BELLSOUTH STUDIES ALLOWED AT&T TO
22		DETERMINE BELLSOUTH'S COSTS FOR NECESSARY SCP
23		CAPABILITIES?
24	A.	The studies provided by BellSouth have permitted AT&T to determine costs for
25		BellSouth's LIDB and toll-free number databases. However, BellSouth has not

1		provided data for SCE/SMS AIN access.
2	Q.	HAVE YOU PREPARED AN EXHIBIT REFLECTING THE BELLSOUTH
3		COST STUDY RESULTS YOU HAVE DESCRIBED AND YOUR
4		ADJUSTMENTS TO THOSE COSTS?
5	A.	Yes. Attached Exhibit WE-1 documents the BellSouth sources from which AT&T's
6		cost estimates were obtained, BellSouth's stated costs, AT&T's adjustments to
7		BellSouth's stated costs, and the resulting AT&T estimate of TSLRIC costs. I
8		should note that the corrected costs are likely to exceed TSLRIC because AT&T
9		adjusted the BellSouth cost studies only for the most obvious departures from
10		efficient least cost practices. The BellSouth cost studies most likely reflect other
11		departures from efficient, least-cost practices, the correction of which would lead to
12		lower cost results. The BellSouth cost studies, even as corrected, do not represent
13		perfect measures of TSLRIC. Rather, BellSouth's studies (as corrected) provide
14		reasonable estimates under circumstances that AT&T is willing to accept in this
15		arbitration.
16	Q.	HAS AT&T PRESENTED A PRICE PROPOSAL TO BELLSOUTH?
17	A.	Yes. AT&T submitted a price proposal for those network elements for which
18		AT&T was able to estimate costs on June 21, 1996. At the same time, and in the
19		same proposal, AT&T requested BellSouth to provide a price proposal and
20		supporting cost studies for the various other elements for which BellSouth had not
21		provided an adequate cost estimate.
22	Q.	DO THE PRICES AT&T PROPOSED ON JUNE 21, 1996, EQUAL AT&T'S
23		ESTIMATE OF BELLSOUTH TSLRIC IN ALL CASES?
24	A.	No. The June 21, 1996, AT&T proposal for individual rate components may deviate
25		from AT&T's estimate of BellSouth's costs for any of three reasons. First, AT&T's

1		included estimate of costs on Exhibit I reflects our latest view of BellSouth costs,
2		which has been refined in a few instances by receipt of supplemental BellSouth data.
3		The AT&T price proposal also deviated from calculated costs in those instances
4		where BellSouth documentation was insufficient, and AT&T felt uneasy about
5		BellSouth's stated costs. In such cases AT&T's initial proposal was conservative.
6		Finally, some of the rates in AT&T's initial proposal were based on Company-wide
7		costs and proposed as a Company-wide rate. The costs in Exhibit WE I reflect
8		Florida costs, which may be different from the BellSouth average.
9	Q.	WHAT ACTION SHOULD THE COMMISSION TAKE WITH RESPECT TO
0		EXHIBIT WE I?
11	A.	The Commission should implement the rates recommended by AT&T.
12	Q.	DOES EXHIBIT WE I LIST ALL UNBUNDLED ELEMENTS REQUESTED
13		BY AT&T?
14	A.	No. Exhibit WE I includes only those network elements for which AT&T has been
15		able to develop cost estimates. Attached Exhibit WE II lists several additional
16		unbundled elements, functions, and capabilities for which BellSouth has provided
17		neither a price proposal nor adequate cost support. The exhibit also lists collocation
18		and access to poles, conduits, ducts, and rights-of-way, for which no costs have been
19		provided. The Commission should require BellSouth to produce TSLRIC studies
20		for these additional capabilities and, following opportunity for review, require
21		BellSouth to provide such capabilities at TSLRIC cost. The Commission should
22		also require that BellSouth provide the additional elements required by AT&T in the
23		future at TSLRIC.
24	Q.	CAN YOU COMPARE AT&T'S PRICE PROPOSAL TO THE PROPOSAL
25		OF BELLSOUTH IN TERMS OF AT&T'S ABILITY TO COMPETE AS A

1		NEW ENTRANT IN THE LOCAL SERVICE MARKET:
2	A.	Yes. Under BellSouth's initial proposal AT&T would incur unbundled element
3		charges amounting a total of more than \$34.00 to provide local residential service,
4		should AT&T provide such service entirely over BellSouth unbundled elements.
5		Consider that BellSouth offers residential customers full local service, with all the
6		vertical features the customer chooses, for a flat rate of \$26.00 per month. AT&T
7		proposes to pay BellSouth approximately \$15.00 for the underlying network
8		elements to provide local service, to which it must add its own provisioning and
9		service costs.
0	Q.	IS YOUR ESTIMATE OF BELLSOUTH'S NETWORK ELEMENT COSTS
1		SUPPORTED BY OTHER AVAILABLE DATA?
2	A.	Yes. BellSouth filed a cost study summary with the Kentucky Public Service
3		Commission on September 28, 1995, stating that the cost of an additional retail
14		residential service line in that state with average vertical features was \$14.03 per
15		month, including basic service costs of \$13.44 and vertical service costs of \$.69.
16		This BellSouth cost estimate should include both network element and retail
17		function costs, yet is actually lower than the charges AT&T proposes to pay for only
18		the underlying unbundled elements in Florida.
19	Q.	WHAT OTHER NETWORK ELEMENT PRICING ACTIONS SHOULD TH
20		COMMISSION TAKE AT THIS TIME?
21	A.	The Commission should direct BellSouth to conduct disaggregated loop studies to
22		determine the cost of providing unbundled loops in various density zones, and to
23		thereafter deaverage the statewide loop rate approved in this proceeding. Various
24		studies and analyses indicate that the average loop cost in high density areas may be
25		as much as 25% or more less than the state average rate, while loop costs in rural

1		areas are substantially higher. Absent de-averaged rates, BellSouth could use its
2		cost advantage to block competition in those urban areas where competition could
3		otherwise incubate, and simultaneously delay the spread of competition to suburban
4		and rural areas.
5	Q.	WHAT PRICE HAS AT&T OFFERED BELLSOUTH FOR
6		INTERCONNECTION?
7	A.	AT&T proposed to BellSouth that prices be set at TSLRIC. Because BellSouth has
8		not provided adequate TSLRIC studies, AT&T also proposed to BellSouth the
9		interim use of a "bill and keep" system for transport and termination of traffic, as
10		provided for by the Act.
I 1	Q.	WHAT IS BELLSOUTH'S POSITION REGARDING INTERCONNECTION
12		PRICES?
13	A.	BellSouth has proposed tariffed access rates for interconnection. As I have
14		previously discussed, tariffed rates do not reflect economic costs and, therefore, are
15		improper under the Act.
16	Q.	WHAT SHOULD THIS COMMISSION DO REGARDING
17		INTERCONNECTION PRICES?
18	A.	The Commission should order that interconnection be priced at TSLRIC and that
19		BellSouth develop TSLRIC studies as promptly as possible. The indicated studies
20		could quickly be produced by using existing network element studies. Until such
21		studies are completed, this Commission should require a bill and keep arrangement
22		for interconnection.
23	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
24	A.	Yes.

ⁱ As Dr. Kaserman explains in his testimony, long-run incremental cost (LRIC) and total service long-run incremental cost (TSLRIC) both measure the change in the firm's total costs caused by a change in output. In that sense, they are very similar conceptually. The only difference between them is the magnitude of the change in output contemplated. For TSLRIC, the change is the entire output of the service. And for LRIC, the change is finite but may be less than the entire output. ⁱⁱI use the term "loop" here to describe a complete transmission path from the customer's premises to the customer's serving wire center. It includes all sub-loop elements, including the Network Interface Device at the customer's premises, the customer's drop, loop distribution plant, loop multiplexer/concentrator equipment, and loop feeder plant.

iii An analog interface at the local switch delivers voice, data, and signaling information transmitted from the customer in analog format. Information transmitted

to the customer must also be input to the loop interface in analog format.

1		SUPPLEMENTAL DIRECT TESTIMONY OF
2		WAYNE ELLISON
3		ON BEHALF OF AT&T COMMUNICATIONS
4		OF THE SOUTHERN STATES, INC.
5		BEFORE THE
6		FLORIDA PUBLIC SERVICE COMMISSION
7		Docket No. 960833-TP
8		Filed: August 23, 1996
9		
10		
11	Q.	PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TITLE.
12	A.	My name is Wayne Ellison. My business address is 1200 Peachtree Street N.E.,
13		Atlanta, Georgia 30309. I am employed by AT&T as a District Manager in the Law
14		and Government Affairs organization.
15		
16	Q.	DID YOU FILE DIRECT TESTIMONY IN THIS DOCKET?
17	A.	Yes. I filed direct testimony on behalf of AT&T on July 31, 1996.
18		
19	Q.	WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?
20	A.	I discuss the impact of the FCC competition rules, which are found in regulations to
21		be published in the Code of Federal Regulations ("C.F.R.") and the FCC Order, on
22		the following issues before this Commission:
23		1. What should be the compensation mechanism for the exchange of local traffic
24		between AT&T and BellSouth? In my testimony this issue relates to call
25		termination and transport.

1		2. What should be the price of each of the items considered to be network
2		elements, capabilities or functions? In my testimony, this issue relates to
3		unbundled network elements, network interconnection, and methods of
4		obtaining access to unbundled network elements for interconnection purposes
5		Second, I explain why the rates I propose in my direct testimony and in this
6		supplemental testimony should be adopted by this Commission as proxy-based rates,
7		pending completion by BellSouth of cost studies compliant with the standards set by
8		the FCC rules.
9		
10	Q.	HAVE YOU REVIEWED THE FCC LOCAL COMPETITION RULES
11		RELEASED AUGUST 8,1996?
12	A.	I have had an opportunity to review the FCC rules, but given their recent issuance,
13		my review remains ongoing.
14		
15	Q.	IS THE TERMINOLOGY USED IN YOUR DIRECT TESTIMONY
16		CONSISTENT WITH THE FCC ORDER?
17	A.	Yes, with two exceptions. My direct testimony addressed the transport and
18		termination of traffic as part of the "interconnection" function. The FCC makes a
19		distinction in its order between interconnection and the transport and termination of
20		traffic, defining interconnection to include the "physical linking of two networks for
21		the mutual exchange of traffic". Transport and termination of traffic is treated by the
22		FCC as a separate and distinct LEC obligation.
23		The FCC order also introduces the term TELRIC (total element long run incremental
24		cost) to refer to network element TSLRIC studies.

1	Q.	WHAT DO THE FCC RULES GENERALLY REQUIRE WITH RESPECT
2		TO PRICES FOR NETWORK ELEMENTS; NETWORK
3		INTERCONNECTION; CALL TRANSPORT AND TERMINATION AND
4		COLLOCATION?
5	A.	The FCC rules require that the incumbent LEC prove to the state commission that the
6		rates for each element it offers do not exceed the element's forward-looking
7		economic cost per unit. The Rules define such pertinent cost to be equal to the
8		forward-looking economic cost of the element, divided by the sum of (1) the total
9		number of units of the element that the incumbent LEC is likely to provide to
10		requesting telecommunications carriers and (2) the total number of units that the
11		incumbent LEC is likely to use in offering its own services.
12		The FCC regulations define forward-looking economic cost as the total element long-
13		run incremental cost of the element, plus a reasonable allocation of forward-looking
14		common costs. Prices determined in accordance with the above formula must also
15		meet FCC-prescribed rate structure rules, and be deaveraged to reflect geographic
16		cost differences. In this regard, the Rules state that there shall be at least three
17		geographic rate zones.
18		
19	Q.	DO THE RULES PROVIDE DIRECTION REGARDING HOW THE TOTAL
20		ELEMENT LONG-RUN INCREMENTAL COST IS TO BE CALCULATED?
21	A.	Yes. Total element long-run incremental cost is the forward-looking cost over the
22		long run of the total quantity of facilities and functions that are directly attributable
23		to, or reasonably identifiable as incremental to, the studied element, calculated taking
24		as a given the incumbent LEC's provision of other elements. The Rules further
25		specify that such cost shall reflect use of the most efficient telecommunications

technology currently available; reflect the lowest cost network configuration given the
existing location of incumbent wire centers; include forward-looking cost of capital;
and reflect economic depreciation rates.

Q. WHAT DIRECTION IS PROVIDED BY THE ORDER REGARDING THE ASSIGNMENT OF A REASONABLE ALLOCATION OF FORWARD-

7 LOOKING COMMON COSTS?

8 A. The Order states that the LEC's common costs are to be forward-looking economic

costs that shall be allocated among elements and services in a reasonable manner, consistent with the pro-competitive goals of the 1996 Act (Order ¶ 695). The Order thus concludes that either the use of a fixed allocator (e.g., a percentage mark-up over directly attributable forward-looking costs) or the allocation of only a relatively small share of common costs to certain critical network elements is appropriate. The Order prohibits an allocation of common costs in inverse proportion to demand sensitivity. The Rules also require that the sum of a reasonable allocation of forward-looking common costs and the TELRIC of an element not exceed stand-alone costs. The Rules further require that the sum of the allocation of forward-looking common costs for all elements and services equal the total forward-looking common costs, exclusive of retail costs, attributable to operating the incumbent LEC's total network, so as to provide all the elements and services offered.

Q. ARE CERTAIN PRICING ACTIONS PRECLUDED BY THE FCC?

A. Yes. The Rules state that embedded costs, retail costs, opportunity costs, and services subsidies shall not be considered in the calculation of the forward-looking economic cost of an element.

I		
2	Q.	GIVEN THESE VARIOUS REQUIREMENTS IN THE FCC RULES, WHAT
3		COST STUDIES ARE REQUIRED BY THE COMMISSION TO
4		ESTABLISH BELLSOUTH INTERCONNECTION, NETWORK
5		ELEMENT, COLLOCATION, AND TRANSPORT AND TERMINATION
6		RATES?
7	A.	The Commission will need total element long-run incremental cost studies by
8		geographic cost area, performed by BellSouth, using the TELRIC procedures defined
9		by the FCC. If the Commission intends to assign any appreciable portion of common
10		costs to network elements, it will also need studies identifying BellSouth's efficient
11		forward-looking common costs and directly attributable forward-looking costs for all
12		elements and services. The Commission may also need information from BellSouth
13		regarding element stand-alone costs.
14		
15	Q.	WHAT OPTIONS ARE AVAILABLE TO THE COMMISSION IF
16		BELLSOUTH CANNOT IMMEDIATELY PROVIDE THE REQUIRED
17		DATA?
18	A.	The FCC Rules allow the Florida Commission to establish proxy-based rates for the
19		requested elements and capabilities requested by new entrants. These proxy-based
20		rates must fall within an established price range contained in the Rules. Such interim
21		rates must also be revised once the Commission has received and reviewed relevant
22		cost studies, or if the proxy guidelines are changed.
23		
24	Q.	WHAT RATE PROXIES HAS THE FCC ESTABLISHED?
25	A.	The FCC has established maximum rates and, in one instance, minimum rates on a

1	geographically averaged basis. Under the Rules, the geographically deaveraged rates
2	established by the Commission cannot, when weighted together in proportion to
3	relative service quantities, exceed the maximum geographically averaged price
4	contained in the Rules, nor may they be less than the established minimum price.
5	Rate combinations that produce weighted rates falling between the minimum and
6	maximum values are permissible, provided the Commission sets forth a reasonable
7	basis for the rates it selects.
8	Specific proxies for various elements are as follows:
9	Maximum average rates for unbundled local loops, on a statewide weighted basis,
10	shall not be greater than \$13.68 per month.
11	Maximum blended rates for unbundled local switching shall be no greater than
12	0.4 cents per minute. The minimum blended rate shall be no less than 0.2 cents
13	per minute. The blended rate is the sum of flat-rated and usage-sensitive local
14	switching charges, divided by projected average minutes of use.
15	Maximum rates for dedicated transmission links shall be the incumbent's tariffed
16	interstate charges for comparable interstate facilities.
17	Maximum shared transmission facility rates for facilities between tandem
18	switches and end offices shall be the weighted per minute equivalent of DS1 and
19	DS3 interoffice dedicated transmission links that reflects the relative number of
20	DS1 and DS3 circuits used in the tandem to end office links (or a surrogate based
21	on the proportion of copper and fiber facilities in the interoffice network),
22	calculated using a loading factor of 9,000 minutes per month per voice-grade
23	circuit.
24	• Maximum tandem switching rates shall not be greater than 0.15 cents per minute

1		of use.
2		Maximum collocation rates shall be no greater than the effective rates for
3		equivalent services in the interstate tariff. Where interstate collocation services
4		are not equivalent to collocation arrangements approved by the commission, the
5		commission may set rates to approximate the result of a forward-looking
6		economic cost study.
7		• Maximum rates for signaling, call-related databases, and other elements shall be
8		comparable interstate rates, to the extent such rates exist and cost support has
9		been provided pursuant to paragraph C.F.R. 61.49(h).
10		• Maximum rates for other elements and capabilities shall be no greater than a rate
11		based on direct costs plus a reasonable allocation of overhead loadings.
12		
13		SETTING OF PROXY-BASED RATES
14		
15	Q.	HAS BELLSOUTH PROVIDED STUDIES TO AT&T DURING THE
16		NEGOTIATION PROCESS THAT COMPLY WITH THE FCC'S RULES?
17	A.	No. The incremental BellSouth cost studies that have been made available to AT&T
18		do not meet the requirements of the Act, as these studies have not been performed in
19		accordance with the study principles and procedures dictated by the Rules. Nor has
20		BellSouth provided information regarding its efficient forward-looking common costs,
21		directly attributable forward-looking costs, or stand-alone costs. The Commission
21 22		directly attributable forward-looking costs, or stand-alone costs. The Commission will therefore be unable to establish permanent rates based on the BellSouth cost

1	Q.	DO YOU RECOMMEND THAT THE COMMISSION SET PROXY RATES?
2	A.	Yes, given the inadequate currently available cost data provided by BellSouth.
3		
4	Q.	HOW SHOULD THE COMMISSION SET PROXY RATES?
5	A.	If the Commission decides to set proxy rates, the rates must be consistent with any
6		proxy set forth in the Rules. This does not mean, however, that the proxy must equal
7		the maximum amount that the FCC specifies. The proxy may be lower than the
8		maximum, and above any relevant floor, so long as a reasonable basis exists to
9		support the proxy.
10		
11	Q.	DO YOU BELIEVE THAT THE PRICES SET FORTH IN YOUR DIRECT
12		TESTIMONY, AS SUPPLEMENTED BY THIS TESTIMONY, PROVIDE A
13		REASONABLE BASIS FOR INTERIM RATES FOR NETWORK
14		ELEMENT, INTERCONNECTION, COLLOCATION AND TRANSPORT
15		AND TERMINATION PRICING?
16	A.	Based on my calculations, the AT&T price proposal discussed in my previous
17		testimony, as supplemented below, provides a reasonable basis for determining proxy
18		prices because AT&T's proposal, as supplemented, complies with the FCC rule with
19		one possible exception.
20		
21	Q.	HOW DO AT&T'S PROPOSED RATES COMPLY WITH THE FCC RULE?
22	A.	The AT&T proposal meets the requirements of the Rule for rate structures by
23		providing for rates structured consistently with the manner in which costs are
24		incurred, by providing for the recovery of dedicated facility costs through flat-rate
25		charges, by providing for recovery of shared facilities costs through usage-based

	charges that efficiently apportion costs among users, by recovery of recurring costs
	through recurring charges, and by recovery of nonrecurring costs in a manner that
	efficiently allocates costs among requesting telecommunications carriers.
	The AT&T proposal meets the Rule's requirement for geographical rate deaveraging
	by proposing a composite loop rate for BellSouth and proposing that the composite
	rate be deaveraged to reflect geographical cost differences as discussed below.
	The AT&T proposal meets the Rule's requirement to eliminate access charges to
	purchasers of elements that offer telephone exchange or exchange access services.
	The AT&T proposal meets the Order requirement to eliminate the subscriber line
	billing charge (SLC) to either purchasers of local loops or their customers.
	Finally, and importantly, the AT&T proposal meets each of the proxy rate
	requirements contained in the Rules by proposing individual rates within the allowed
	price range, at specific rate levels that reflect BellSouth's estimated costs. The rates
	proposed by AT&T, adjusted for a forward-looking common cost loading as
	discussed below, therefore reflect the best current estimate of the final rate for each
	element expected to result from a review of BellSouth studies compatible with the
•	FCC Rules.
Q.	WHAT IS THE ONE POSSIBLE EXCEPTION TO AT&T'S COMPLIANCE
	WITH THE FCC RULES?
A.	AT&T's prices may not provide for recovery of an appropriate allocation of
	BellSouth's forward-looking common costs. Whether such recovery is in fact
	excluded from AT&T's proposed rates or is overstated in these rates, is yet to be
	determined, as BellSouth has not provided sufficient information to allow full
	validation of the Company's stated costs. It is quite possible that the various rates

1		proposed by AT&T actually allow recovery of common costs or effectively allow
2		recovery of common costs because BellSouth's costs are overstated.
3		
4	Q.	HOW WOULD ADJUSTMENT FOR FORWARD-LOOKING COMMON
5		COSTS IMPACT THE AT&T PRICE PROPOSAL FOR UNBUNDLED
6		ELEMENTS?
7	A.	If AT&T's prices do not reflect common costs, AT&T estimates that forward-looking
8		common cost loadings should add no more than one or two percent to a properly
9		conducted TELRIC study. However, a proxy addition to the BellSouth individual
10		rate element costs provided AT&T will be greater for most rate elements, and will
11		vary among elements depending on the extent to which BellSouth studies have deleted
12		directly attributable expense. AT&T continues to review BellSouth's cost data, and
13		will recommend an appropriate forward-looking common cost adjustment prior to
14		hearings.
15		
16	Q.	IS YOUR CALCULATION OF AT&T'S PROPOSED MELDED LOCAL
17		SWITCHING PRICE BASED ON ACTUAL SERVICE QUANTITIES?
18	A.	No. I made a determination that the melded local switching rate would be in
19		compliance with the FCC rule using AT&T's best estimate of BellSouth service
20		quantities and minutes. Similarly, I have assumed that the FCC proxy for common
21		transport produces rates comparable to BellSouth's interstate rate. I made the
22		assumptions because actual BellSouth cost data is not available. It will therefore be
23		necessary for the Commission to obtain actual data from BellSouth to compute the
24		final melded local switching rate and maximum common transport rate, and use that
25		data to make minor rate adjustments if and where required. I believe my estimates are

1		appropriate and do not affect the reasonableness of AT&T's proposed prices.
2		
3	Q.	DO YOU OFFER ANY ADDITIONAL INFORMATION IN FURTHER
4		SUPPORT OF WHY THIS COMMISSION SHOULD USE AT&T'S PRICES
5		AS PROXIES?
6	A.	The AT&T proposal discussed in my direct testimony requests geographic
7		deaveraging for loops and requests that deaveraged loop rates be based on BellSouth
8		cost studies. It is unlikely that BellSouth will be able to produce suitable loop cost
9		studies in the required time frame. If it cannot, the Commission can establish
10		geographically deaveraged proxy rates based on other data sources.
11		
12	Q.	WHAT INFORMATION COULD BE USED TO DISAGGREGATE LOOP
13		RATES?
14	A.	AT&T recommends use of the Florida Hatfield results, which identify monthly loop
15		costs for BellSouth in the aggregate, and also by census block group (CBG). Based
16		on the most current Hatfield run, the aggregate forward-looking economic cost of all
17		BellSouth loops in Florida is \$11.68, including an average cost of \$27.91 for CBGs CBG, of
18		with fewer than 200 lines per square mile; \$14.98 for CBGs with 201-650 lines per
19		\$12.44 \$11.43 square mile; \$12.24 for CBGs with 651-850 lines per square mile; \$11.23 for CBGs
20		\$9.79 with 851-2550 lines per square mile; and \$9.61 for CBGs greater than 2550 lines per
21		square mile.
22		
23	Q.	HOW SHOULD THE HATFIELD DATA BE USED TO ESTABLISH
24		DEAVERAGED LOOP PRICES?
25	A .	The Commission should deaverage the proxy loop rate it establishes using a three step

1		process. The Commission should first utilize the Hatfield result, with the assistance
2		of BellSouth and AT&T, to determine equivalent Hatfield loop costs by size of wire
3		center. The Commission should next determine the number of wire center price
4		groups necessary to capture significant geographical cost differences. Finally, the
5		Commission should establish rates for each wire center price group that reflect the
6		group's relative geographic cost differences versus other price groups, while
7		producing a composite loop charge equal to the approved composite rate.
8		
9	Q.	SHOULD OTHER NETWORK ELEMENT RATES BE
10		GEOGRAPHICALLY DEAVERAGED AT THIS TIME?
11	A.	No. AT&T is not aware of readily available studies that could be used at this time to
12		identify differences in other network element costs by geographic area. Moreover, to
13		the extent such differences exist, AT&T does not believe those cost differences would
14		be as significant as loop cost variations. For both reasons, AT&T does not
15		recommend different rates by geographic area for other elements pending the
16		completion of suitable cost studies.
17		
18	Q.	IN ADDITION TO THE REASONABLENESS OF THE PRICES AT&T HAS
19		PROPOSED, ARE THERE OTHER REASONS NOT TO ESTABLISH
20		PROXY-BASED RATES AT THE MAXIMUM PROXY LEVEL?
21	A.	Yes. Establishing interim rates at the maximum permitted level when available cost
22		data indicate lower costs would discourage efficient entry, and thereby conflict with
23		the pro-competitive goals of the Act. Using the maximum rate for transport services
24		would require AT&T to pay for services AT&T might not use, as present interstate
25		transport rates include bundled functions that AT&T might not need. Finally, no

1		maximum rates have been established by the rules for various items requested by
2		AT&T, other than a requirement that rates for such items be based on direct cost plus
3		a reasonable allocation of overheads. This standard is reflected in AT&T's proposed
4		rates.
5		
6	Q.	HOW IS THE AT&T TRANSPORT AND TERMINATION PROPOSAL
7		AFFECTED BY THE RULES?
8	A.	The interim bill and keep arrangement proposed by AT&T appears to be permitted by
9		the Order only in those cases where the Commission determines that traffic from one
10		network to the other is roughly balanced. AT&T continues to support bill and keep
11		as an interim arrangement, and believes such a determination on the Commission's
12		part would be appropriate.
13		
14		Should the Commission not implement bill and keep, the FCC Rules require that rates
15		for transport and termination be established using the same guidelines provided for
16		the dedicated transmission, shared transmission, tandem switching, and local
17		switching network elements. The Order specifies that only the usage-sensitive
18		element of local switching will apply to terminated calls.
19		
20		Given the FCC's Order there is no reason to establish prices for transport and
21		termination different than those that would apply to other network element uses,
22		assuming the network element rates are based on the best available cost data.
23		Therefore, if the Commission does not order bill and keep, it should require that
24		transport and termination be billed using rates equivalent to the network element rates
25		proposed in Exhibit WE-I of my direct testimony. In requiring as much, the

1		Commission should specifically order that only the usage-sensitive element of local
2		switching apply to traffic termination.
3		
4	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
5	A.	Yes.

1		REBUTTAL TESTIMONY OF
2		WAYNE ELLISON
3		ON BEHALF OF AT&T COMMUNICATIONS
4		OF THE SOUTHERN STATES, INC.
5		BEFORE THE
6		FLORIDA PUBLIC SERVICE COMMISSION
7		Docket No. 960833-TP
8		Filed: August 30, 1996
9		
10	Q.	PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TITLE.
11	A.	My name is Wayne Ellison. My business address is 1200 Peachtree Street N.E.,
12		Atlanta, Georgia 30309. I am employed by AT&T as a District Manager in the Law
13		and Government Affairs organization.
14		
15	Q.	DID YOU FILE DIRECT AND SUPPLEMENTAL TESTIMONY IN THIS
16		DOCKET?
17	A.	Yes. I filed direct testimony on behalf of AT&T on July 31, 1996. I filed
18		supplemental testimony on August 23, 1996.
19		
20	Q.	WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?
21	A.	I address various comments contained in the supplemental testimony of BellSouth
22		witness Daonne Caldwell, and the direct testimony of BellSouth witness Robert C.
23		Scheye.
24		
25	Q.	HAVE YOU REVIEWED THE SUPPLEMENTAL TESTIMONY OF

1		BELLSOUTH WITNESS DAONNE CALDWELL?
2	A.	Yes.
3		
4	Q.	DO YOU HAVE ANY COMMENTS REGARDING MS. CALDWELL'S
5		TESTIMONY?
6	A.	Yes. Ms. Caldwell states at page 2 of her testimony that there are no common,
7		shared, or joint costs in BellSouth's LRIC or TSLRIC studies. It is important that
8		the Commission not interpret this statement to mean that BellSouth's studies as
9		provided to AT&T during negotiations, and the studies accompanying Ms. Caldwell's
10		testimony, ignore a large proportion of BellSouth's costs. Ms. Caldwell obviously
11		does not mean by this statement that costs of shared conduit, poles, land, equipment,
12		building space, spare capacity, and similar expenses are excluded from BellSouth's
13		studies, because they are not. The studies BellSouth provided AT&T during
14		negotiations have also included an assignment of common, joint, or shared costs
15		which BellSouth has categorized as administrative expense.
16		
17	Q.	DO YOU AGREE WITH BELLSOUTH'S PROPOSED \$17.00 LOOP RATE
18	A.	No. Mr. Robert Scheye offers this as the appropriate rate in his testimony for
19		BellSouth. BellSouth's proposed loop rate does not comply with the FCC's
20		maximum proxy rate of \$13.68 and must be lowered. 47 C.F.R. § 51.513. However
21		even without the FCC requirement, BellSouth's proposed rate would greatly overstate
22		BellSouth's forward-looking economic cost for providing 2-wire loops, and would
23		therefore be inappropriate. The loop studies provided by BellSouth overstate
24		BellSouth's loop costs by including investments often not used to provide loops by

overstating other investments, and by including excess return requirements. The

1		appropriate network element rate for 2-wire loops is lower than either the BellSouth
2		proposal or the FCC maximum rate, as reflected in Exhibit WE-I to my direct
3		testimony.
4		
5	Q.	DO YOU FIND THAT, AS BELLSOUTH HAS ASSERTED, "AT&T'S COST
6		ASSUMPTIONS AND ADJUSTMENTS HAVE NO RELATIONSHIP TO
7		THE COST FOR SUCH ELEMENTS PROVIDED BY BELLSOUTH"?
8	A.	No. Contrary to BellSouth Witness Mr. Scheye's assertions at page 63 of his Direct
9		Testimony, AT&T's cost assumptions for the most part directly reflect the cost
10		estimates and information provided by BellSouth during negotiations through July 31,
11		1996, when I filed my earlier direct testimony. Furthermore, because AT&T has
12		made only minor adjustments to most BellSouth cost estimates, AT&T's proposed
13		rates closely track stated BellSouth costs. The one major exception to the correlation
14		between proposed AT&T rates and stated BellSouth costs is the local loop. As I have
15		explained, BellSouth's local loop cost estimate was excessive and required significant
16		downward adjustment.
17		
18	Q.	HAS AT&T ATTEMPTED TO RECONCILE THE AT&T ADJUSTMENTS
19		TO BELLSOUTH COSTS WITH BELLSOUTH NEGOTIATORS?
20	A.	Yes. AT&T specifically asked BellSouth negotiators to review AT&T's cost
21		estimates and adjustments and, to the extent that BellSouth did not agree with
22		AT&T's estimates, to work with AT&T negotiators to develop cost estimates that
23		could be supported by both Companies. AT&T did so believing that it would be a
24		fairly simple matter to agree to estimated costs, if not price. However, BellSouth has
25		not responded to AT&T's negotiating request. Instead, BellSouth has seemingly

1		chosen to voice its concerns in Mr. Scheye's direct testimony.
2		
3	Q.	DO YOU AGREE WITH BELLSOUTH'S RECOMMENDATION
4		REGARDING INTERIM NUMBER PORTABILITY?
5	A.	No. Mr. Scheye notes at page 75 of his direct testimony that a recent FCC order may
6		have "implications" for interim number portability. In fact the FCC order for Docker
7		No. 95-116 referenced by Mr. Scheye does not permit the type of billing arrangement
8		for interim number portability Mr. Scheye proposes. Mr. Scheye's proposal should
9		be dismissed, and interim number portability should be provided under compensation
10		mechanisms consistent with the FCC Order.
11		-
12	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
13	A.	Yes.

Q (By Mr. Hatch) Mr. Ellison, do you have a summary of your testimony?

A Yes, I do.

1.3

Q Could you give that, please?

A The purpose of my testimony is to recommend economically efficient prices for facilities and elements purchased from BellSouth pursuant to the Telecommunications Act of 1996. The prices proposed by BellSouth do not comply with the pricing standards of the Act, or the FCC's order, and are contrary to the interests of Florida consumers. I recommend as an alternative that the Commission set prices for network elements using costs identified in my testimony, or alternatively, costs identified by the Hatfield Model.

The Telecommunications Act of 1996 explicitly requires the incumbent local exchange company, in this case BellSouth, to provide its network elements at prices that reflect the Company's costs and may include a reasonable profit. The appropriate costing standard requires that the costs be forward-looking and based on the use of the most efficient telecommunications technology currently available, and the lowest cost appropriate network configuration.

This is true for either the TSLRIC or the TELRIC standard. As described in my direct testimony,

the price proposals BellSouth made during negotiations
were primarily existing prices from various BellSouth
tariffs. Such prices do not conform to the appropriate
pricing standards under the Act. In contrast, AT&T's
price proposal was based on estimated costs obtained
from an analysis of available BellSouth cost
information.

The Commission should reject the BellSouth cost studies and base its network element prices on the corrected BellSouth costs contained in my testimony.

Alternatively, the Commission should adopt the prices based on costs developed by the Hatfield Model. Both options more accurately reflect BellSouth's forward-looking economic costs than the studies provided by BellSouth.

In addition, the Hatfield results have the advantage of being derived from a publicly available study that is based on publicly available input data, all of which is verifiable by this commission and other parties.

The reasonableness of the Hatfield Model's results is supported by a comparison of those results to the corrected BellSouth studies described in my testimony and the recent TELRIC study submitted by BellSouth. In addition, I recommend that the Commission

adopt bill and keep as an interim mutual compensation mechanism for intercompany traffic termination, or in the alternative, establish mutual compensation using network element costs outlined in my testimony, or pursuant to the Hatfield Model.

As noted before, the Hatfield Model results correspond closely with my corrected BellSouth costs. Adoption of my recommendations would be prudent and reasonable course of action that will facilitate and foster the development of competition for Florida consumers. Such a course will put consumers first and give them choices sooner rather than later. That concludes my summary.

MR. HATCH: Madam Chairman, one additional matter. With respect -- at the prehearing conference, it was announced that BellSouth would be filing TELRIC studies on October the 4th, and they in fact have done so. Commissioner Deason at that time had ruled that the parties may have some latitude in addressing those studies because they were filed quite late in the proceeding and nobody had a chance to address them prior. If you would allow, I would like to ask
Mr. Ellison some additional direct -- it will be quite brief -- regarding his comments and views regarding the TELRIC study.

CHAIRMAN CLARK: Mr. Lackey? 1 I don't have any objection, Madam MR. LACKEY: 2 3 Chairman. CHAIRMAN CLARK: Okay. Go ahead, Mr. Hatch. 4 (By Mr. Hatch) Mr. Ellison, have you had an 5 0 opportunity to review the TELRIC studies submitted by 6 BellSouth on October the 4th, 1996? 7 Yes, I have made an initial review of the 8 Α package. 9 Based on your review of the study, do you have 10 0 any opinions regarding the TELRIC study? 11 The TELRIC studies that were presented, 12 that I reviewed, were essentially TELRIC summaries, not 13 really studies. The studies essentially added another 14 layer of undocumented costs to BellSouth's previous 15 There was no included information regarding 16 studies. how the loadings were developed. And these are more 17 than simple loadings to the prior costs. For one, I noticed that depreciation expense 19 had increased in the TELRIC study versus the previous 20

studies, and that there was a disproportionate amount of
costs driven to the provision of the loop. I can't say
whether those factors were accurate or inaccurate,
because there's no documentation with the study to tell
how they were developed.

~ ~

with us that loop and local switching, their cost studies for loop and local switching include costs which would not be appropriate when elements are combined, but yet those costs are still in the TELRIC studies, the TELRIC loop studies.

The loop studies still contain an unreasonable

foundation for those studies, are the Company's TSLRIC

studies, and those problems that we have with the TSLRIC

In addition to that, the TELRIC studies, the

amount of spare capacity costs. There are also other costs that appear excessive but not verifiable. The installation factors cannot be verified. The investments in digital loop carrier cannot be verified. The switching usage costs, a large part of that cannot be verified. And the nonrecurring part of the study seems to assume that the ordering mechanism for unbundled elements will be some inefficient manual process. In short, the Company's studies just cannot be verified.

- Q Does that conclude your comments?
- A Yes.

MR. HATCH: We tender the witness for cross.

CHAIRMAN CLARK: Mr. Melson?

MR. MELSON: No questions.

CHAIRMAN CLARK: Brad? 1 MR. MUTSCHELKNAUS: No questions. 2 CHAIRMAN CLARK: Mr. Lackey? 3 I had this problem last week, MR. LACKEY: 4 5 too, nobody would sit around me when I was cross-examining for some reason. 6 7 CROSS EXAMINATION 8 BY MR. LACKEY: Mr. Ellison, I'm Doug Lackey appearing on behalf of BellSouth this afternoon. I'm sorry, the only questions I have are Dr. Kaserman's, so I'm going to 11 have to ask you those. Is that all right? 12 Can I give you an overall answer and refer Α 13 them to Dr. Kaserman? 14 Mr. Ellison, I'm confused about your 15 testimony. You have direct testimony that has an 16 Exhibit WE-1 consisting of eight pages attached to it, 17 correct? 18 That's correct. 19 Α And on that exhibit, which I believe is being 20 treated as a proprietary document, there's a column called AT&T Recommendation; is that correct? 22 That's correct. 23 Α And the numbers in that column, at least at 24 the time you filed your direct testimony, were the rates 25

1	that AT&T was recommending for each of those unbundled
2	elements reflected on those eight pages; is that
3	correct?
4	A That's correct. They were our recommendations
5	based on the information that we had accumulated to that
6	point in time.
7	Q Now, in North Carolina, you are also a witness
8	in the arbitration that AT&T requested there; is that
9	correct?
10	A That's correct.
11	Q And you filed testimony that, while not
12	identical, was similar in many ways to what you have
13	here, correct?
14	A Yes.
15	Q And you had an exhibit up there to your direct
16	testimony, WE-1, which was also a list of the unbundled
17	elements and contained AT&T's recommended rate; is that
18	correct?
19	A That's correct.
20	Q Now, it was my understanding last week in
21	North Carolina that you urged the Commission there not
22	to rely on the rates that were contained in your Exhibit
23	WE-1, but instead to use the output of the Hatfield
24	Model. Did I misunderstand that, last week?

A No, that is correct. We had the opportunity

- in North Carolina to update our exhibits, and at that time I suggested that the commission use the background cost data included in my Exhibit WE-1 to check the 3 validity of the Hatfield results, but my recommendation 5 was that the commission use the Hatfield study.
 - And what you did in North Carolina was you sort of borrowed Mr. Wood, who was testifying for MCI, filed rebuttal testimony and put the Hatfield results in for AT&T; is that correct?
 - Yes, that's correct. Α
 - And there were only one set of Hatfield -there was only one set of Hatfield results in North Carolina for both AT&T and MCI, correct?
 - Α Yes.

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- And Mr. Wood, I think, must be testifying in Q this proceeding for MCI, correct?
 - That's my understanding. Α
- And do you understand that he's offering the Q output of the Hatfield Model?
- Α Yes.
 - So would you like to defer to the output of the Hatfield Model and ask the Commission to rely on those results rather than the ones in your Exhibit WE-1, like you did in North Carolina last week?
 - It would be my recommendation that the Α

Commission use the Hatfield Model. And I make that recommendation for a couple of reasons. I think the Hatfield rate structure is a little more simple than what I have recommended. The other -- the other reason I would recommend that, I believe the underlying cost data that we've obtained from BellSouth indicates that the Hatfield Model produces reasonable results.

But the problem we have at this point in Florida, with the numbers that I have developed, is that at the time we filed the testimony we were still trying to determine the -- we were still trying to get information from BellSouth to refine our costs and obtain the documentation on those costs. We have not been able to do that.

By like token, since that time there's been a requirement that -- at least at the federal level -- that the TELRIC requirement would require some minor modifications, and BellSouth has not provided us the data to make those modifications. I believe the Hatfield Model fully complies with all those requirements, and that's why I would recommend it at this point.

- Q So the answer to my question was yes?
- A Yes.

Q So I don't need to question you about Exhibit

WE-1 because AT&T wants to rely on the output of the 1 Hatfield Model that Mr. Wood is going to present either 2 tonight or tomorrow? 3 Except to the extent that I think the numbers 4 on WE-1 do provide a reliable indication that the 5 Hatfield Model produces good answers. Okay, but you don't want the Commission to 7 Q adopt the numbers in the column called AT&T Recommended Rate on your Exhibit WE-1? 9 That's correct. Α 10 Now, you mentioned the Hatfield testimony in Q 11 your study several times, but as I understand it, you do 12 not hold yourself out as an expert on that model? 13 No, I am not an expert on the Hatfield Model. 14 And any questions I might have about Hatfield 15 you would prefer I defer to some other witness; is that 17 right? Α Yes. 18 I don't have a question about the model, but I 19 do want to ask you where some numbers came from, all 20 right? 21 Α All right. 22 Could you turn to Page 11 of your supplemental 23 testimony? And it's the Q and A beginning on Line 12. And this is to deal with the disaggregated loop.

Α Yes. 1 Can you tell me where those numbers came from? 2 0 Mr. Lackey, those numbers were an initial run 3 Α of the Hatfield Model. The model that Mr. Wood has 4 filed in this proceeding is the current version of the 5 model. And actually, these numbers, to the extent that we recommend the use of the Hatfield Model, they should 7 be updated to reflect Mr. Wood's testimony in this proceeding. 9 How come you didn't update it when you were 10 making corrections to your testimony a minute ago? 11 At the time I filed my testimony, those were 12 the most current numbers. But they have been updated. 13 Actually I just meant about ten minutes ago, 14 or 15 minutes ago. Do you have the correct numbers that 15 go in there? I believe I do. 17 Α How about giving them to us. 0 18 Could you give me just a minute to write these 19 Α 20 down? (Pause) Got them, Mr. Ellison? Sure. 21 Q Yes. A 22 Could you give them to us, please? 23 Q Beginning on Line 17, "BellSouth loops in 24 Α

Florida" -- and we're talking about -- well, let me

finish from the last sentence, "forward-looking economic cost of all BellSouth loops in Florida is \$11.89, including the average cost," and we need to insert another density group, "\$82.80 for CBGs of zero to 5 lines." I would insert that. And then the next one would be "\$26.91 for CBGs of 5 to 200 lines." The rest will be the same.

Beginning on Line 18, the \$14.98 should be \$15.22. On Line 19, the \$12.24 would be \$12.44, the \$11.23 would be \$11.43. And on Line 20, the 961 would be \$9.79.

Now, just so we're straight about what we've just got, the numbers you've just given us are the average cost figures in six density zones produced by the Hatfield Model; is that correct?

A That's correct.

Q And just so we're clear about this, for instance, the \$82.80 charge you gave me would be the average cost for providing a loop in a census block group having less than five lines, five or less lines per square mile; is that right?

A That's right.

Q And is it AT&T's position that the state of Florida ought to be broken into six geographic zones based on these density measures?

1	A Yes. I think it should certainly consider
2	breaking it into six. I would to the extent that
3	there are not large variances, the Commission may want
4	to combine one or two.
5	Q Now, that FCC order that we were talking about
6	a little while ago, that one that, as far as I know, is
7	still stayed, required three zones, right?
8	A A minimum of three, yes.
9	Q And AT&T is recommending six, correct?
10	A We've produced cost studies identifying six
11	density zones.
12	Q Well, I asked you a minute ago
13	A In this particular case, I'm referring to the
14	Hatfield Model, production.
15	Q Perhaps I wasn't clear a moment ago. Is AT&T
16	recommending six zones in Florida based on these density
17	results, in this proceeding?
18	A Yes.
19	Q Okay. So if you happen to be one of those
20	happy, or unhappy, people who lives in the census block
21	group having a density of five or fewer lines per square
22	mile, the cost of your local loop, on average, is going
23	to be \$82.80, correct?
24	A The cost to that individual, no. That would

be the cost to the network element that would be

purchased by --1 I wasn't talking about the price to the 2 customer. I was saying, that's the cost of the local 3 loop in that density area, correct? 4 Yes. 5 And we could go right down the line, same 6 Q thing for the next group, fewer than 200 lines, you 7 8 would claim that the cost of the loop, based on a forward-looking incremental cost study, would be \$26.91, 9 correct? 10 Α Yes. 11 Now, do you happen to know what the -- do you 12 Q know what rate groups are? 13 14 Yes. Rate groups are what? 15 Q Well, let me back up. I assume when you talk 16 about rate group, you're talking about BellSouth's rate 17 18 groups? 19 Yeah, uh-huh. Which establish local service rates based upon 20 the available local calling area? 21 Do you happen to know what the rate is 22 Q Yes. in Florida for rate group 1 for individual residence service?

No, I do not.

24

1	Q Would you accept, subject to check, that it's
2	\$7.30?
3	A Subject to check, yes.
4	Q Would you accept that the highest rate group
5	is rate group 12 and it's \$10.65?
6	A I would accept that subject to check.
7	Q Would you happen to have an opinion about
8	where the lowest population density might fall in terms
9	of the 12 rate groups?
10	A I don't think you can make that call,
11	Mr. Lackey. There is not a direct relationship between
12	rate groups and density groups.
13	Q Well, okay. One of the principles of
14	establishing rate groups is based on, for instance, the
15	number of people that you can call; isn't it?
16	A Yes.
17	Q So in rate group 1, you would be able to call
18	fewer people than you might be able to call in rate
19	group 12, correct?
20	A That's certainly true.
21	Q But you don't think the density of the
22	population in rate group 1 might be less than the
23	density of the population in rate group 12?
24	A I think overall that's true, but you could
25	have density groups in in rate group 1 that were

higher than the smallest density group, certainly. That's fine. I'm sorry. I didn't mean to cut 2 you off. We can agree, can't we, that except for those 3 census block groups having greater than 2,550 lines per square mile, that the cost of the loop alone that your 5 study has produced is greater than the charge for the 6 1FR service for every rate group, can't we? 7 Than the basic charge for the 1FR service? 8 Α Let me --Q Yes. 9 Α I --10 Can I put it in context for you? 11 Q Α Yes. 12 The largest rate group is more than 2,550 13 Q lines, if I read your testimony. The next largest is 14 850 to 2,550 lines; is that correct? 15 Α Yes. 16 And you have a cost of \$11.43 on average for 17 census block groups having that density per square mile, 18 correct? 19 Yes. 20 Α And \$11.43 is higher than the highest 1FR rate 21 Q charged for any rate group in Florida, correct? Which you told me was, I'm sorry? 23 Α \$10.65. 24 Q

If that number is correct, then I would agree.

25

Α

1 Q Okay. You will agree? 2 Α Yes. So we shouldn't have any disagreement from 3 AT&T in the future that if the state -- if the 4 Commission selects those six zones, about the cost of 5 the 1FR service, at least basic 1FR service, being less 6 than the cost of the loop to provide the service, on 7 8 average, should we? Here again, Mr. Lackey, you're just talking 9 about one rate element of the service. There are other 10 rate elements and other charges associated with that 11 I think you would have to look at all those 12 service. 13 charges. But the answer to my question was yes, wasn't 14 The cost of the loop alone in every one of those 15 zones, save one, exceeds the entire cost of the basic 16 1FR service? 17 18 Α No. Is \$11.43 larger or smaller than \$10.65? 19 Well, I assume, for one thing, Mr. Lackey, 20 there is an end user charge that's collected on that 21 service. 22 This commission didn't impose the end user Q 23

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charge, did it, Mr. Ellison?

No.

- That's a charge imposed by the Federal Q 1 Communications Commission; isn't it? 2 It is, but it is revenue that you collect on 3 4 the provision of that service. Well, we can go through it, I guess. 5 mean, if you take the rate group No. 1 at \$7.30, even if 6 you add \$3.50 to it, you still don't get above the loop 7 cost in most of those zones, do you? 8 Well, I agree with you, Mr. Lackey, that what 9 we're proposing here is to pay a loop charge that's 10 higher than the typical basic revenue that's produced by 11 the service. But what we're proposing is that the price 12 for unbundled elements be priced at economically 13 14 efficient rates. 15 Well, actually, though, Mr. Ellison, I guess what you could do is for all those density zones where the loop is higher, you could take your 40 percent 17 discount off the 1FR rate, couldn't you? 18 If you're talking about the resale offering? 19 20
 - Yes, uh-huh.

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Well, certainly you could -- that is an option for providing services, is to offer -- if you're going to offer services through resale, you're not limited to those groups. You would be able to do that for any of these groups.

Q For instance, in rate group 9 where the rate is \$10.05, approximately a 40 percent discount, you would pay about \$6 for the loop, if you -- or you would pay about \$6 for the service, if you resold 1FR; wouldn't you?

A Here again, we're comparing density groups to rate groups, and I don't think we can make that direct comparison.

Q Well, I guess I'm confused. If somebody were located in rate group 9 today and you got your discount rate, AT&T could buy 1FR service for around six bucks in that rate group, couldn't it? Sixty percent times \$10.05?

A Yes, I'll accept that calculation.

Q And no matter how you slice it or dice it, if you add the subscriber line charge to it, no matter what density group that rate group 9 is in -- density group being described on Page 11 of your testimony -- you're still going to be below cost in all except the most dense areas; aren't you?

A I'm still going to be below cost. With respect to resale -- to resale services, Mr. Lackey, what we are proposing -- and my testimony does not deal with resold services -- but essentially, with respect to those services, we're just saying that the differences

in costs would be reflected in the rates we pay.

Q But it certainly wouldn't be illogical for AT&T to adopt a strategy of buying unbundled loops, where the loops were cheaper than the rate, and using resale when the resale discount got you the rate that was below the cost of the loop; would it?

A No, I think it's a much more complicated process than that. I think you have to recognize that resale is a -- is a means of providing services to customers, but when you're reselling services, there are certain limitations on what you can offer, certain limitations on where you can go with the service, and that unbundling has other options and opportunities that are not available through resale. So it's not a question of this or that.

Q That's right. Unbundling allows you to avoid paying access charges; doesn't it?

A Unbundling is -- unbundling provides a means for a new entrant to come into the marketplace, through the use of unbundled elements, to offer services and configurations to the customer that could not be offered through -- simply through the resale of retail services.

It also allows the new entrants to come into the marketplace, and as they aggregate customers, and

1	gain business, and gain volumes, to replace or to build
2	their own facilities. So it is a means of encouraging
3	facilities-based competition. So there's you know,
4	there's I don't think you can just pick one reason
5	and say that's why you might choose one over the other.
6	Q I had thought I was going to get to
7	Dr. Kaserman before you, so if you don't know the answer
8	to this question, just say so, okay?
9	Well, preliminary question. Were you ever a
10	network engineer?
11	A When you say network, Mr. Lackey, what part of
12	the network are you referring to?
13	Q All right. Were you ever an engineer with
14	regard to any part of the network?
15	A I was an outside plant engineer, yes, local
16	distribution engineer.
17	Q Did you have responsibility for making
18	decisions about installing plant, outside plant?
19	A Yes.
20	Q And did you use cost models to make decisions
21	about how and where to install outside plant?
22	A We generally use cost models in sizing the
23	outside plant.
24	Q But you did make economic analysis when you
25	made decisions about placing outside plant, the need for

it, the size of it, that sort of thing; didn't you?

A Yes.

- Q Now, can you tell me whether there would have been any circumstances where if somebody else already had the plant in the ground and you could buy it for a price cheaper than you could put it in the ground, where you would go ahead and put your own plant in any way?
- A Well, certainly at the time that I was in the business, yes, I could think of circumstances. I could think if the quality of that plant was not what it should be.
- Q All right. If I told you that the plant that was in the ground would be priced as if it were the most efficient, least cost and most modern technologically, and it -- I told you it was in the ground and I would give you the price for it, the incremental price for it, can you think of any reason why you would put plant in the ground?
- A If I could not do it more efficiently than you could, and you had the plant there, then I would want to use your plant, yes. And I think the customer and the consumers would be better off if I made that decision.
- Q All right, now, let's talk about BellSouth's cost studies for just a minute. Now, you were in -- you were with C&P for at least seven years, and you did work

in the cost area; is that right? 2 Α Yes. And as I understand it, you are very familiar 3 Q with many of the procedures and methods followed by BellSouth to develop cost because BellSouth's methods 5 and procedures were very much like the ones you used at 6 C&P; is that correct? 7 That was true at the time I wrote my 8 Α testimony. A couple procedures have changed since then. 9 Well, let's break it into two steps then. At 10 the time you wrote this testimony, which was -- do you 11 know when? Sometime in August, September? Well, we'll check the date. This was right 13 Α around the last of July, I believe. That's fine. The procedures and methods that 15 BellSouth was using at that point, then, were similar to 16 the ones that you were familiar with because you had 17 used them at C&P, correct? 18 That's correct. 19 Α And I take it, therefore, you had no objection 20 to the methodology or the procedure, since you had used 21 it yourself? I had no objection to some of the 23 methodologies and procedures, that is correct. A lot of 24 the studies that I looked at -- the initial studies that 25

BellSouth provided AT&T, we were able to look at. We -my objections there was not being able to get the basic
input data to verify the inputs.

Q That's what I'm trying to get to. I'm trying to make sure that it was an input problem that you had with those studies and not a methodology or procedures problem, okay? Would that be an accurate statement?

A Well overall, I think, for the time -- at the time that I was working with C&P, back before divestiture, I think they were appropriate studies for estimating costs to the extent that we needed to determine costs. I don't necessarily agree that they're the best procedures for doing that, but they were system-wide procedures.

Q Okay. Now, as I understand -- maybe you better tell me what you think the changes were between what the study that you had before, say, July -- the end of July when you wrote this testimony, and the study you have now are, so that we can understand what we're talking about.

A Let me see if I can think of all of them. We had two versions of loop study. The Company originally gave us a loop study during negotiations. That loop study, for one, used much higher -- what do I want to say? -- plant utilization factors. In other words, the

Company did not add -- well, the Company added a significant amount of expense in those original studies for spare capacity, but nothing like it added in the studies that we got later. So on the one hand, the amount of loading into the cost for spare capacity greatly went up.

Another part of the original study --

- Q Can I interrupt you just for a minute? Are you saying the fill factors were different; is that what that was?
 - A Yes, the assumption on outside cable fill.
 - Q Thank you. Okay, sorry for the interruption.
- A Another part of the original studies, in the original studies that we received from BellSouth, the categories of expense that were included in that study were much more comprehensive than the studies that they have now given the Commission. So on the one hand, the cost of the recent studies went up significantly because of the fill factors, but they would have gone up even much more if the Company hadn't taken out what they call administrative expenses.

Now, we assumed in the initial studies that the Company was putting in these expenses because they thought they were directly attributable costs. So there were -- those costs were in there. Now they're not in

there and the Company has come back with the TELRIC study which says, I want to put those costs back, but I believe within the TELRIC study -- and I can't tell in all cases -- that probably what they're putting back is more than they took out. There was a --

That's two. Okay, what's next? Q

That's two. With respect to the loop and --A well, with respect to the central office study, the usage component of the local switching study includes an output for expense per message. That expense per message is also an input. So I have this elaborate study that was developed by the Company using, as they defined them, very comprehensive and complicated models. But most of the cost that comes out is simply the cost that went in. That cost was not in the original study provided to AT&T. And I have yet to verify what that cost represents.

That's three. Q

We have a problem with the -- with verifying the installation factors. As best I can tell, the installation factors -- and that is the factors that you apply to your cable investments in order to obtain an installed cost -- appear high.

Q Can I interrupt?

A Yes.

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Q I'm sorry, was that something new? You could verify the installation factors before, but now you can't?

A We couldn't verify them before. What we could verify before was what was given to us was a total installed cost for different sizes of cable. And I would have to admit that what we got was pretty limited information at that time.

Q So that wasn't something new then, the verification issue?

A Well, what happened on the -- what happened on the new studies was that the Company, instead of giving us those types of installed costs, they gave us -- they went to a calculation process where they took the basic material price, applied nonexempt material, and applied installation and engineering loadings to get a total installed cost. And when I compared some of those total installed costs, using those factors, to what I'd been given before, I could not get a corresponding relationship between the two numbers. And I don't know whether they're right or wrong because I don't know where the numbers came from.

Q Fine.

A But I think they're something that need to be verified.

Q What next?

MDF, mainframe determination, and protector costs showing up in both the loop study and the central office study. And I think the BellSouth witness would agree that if AT&T were to offer -- or purchase a loop and combine it with BellSouth's central office, that those costs should not be included.

We have a problem with the inclusion of the non-integrated technology in the basic loop cost. On a going forward basis, when BellSouth's loops are connected to BellSouth's central offices, that non-integrated technology is not the forward-looking technology. And by including it, it greatly overstates the cost of the loop.

Those are just some of the things. I could probably -- I believe I listed the major, major items of concern. And let me just summarize that. I've talked mainly about local switching and about the local loop. When I look at the other BellSouth cost studies for the other elements -- and incidentally, we don't have any cost studies in this docket from BellSouth for transport, common or dedicated transport, or tandem switching. But with respect to the other elements, although I cannot verify the prices in there, they do

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look -- they fall in line with the Hatfield Model
 2
    anyway.
              All right, are those all the major problems?
 3
 4
              You asked me if those are all my major
 5
   problems?
              No, all your major problems with the study.
 6
         Q
         Α
              I believe I listed most of them, Mr. Lackey.
 7
              Let's take a look at a couple of them. Let's
 8
         Q
 9
   talk about -- and I'm not sure I got this right --
10
   mainframe and protectors. Is that what you said?
11
         Α
              Yes.
              Mainframe and protectors show up twice; is
12
    that -- did I get that right?
13
14
         Α
              Yes.
15
              Now if I understand what this study does, is
16
   it gives you an unbundled loop, correct?
17
         Α
              Yes.
18
         Q
              And it gives you an unbundled port, for
   instance, correct?
19
              You have a port study and you have a loop
20
   study, two separate studies, yes.
21
22
              Now, if I -- you want to be able to buy the
         Q
23
   loop by itself; don't you?
              We want to buy it in various combinations.
24
         Α
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And I think your witness agrees with me that if you're

going to have a basic loop price and central office price, it has to be configured in a way that when you combine the two, you don't pay that charge twice.

Q Let's just suppose that AT&T actually decides to put a switch in somewhere and provide facility-based local service, okay? When you buy a local loop, that local loop has to come with a mainframe connection and a protector; doesn't it?

A Yes.

Q All right, now let's suppose that you decide to go out and plow some ground and put a loop in, but you want to hook your loop up to our switch, okay?

A Yes.

Q When you do that, our switch has to have a mainframe and protector connection, correct?

A That's correct. And the only point I make, Mr. Lackey, is you need to structure your prices in a manner that charge me according to what I request.

Q Well, but if somebody requests a loop, by itself, it's got to have that mainframe and protector, correct?

A loop by itself, it does, yes.

Q And --

A But now if I connect that loop to the central office switch, it already has the mainframe and

protector in there, I don't need to pay that again in 2 the switching rate. 3 The loop is an element, correct, a network Q element? 4 Α Yes. 5 The switch is a network element? 6 Q 7 Local switching is a network element. What Α we're talking about here is how you price it so that 8 when the new entrant purchases either one, they pay for what they use but don't pay for what they don't use. 10 Do you know what BellSouth's position is when 11 12 you put a loop and a switch together, what we call that? 13 Mr. Lackey, I understand your position is that 14 you will not allow us to purchase a loop and connect it 15 to your local switch, and that's the basis for making 16 the study the way you did. 17 Actually, isn't our position that when you put 18 Q the two together, it's what's called local service, and 19 you have to resell it? Isn't that our position? 20 I don't know if that's the way you describe it 21 or not. 22

Q I take it you weren't in North Carolina Monday or Tuesday and didn't hear Mr. Scheye and Mr. Varner's testimony?

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1 No, I was not. Α 2 Never mind then. Integrated digital loop 3 carrier, that was another one you brought up, right? 4 Α Yes. Now just so we all think we're talking about 5 the same thing, an integrated digital loop carrier refers to a situation where somebody's loop is brought 7 in on fiber and it's integrated directly into the

right into the switch, right?

A Well, I think there's probably a cross-connect unit in there, but essentially it comes in at a -- in a digital format and is connected to the switch in digital format.

There's no frame, no nothing else, just goes

- Q Were you here when Mr. Tamplin testified earlier today?
 - A Yes.

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- Q Now, in order to pull a loop off the integrated digital loop carrier, you have to either terminate the whole digital loop carrier at a central office terminal, or you've got to pull the loop through the switch; don't you?
- A No, I think what Mr. Tamplin was talking about in his testimony was a case where AT&T actually requested that the Company provide a separate loop, not

connected to its switch.

Q All right, let me try it again. Let me use an example. Let's assume that Ms. White over here is still buying local telephone service from BellSouth, and she happens to be one of the fortunate people who is served by a loop that's provisioned using an integrated digital loop carrier, okay?

- A All right.
- Q That's not wholly implausible, is it?
- A No, not at all.
- Q Now suppose she decides she wants to go over to AT&T, had all of me she can stand and she's going to change, she's going to move over to you. How do we get her loop, which is served by an integrated digital loop carrier, off of the switch, into your facility, your switch?

A We may not want it off the switch. I think a large proportion of time, at least in the early stages of competition, that loop will not change. It will stay right where it is connected to that switch.

- Q I'm sorry, I left a piece out. Let's assume that you actually buy a switch and are going to provide facility-based local service and you want to get her loop. How do I get her loop to your switch?
 - A I can't answer that, Mr. Lackey. That's a

technical question. I understand there are some
forward-looking technologies that can do that. There
would probably be something additional required in that
particular circumstance, but that is an option that
should be priced separately as an option, not as part of
the basic loop.

Q But you will agree that if that loop had to be rolled off the switch, the cost of rolling it off the switch would be an appropriate cost in a loop -- in an unbundled loop cost study; wouldn't it?

A No, it would -- it would be an appropriate option within local loop cost study.

Q All right, let me --

A But it's not part of the basic loop cost. In other words, you need to -- there again, we're talking about how do you construct your prices so people pay -- or new entrants pay for what they use but don't pay for what they don't use.

Q If you can't put a loop and a port together, or if you do put it together it's called resale. Assume that just with me for a moment. And you wanted Ms. White's loop pulled off and rolled over to your switch. There would be cost associated with that; wouldn't there?

A Yes, if this Commission did not allow AT&T or

other new entrants to purchase BellSouth's local loops
and connect those with BellSouth's central office,
switching, there would be a different cost -- or
potentially a different cost for the loop. And I don't
know if there really is any different cost for loops
that were not connected to the switch.

Q All right, and --

A But as long as -- but if we're going to have competition, that kind of -- that kind of provisioning has to be required, if you're going to see any kind of competition in Florida. And in addition to that, it has to be priced in a manner that reflects the cost of providing the service. If you don't do that, then competition is going to be very limited.

- Q Or alternatively, AT&T could spend some money and build a network; couldn't it?
 - A That would take a long time, Mr. Lackey.
 - Q Aren't companies doing it right now?
- A Well, I think they are. But what we're talking about here is widespread competition. What we want to see is not niche competition within Florida. I don't think anyone wants to see that. I think we want to see choices provided to all the consumers of Florida. And if you have to wait for people to build their networks and to have ubiquitous networks in

Florida, competition will be a long time coming.

Q But people are already building them, aren't they? Doesn't MCI already have a local switch here in Florida?

A I don't know if they do or not, but if they do, it certainly is not available to the vast majority of Florida consumers.

Q Now, you don't have any objection in

BellSouth's loop cost studies for the inclusion of what

we call a reasonable -- or a reasonable amount of what

we call bridged tap; is that correct?

A I think we had this discussion in North Carolina.

Q I just want to make sure it hasn't changed.

A We recognize that BellSouth has, in constructing its plant, to serve a number of customers, cannot utilize that plant 100 percent. They have requirements for spare capacity, for bad pairs, what we call breakage, which means you can't get an exact size cable. So we have no problem with that. We just have a problem with the excess amount of spare that you include in your studies. And I would like to point out that that spare is not -- we're not talking pennies here, we're talking dollars.

Q And it would be fair to say you don't object

to the inclusion of the drop wire in the cost of the loop either; is that correct? 2 That's correct. 3 Now, one of the things you did object to, if I 4 5 recall correctly, was the cost of money that BellSouth used in its cost study; is that correct? 6 Α Yes. 7 8 Now you know, don't you, that the cost of money that BellSouth has used in the TELRIC study that you referred to in your summary was 11.25 percent; don't 10 11 you? Yes, I do. And I actually expected, because A 12 of the use of the 11.25, to see some savings in the 13 Unfortunately, that was pretty much offset by 14 study. Bell's changes to the depreciation rates. 15 Do you happen to know what depreciation rates 16 Q the Hatfield study that you're now relying on used? 17 No, I do not. Α 18 Have you compared those to the -- I guess you 19 haven't compared those to the depreciation rates in 20 BellSouth's study then? 21 No, I have not. 22 Α

Q And I take it you now have no objection to the 11 and a quarter percent cost of money that was used in the study; is that correct?

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1 Α I'm not an expert on cost of money, Mr. Lackey, but I have -- you know, I've seen several --2 I've seen several -- or heard other people talking that 3 11.25 -- particularly the FCC in its order, the FCC noted the 11.25 was a good starting place, but they even 5 noted that they were looking at that to see if that potentially was too high. I don't know, 11.25 is 7 certainly better than what the Company used in its prior I don't know if -- it may still be too high. 9 studies. Why don't you remind us all of what -- I'm 10 sorry, do you know who Mr. Art Lerma is? 11 Α Yes. 12 Why don't you remind us all of what cost of 13 money he used in his cost analysis in this case, for 14 BellSouth? 15 Α I don't know, Mr. Lackey. 16 I pointed this out to you last week in North 17 Q Carolina, didn't I, Mr. Ellison? 18 It's old age. 19 Α And you didn't go look after I raised it? Q 20 MR. LACKEY: May I approach the witness, Madam 21 Chairman? 22 Sure, Mr. Lackey. 23 CHAIRMAN CLARK: I'm going to hand you a copy 24 (By Mr. Lackey) Q of what's marked as Lerma Exhibit ALS-2, Page 4 of 4, 25

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and I have the others right here. Take a look at that
 2
   for a minute, will you? (Pause) Have you had a chance
   to look at it, Mr. Ellison?
 3
              Well, I have looked at it. I'm not really
5
    sure I know what it is.
              Well, don't you see the figure of 11.25
6
         Q
7
   percent there on the exhibit, Mr. Ellison?
         Α
              Yes.
8
9
         Q
              Okay.
              I don't think -- you know, what's the
10
         Α
11
   question?
              Well, there isn't one pending. You answered
        Q
12
        The question was: Do you see 11 and a quarter on
13
    it.
   that page?
14
15
         Α
              Yes.
              And that is Mr. Lerma's exhibit that I handed
16
         Q
   you, at least appears on its face to be, isn't it?
17
              Yes. And my point is, I don't know what the
18
         Α
    cost of money should be. I see a range in there, but
19
    it's certainly a consideration that the Commission
20
    should make in determining the price of network
21
22
    elements.
              Well, Mr. Lerma used 11 and a quarter percent
23
         Q
    on money. Would that be good enough for you in this
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testimony?

I don't think -- 11.25, if we can -- if you 1 Α could resolve all the others issues that we have with 2 3 these cost studies, I don't think the 11.25 would be as significant as some of these other elements. 5 Now, one last thing, you've asked the Commission in this arbitration to set rates for -- on an 6 7 unbundled basis for operator services; haven't you? 8 Α Yes. Now if I understand what you want the 9 Commission to do is establish a rate for various kinds 10 of operator services that we provide, collect calls, 11 automatic calls, that sort of thing; is that right? 12 Α 13 Yes. Now, it was my understanding that AT&T didn't 14 intend to use any of our operator services; isn't that 15 Mr. Lerma's position? 16 You know, I think our position would be that 17 Α we really don't intend to use any of those services when 18 19 we can use our own. But that must mean that there may be occasions 20 when you can't use your own that you're going to want --21 have us -- have operators standing by to take your 22 calls, right? 23

Mr. Lackey, I think that depends on the

decisions that this Commission makes and the

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opportunities they make available to us. But if we could utilize our own services in all cases, I'm certainly not in the area of the business to say what we would do, but I suspect that would be our choice.

Q But apparently you want the Commission to set a rate so if an occasion comes up, you can use BellSouth's operators, correct?

A If it's -- if there's going to be times when it's necessary to use BellSouth's operators for unbundled elements, then there needs to be a rate established for that.

Q And there may be such circumstances, you may have an operations or operator center go down, or you might get an overload on Mother's Day, might be occasions like that, mightn't there?

A I couldn't speculate on that, Mr. Lackey.

You're talking about operations and how they might be handled. I don't know.

Q Let me just confirm one more thing, then, and we'll be done. You certainly wouldn't ask this Commission to do something that was unnecessary, would you, in this arbitration?

A No, I wouldn't.

- Q I may have overreached there, but generally --
- A No, I would not.

Q So you must have some reason for wanting a rate for operator services, correct? Whatever it is.

You may not be privy to it, but you must have a reason, correct?

A If this Commission makes a -- you know, I think the Commission has to look at what's going to be required here. If there's going to be a case where we may be required to use BellSouth operator services, then there would need to be a rate for that. Otherwise, there would not need to be.

MR. LACKEY: Thank you, Madam Chairman.
That's all I have.

CHAIRMAN CLARK: Well, I'm confused. Do you need that element or not? Do you need that or not?

in this proceeding is that we want to be able to route the customers' operator services to AT&T. There has been some discussion about where some switches may not be compliant and therefore could not provide that. And the Commission has been asked to decide that. If the Commission determines in a particular case, for one type of office or one location, that there's no way to route that traffic to the Company, then in that case we would be forced to use BellSouth's services. Now if that's the case, then there would need to be a rate established

for it. 2 CHAIRMAN CLARK: Okay. Staff. 3 CROSS EXAMINATION BY MS. CANZANO: 4 5 Q Good afternoon, Mr. Ellison. 6 Α Good afternoon. We would like to clarify a statement you put 7 forth earlier in your testimony. It's our understanding 8 that you believe there are certain problems with 9 BellSouth's TELRIC study; is that correct? 10 Are you talking just the TELRIC -- the total 11 Α TELRIC study, or the changes they made? 12 The changes they made from -- in what was 13 Q produced late last week. 14 Yes, I think there are a lot of problems 15 remaining with those studies. 16 And what we'd like to clarify is what exactly 17 Q is AT&T's position, then, if you do not believe that the 18 Commission should order interconnection priced at the 19 TELRIC study's cost? 20 Our position would be to recommend that the 21 Commission use the Hatfield results as presented by MCI 22 in this case. 23 And if we wanted specifics regarding the 24 Hatfield studies, we would ask those questions of

Mr. Wood; is that correct?

A Yes.

Q Mr. Ellison, are the functions of transport and termination for local interconnection and the termination of IXC toll traffic essentially the same?

A Yes, they are. But I would like to add there that that doesn't necessarily mean that the cost studies that may be produced would be appropriate.

Q And why not?

talking about here, the old studies for interLATA toll services or access services assume that BellSouth, for example, was always going to be on one end of the circuit; in other words, BellSouth's switch was always going to be on one end of the circuit. And so those studies have built into them some switching investments, the trunking port investment.

Now when you talk about dedicated transport for local, that transport may be between a Bell office and a competitor's office, or it may be between two competitors' offices. So in that case, there's no switching — there is no BellSouth trunk port involved, so that that component of the cost should really be an optional feature that went with the dedicated transport, as opposed to being built into it, the way it is now, in

Is it your position that the 2 Telecommunications Act of 1996 requires that switched 3 access charges be repriced in this proceeding? 4 MR. HATCH: I would voice, at least an 5 objection to the extent she's calling for a legal 6 interpretation of the mandates of the Telecommunications 7 Act. 8 MS. CANZANO: And we understand that 9 Mr. Ellison is not an attorney. 10 WITNESS ELLISON: I don't know that I can 11 offer an opinion on what the Act requires. I can say that the sooner that all of these services -- transport, 13 14 or whether it be transport, termination for local service or for access service -- the sooner both of 15 those services, in both cases, are priced at economic costs, the quicker you're going to have the kind of 17 competition, equal competition, that's going to benefit 18 the Florida consumer. 19 20 (Transcript continues in sequence in 21 Volume 4.) 22 23 24

the access studies.

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