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1		BELLSOUTH TELECOMMUNICATIONS, INC.
2		DIRECT TESTIMONY OF NATHANIEL D. TOLAR
3		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4		DOCKET NO. 001305-TP
5		FEBRUARY 26, 2001
6		
7	Q.	PLEASE STATE YOUR NAME, YOUR BUSINESS ADDRESS, AND
8		YOUR POSITION WITH BELLSOUTH TELECOMMUNICATIONS,
9		INC. ("BELLSOUTH").
10		
11	Α.	My name is Nathaniel D. Tolar. My business address is 675 West
12		Peachtree Street, Atlanta, Georgia 30375. I am employed by
13		BellSouth as Manager – Interconnection Services for the nine-state
14		BellSouth region. In this position I am responsible for the management
15		of issues regarding network interconnection and unbundled network
16		elements provided to Alternative Local Exchange Companies (ALECs).
17		I have been in my current position since February 2000.
18		
19	Q.	PLEASE SUMMARIZE YOUR BACKGROUND AND EXPERIENCE.
20		
21	Α.	My business career spans over 30 years and includes responsibilities
22		in the areas of network planning, engineering, regulatory, forecasting,
23		finance, small business services, strategic planning, performance
24		measurements and interconnection services. Prior to my BellSouth
25		employment, I performed a variety of functions including design
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l		engineering and software production with the Western Electric
2		Company (now Lucent Technologies). I received a Bachelors of
3		Science Degree in Mathematics from the University of North Carolina
4		at Pembroke in 1970.
5	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY TODAY?
6		
7	Α.	In my testimony, I will address the technical aspects of network related
8		issues which have been raised in the Petition for Arbitration filed by
9		BellSouth Telecommunications in this docket. Specifically, I will
10		address the following issues, in whole or in part: Issues 10, 28, 33-35,
11		40 and 53.
12		
13	lssue	10: Should the rate for a loop be reduced when the loop utilizes
14	Digita	ally Added Main Line (DAML) equipment?
15		
16		
	Q.	BRIEFLY DESCRIBE DAML EQUIPMENT AND WHEN BELLSOUTH
17	Q.	BRIEFLY DESCRIBE DAML EQUIPMENT AND WHEN BELLSOUTH UTILIZES IT.
17 18	Q.	BRIEFLY DESCRIBE DAML EQUIPMENT AND WHEN BELLSOUTH UTILIZES IT.
17 18 19	Q. A.	BRIEFLY DESCRIBE DAML EQUIPMENT AND WHEN BELLSOUTH UTILIZES IT. DAML equipment is designed for use over a copper facility. It uses
17 18 19 20	Q. A.	BRIEFLY DESCRIBE DAML EQUIPMENT AND WHEN BELLSOUTH UTILIZES IT. DAML equipment is designed for use over a copper facility. It uses ISDN technology to electronically derive additional loops over copper
17 18 19 20 21	Q. A.	BRIEFLY DESCRIBE DAML EQUIPMENT AND WHEN BELLSOUTH UTILIZES IT. DAML equipment is designed for use over a copper facility. It uses ISDN technology to electronically derive additional loops over copper facilities in a manner similar to digital loop carrier. DAML provides a
17 18 19 20 21 22	Q. A.	BRIEFLY DESCRIBE DAML EQUIPMENT AND WHEN BELLSOUTH UTILIZES IT. DAML equipment is designed for use over a copper facility. It uses ISDN technology to electronically derive additional loops over copper facilities in a manner similar to digital loop carrier. DAML provides a two-to-one pair gain for Plain Old Telephone Service (POTS) between
 17 18 19 20 21 22 23 	Q. A.	BRIEFLY DESCRIBE DAML EQUIPMENT AND WHEN BELLSOUTH UTILIZES IT. DAML equipment is designed for use over a copper facility. It uses ISDN technology to electronically derive additional loops over copper facilities in a manner similar to digital loop carrier. DAML provides a two-to-one pair gain for Plain Old Telephone Service (POTS) between the central office (CO) unit and a line powered remote unit (RU).
 17 18 19 20 21 22 23 24 	Q. A.	BRIEFLY DESCRIBE DAML EQUIPMENT AND WHEN BELLSOUTH UTILIZES IT. DAML equipment is designed for use over a copper facility. It uses ISDN technology to electronically derive additional loops over copper facilities in a manner similar to digital loop carrier. DAML provides a two-to-one pair gain for Plain Old Telephone Service (POTS) between the central office (CO) unit and a line powered remote unit (RU). DAML works over non-loaded copper loops with the same loop range

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1		in the switch and outputs a digital signal over the loop to the line
2		powered RU. The RU is wired to the Network Interface Device at the
3		end user's premises with two line appearances.
4		
5	Q.	IN WHAT CIRCUMSTANCES DOES BELLSOUTH DEPLOY DAML
6		EQUIPMENT?
7		
8	Α.	BellSouth deployes DAML equipment on a very limited basis to expand
9		a single loop to derive two digital channels, each of which may be used
10		to provide voice grade service. The deployment is limited to those
11		situations where loop facilities are not currently available for the
12		second voice grade loop. It is a temporary solution for provision of
13		service pending installation of facilities.
14		
15	Q.	SHOULD THE RATE FOR THE UNBUNDLED LOOP BE REDUCED
16		WHEN DAML EQUIPMENT IS USED?
17		
18	Α.	No. The use of DAML equipment is a means to meet a request for
19		service in a timely manner. It is not a more economic means of
20		meeting demand on a broad basis than using individual loop pairs. As
21		stated above, DAML provides a temporary solution for provision of
22		service. Supra apparently believes that loops utilizing DAML
23		equipment should be offered at a lower cost than other loops.
24		However, costs for unbundled loops have been calculated in
25		compliance with Federal Communications Commission rules on a

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1		forward-looking basis without regard to the manner in which the
2		customer is served (e.g., copper or digital loop carrier). Thus, the
3		unbundled loop rates the Florida Public Service Commission has
4		approved in the past and will establish in the current UNE cost docket
5		are appropriate and do not require any adjustment to recognize the
6		use of DAML equipment.
7		
8	Issue	e 28: What terms and conditions, and what separate rates if any,
9	shou	Id apply for Supra Telecom to gain access to and use BellSouth
10	facili	ties to serve multi-unit installations?
11		
12	Q.	HAS THE COMMISSION ALREADY ADDRESSED THE ISSUE OF
13		ACCESS TO BELLSOUTH'S FACILITIES IN MULTI-UNIT
14		INSTALLATIONS?
15		
16	Α.	Yes. The Commission first addressed this issue in the arbitration
17		proceedings between BellSouth and MediaOne in Docket 990149-TP.
18		More recently, the Commission addressed this issue in Docket No.
19	• •	990649-TP (the Generic UNE docket) and in Docket No. 000731-TP
20		(AT&T/BellSouth Arbitration).
21		
22	Q.	WHAT IS BELLSOUTH'S PROPOSAL FOR PROVIDING ACCESS TO
23		INTRA-BUILDING NETWORK CABLE (INC) AND/OR NETWORK
24		TERMINATING WIRE (NTW)?
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l Α. BellSouth will provide access to INC and/or NTW wire pairs as requested by the ALEC by terminating such pairs on separate 2 connecting blocks serving as an access terminal for the ALEC. 3 4 BellSouth currently has its own terminal in each garden apartment arrangement or high rise building. BellSouth will create a separate 5 access terminal for any building for which such service is requested. 6 With regard to garden apartments, BellSouth will prewire the 7 necessary pairs to serve each apartment on the access terminal 8 BellSouth builds. For garden apartments, this means that each cable 9 10 pair available to serve customers in that garden apartment building will appear on BellSouth's terminal and on the access terminal. An ALEC 11 wanting to serve a customer in the garden apartment situation would 12 build its terminal at that location and then wire its cable pair to the 13 appropriate prewired location on the access terminal. 14

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The treatment for high rise buildings will be different. BellSouth will still 16 build an access terminal to complement BellSouth's own terminal 17 located in the high rise building. The ALEC wanting to access those 18 facilities will still have to build its own terminal for its cable pairs. 19 However, rather than prewiring the access terminal, BellSouth 20 proposes that it will then receive orders from the ALEC and will wire 21 the access terminal it has created as facilities are needed by the 22 23 ALECs.

24

25 BellSouth does not propose to prewire every pair to the access

1		terminal in high rise buildings because it is simply impractical to do so.
2		The garden apartment terminal might have 20 to 25 loops terminated
3		on it, thus making prewiring the access terminal something that can be
4		done with a reasonable effort. On the other hand, high rise buildings
5		may have hundreds or even thousands of pairs, which would make
6		prewiring the access terminal impractical.
7		
8	Q.	HAS THIS COMMISSION ALREADY DECIDED THE ISSUE OF
9		WHETHER THERE SHOULD BE AN ACCESS TERMINAL IN BOTH
10		THE CASE OF GARDEN APARTMENTS AND HIGH RISE
11		BUILDINGS?
12		
13	Α.	Yes. This Commission has considered the issue of access to the sub-
14		loop element referred to as NTW in the arbitration proceedings
15		between BellSouth and MediaOne in Docket No. 990149-TP.
16		
17		This Commission denied MediaOne direct access to NTW and
18		required an access terminal to be placed between BellSouth's network
19	• • •	and MediaOne's network. The access terminal gives MediaOne the
20		access to NTW it desires without reducing network reliability and
21		security. BellSouth believes the underlying issues here (that is,
22		providing an ALEC unbundled access to INC while preserving network
23		reliability and security) are the same as were addressed in the
24		MediaOne arbitration cited above. This Commission determined that
25		MediaOne and others could gain access to unbundled NTW without

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1		reducing network security and reliability by adopting BellSouth's
2		proposed form of access. A portion of that Order follows:
3		
4		The record does not contain evidence of any case which would
5		support a proposal where one party is seeking to use its own
6		personnel to, in effect, modify the configuration of another
7		party's network without the owning party being present. We find
8		that MediaOne's proposal to physically separate BellSouth's
9		NTW cross-connect facility from BellSouth's outside distribution
10		cross-connect facilities is an unrealistic approach for meeting its
11		objectives. Therefore, BellSouth is perfectly within its rights to
12		not allow MediaOne technicians to modify BellSouth's network.
13		
14		Based on the evidence presented at the hearing, we believe
15		that it is in the best interests of the parties that the physical
16		interconnection of MediaOne's network be achieved as
17		proposed by BellSouth.
18		
19		BellSouth believes the use of access terminals as ordered by this
20		Commission gives ALECs the requested access to unbundled sub-loop
21		elements while still maintaining network reliability and security. Such
22		access should apply to all sub-loop elements, including access to INC.
23		
24	Q.	HOW DOES THIS RELATE TO THE ISSUE OF ACCESS TO FACILITIES IN
25		HIGH RISE BUILDINGS?

2 Α. Just as there was a very good reason to require an access terminal in the garden apartment situation, there is even a better reason to require 3 4 such an access terminal in high rise buildings, for the reasons I articulate below. Specifically, even in a simple residential garden 5 apartment situation, bridging the working pairs over to the access 6 terminal could, in fact, disturb working customers' services. In a 7 commercial high-rise building involving business customers with high-8 speed digital data services operating 24 hours per day, the problem is 9 even more acute. Any disturbance of a working circuit would cause 10 irreparable harm to existing services and subject BellSouth to lawsuits 11 and out-of-service claims. Furthermore, such interruptions could and 12 would be considered by some customers as a serious breach of 13 security. 14

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Further, and while I am in no way disparaging Supra's or any other 16 ALEC's technicians, with direct access it is possible for Supra's or 17 other ALECs' technicians to intentionally or unintentionally disrupt 18 BellSouth's and other ALECs' end user services. That simply presents 19 an unnecessary risk for all involved parties, end users, BellSouth, other 20 ALECs, and Supra itself (i.e., because such actions by some other 21 ALEC could have the same disrupting effect on existing sub-loop 22 elements that Supra is utilizing.) 23

24

Further, with direct access, BellSouth would be at Supra's and other I 2 ALECs' mercy to tell BellSouth how, when, where, and the amount of BellSouth's facilities that were being used. I will discuss the record 3 keeping issues involved below, but the bottom line is that such 4 uncontrolled access to these sub-loop elements would have a totally 5 debilitating effect on BellSouth's ability to maintain accurate cable 6 inventory records. It would be simply impossible for BellSouth to ever 7 have an accurate record of its facilities if every ALEC in the state had 8 direct access to these facilities. Of course, the lack of accurate 9 inventory information would result in imminent failure of BellSouth's 10 11 (and ALECs' using loops and sub-loop elements acquired from BellSouth) service provisioning, maintenance and repair processes. I 12 do want to be perfectly clear about this. What we are talking about 13 here, if Supra gets its way, is allowing technicians from any and every 14 ALEC in Florida to walk into an equipment room in a high rise building 15 and start appropriating pairs and facilities for its own use, without 16 consulting with anyone and without any obligation to keep appropriate 17 records so that the next person in the room knows what belongs to 18 whom. It doesn't take much imagination to know what a disaster this 19 would end up being for BellSouth and for the customers in the building 20 in question. It should be noted that any mechanized cable 21 management system (CMS) available in the telecommunications 22 market today has at its core the fundamental requirement that the 23 manager of the CMS maintain absolute and full control over cable pair 24

1 assignment. To do otherwise would result in chaotic failure of the 2 service delivery and maintenance system. 3 Q. PLEASE DISCUSS THE ISSUE YOU MENTIONED REGARDING 4 KEEPING RECORDS IF THE ALECS ARE ALLOWED TO WORK 5 DIRECTLY ON BELLSOUTH'S TERMINAL IN CIRCUMSTANCES 6 SUCH AS THOSE WE ARE TALKING ABOUT HERE. 7 8 9 Α. Keeping accurate records of what pairs are spare, working, or defective is critical to ensuring high quality service, both in provisioning 10 new or additional customer lines and in repairing existing customers' 11 service. In the case of INC, maintaining accurate inventory records is 12 especially critical. NTW records consist generally as paper tags or 13 records for each pair of wires that are present at the NTW garden 14 terminal. A technician can usually determine the use to which a 15 particular pair is being put while on-site either via the tag or by 16 17 electrically testing the NTW. However, such "intrusive testing" by electrically testing the NTW is the cause of disturbance on the line. 18 This is because such intrusive testing cannot be done without 19 interrupting existing line transmissions. Such disturbances can quickly 20 lead to end user dissatisfaction. 21 22 INC cable records are even more problematic because they are 23 mechanized records not available at the access terminal. As 24 mechanically inventoried records, individual assignments of INC pairs 25

ł are made as orders for service are processed. Should particular INC 2 pairs become unusable, a notation is made in the records system so that the pairs are not assigned as the need arises for additional pairs. 3 Thus, a field technician has no way of using particular INC pairs 4 without risking disruption of service to existing end users. As I 5 discussed earlier, using a test set to determine whether the cable pair 6 is in use would disrupt an in-progress transmission. Utilizing INC pairs 7 at random could result in taking an existing end user out of service, or 8 in having the new end user's service be inoperable because of a faulty 9 INC pair. Should a technician by chance choose a spare INC pair and 10 successfully install the end user's service, there is no means of 11 protecting that service from potential disruptions resulting from the next 12 technician entering that work area, no matter whether that technician is 13 employed by BellSouth, Supra, or another ALEC. As subsequent 14 technicians enter the work scene, the existing INC cable pair records 15 would progressively deteriorate, creating an immediate and significant 16 service problem that would be extremely costly and difficult to correct. 17 18 The bottom line is that allowing an ALEC's technician to try to locate 19 spare facilities to provide service will result in service degradation and 20

- chaotic service provisioning by all carriers.
- 22

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Q. ARE THERE OTHER CONCERNS TO REPORTING AND
 INVENTORY WITH RESPECT TO THIS ISSUE?

25

1	Α.	Yes, and these comments go directly to the heart of the issue of
2		whether a BellSouth technician will be allowed to place the tie cables
3		for the ALEC between the BellSouth terminal and the access terminal
4		created for the use of the ALECs. Without the involvement of a
5		BellSouth technician, BellSouth will have no way of knowing who is
6		using what pair and who should be paying for what pair. It would be
7		entirely possible for an ALEC to provide service over a pair without
8		BellSouth ever knowing that it should charge the ALEC.
9		
10		Therefore, as it did with the garden terminals, BellSouth proposes to
11		construct an access terminal. However, it is simply not feasible to
12		prewire every cable pair in every high rise building to the access
13		terminal. Unlike the situation with the garden terminals, there can be
14		hundreds or even thousands of pairs in a high rise building. What
15		BellSouth proposes therefore, is that it not prewire every cable pair, but
16		rather that it be allowed to take orders from the ALECs to prewire just
17		what each ALEC needs, as the ALEC needs the facilities.
1 8		
19	Q	HAVE YOU PREPARED AN EXHIBIT WHICH ILLUSTRATES
20		BELLSOUTH'S PROPOSAL REGARDING SUB-LOOP UNBUNDLING
21		IN A MULTI-STORY BUILDING?
22		
23	Α.	Yes. Exhibit NDT-1, which is attached to this testimony, contains three
24		(3) pages that I hope will aid in understanding this issue. Page 1
25		shows a typical serving arrangement in multi-story buildings for which

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1		BellSouth is, at present, the sole provider of telephone service. Page 2
2		shows BellSouth's proposed form of access for an ALEC to the sub-
3		loop elements INC and NTW. BellSouth proposes the use of an
4		access terminal that is cross-connected by tie cable with the terminals
5		of both BellSouth and the ALEC. The access terminal for unbundled
6		INC (UINC) and the access terminal for unbundled network terminating
7		wire (UNTW) access could also serve as a single point of
8		interconnection for use by multiple carriers. Page 3 shows the typical
9		access to UNTW in a "garden" apartment complex. The point to be
10		made here is that the access terminal is cross-connected by tie cable
11		pairs with the terminals of both BellSouth and the ALEC thus allowing
12		an ALEC access while preserving network reliability and security.
13		
14	Q.	WHAT SOLUTION TO THIS ISSUE DOES BELLSOUTH PROPOSE?
15		
16		BellSouth believes the Commission should affirm that the appropriate
1 7		method is to require BellSouth to construct an access terminal for
18		access to NTW or INC pairs as may be requested by an ALEC. Supra
19		(or another ALEC) would interconnect its network to these constructed
20		access terminals. Such a methodology would permit Supra
21		appropriate access to end users while providing both companies the
22		ability to maintain appropriate records on an on-going basis.
23		
24	Issue	• 33: What are the appropriate means for BellSouth to provide
25	unbu	ndled local loops for provision of DSL service when such loops are

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provisioned on digital loop carrier facilities?

- 2 Q. WHAT IS YOUR UNDERSTANDING OF THE DISAGREEMENT 3 BETWEEN SUPRA AND BELLSOUTH CONCERNING ISSUE 33? 4 5 6 Α. My understanding is that BellSouth and Supra have not reached agreement as to BellSouth's obligations in cases where a given end 7 user's loop is provided over equipment referred to as Digital Loop 8 Carrier and that end user wants Digital Subscriber Line (xDSL) service 9 which is incompatible with the DLC serving that end user. BellSouth is 10
- willing to provide two solutions that will allow Supra to provide xDSL
 services in such a situation.
- 13

14 Q. WHAT ARE THE TWO SOLUTIONS BELLSOUTH AGREES TO15 PROVIDE TO SUPRA?

16

The first solution is to move the end user to a loop that is suitable for Α. 17 xDSL service. For example, if the end user is served via DLC but a 18 spare copper loop is available to the end user's premises, BellSouth 19 agrees to move the end user to the copper loop that is capable of 20 supporting xDSL services. BellSouth provides access to all its loops 21 on an unbundled basis including those loops served by DLC 22 equipment. BellSouth has developed a number of different methods 23 for providing such unbundled access, thus ensuring that each and 24 every BellSouth loop can be provided on an unbundled basis 25

1		regardless of whether the end user (when that end user was a
2		BellSouth customer) is served via DLC.
3		
4		The second solution is to allow Supra to collocate its Digital Subscriber
5		Line Access Multiplexer (DSLAM) in the remote terminal housing the
6		DLC and give Supra access to the unbundled network element
7		referred to as loop distribution. BellSouth agrees that in any case
8		where it has installed its own DSLAM in a given remote terminal,
9		BellSouth will accommodate collocation requests from Supra or any
10		other ALEC even if that means that room inside the remote terminal
11		must be augmented or that the remote terminal itself must be
12		expanded or replaced to make room for Supra's or another ALEC's
13		DSLAM.
14		
15	Q.	AT WHAT POINTS IN THE NETWORK WILL BELLSOUTH ALLOW
16		SUPRA ACCESS TO THE HIGH FREQUENCY PORTION OF THE
17		LOOP?
18		
19	A	BellSouth will provide to Supra unbundled access to the high
20		frequency portion of the loop at the remote terminal as well as at the
21		central office. This arrangement is referred to as line sharing.
22		BellSouth proposes that Supra could collocate its DSLAM equipment
23		at the remote terminal and BellSouth would provide a "splitter" at that
24		same remote terminal.
25		

- Q.
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WHAT IS A SPLITTER?

Α. Splitters are used to separate the low frequency signals (that is, the 3 voice service that BellSouth would continue to provide to the customer) 4 from the high frequency signal (that is, the xDSL data traffic). The low 5 frequency portion of the local loop spectrum is routed to the voice 6 switch via the DLC equipment. The splitter routes the high frequency 7 portion of the circuit to the ALEC's xDSL equipment located in its 8 collocation space at the serving wire center or the remote terminal. 9 10 WHAT SOLUTION TO THIS ISSUE DOES BELLSOUTH PROPOSE? Q. 11 12 Α. This Commission should affirm that BellSouth has met its obligations 13 for providing access to unbundled loops including the high frequency 14 portion and for collocation in its remote terminals. 15 16 Issue 34: What coordinated cutover process should be implemented to 17 ensure accurate, reliable, and timely cutovers when a customer changes 18 local service from BellSouth to Supra? 19 20 WHAT IS BELLSOUTH'S POSITION ON THIS ISSUE? 21 Q. 22 The coordinated cutover process proposed by BellSouth ensures Α. 23 accurate, reliable, and timely cutovers. No changes in this process are 24 necessary or appropriate at this time. 25

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2	Q.	PLEASE PROVIDE THE COMMISSION WITH SOME IDEA OF WHAT
3		IS INVOLVED IN PERFORMING A LOOP CUTOVER.
4		
5	Α.	I have provided Exhibit NDT-2, which is attached to my testimony, that
6		shows, pictorially and with a brief narrative, the various work steps
7		involved in a typical loop cutover. These photographs were taken in
8		BeilSouth's Norcross, Georgia, central office; however, the work steps
9		are identical in all nine states in BellSouth's region. Briefly, the work
10		steps involved are as follows:
11		The BellSouth central office technician receives a call to begin
12		cutover and asks for the cable pair number of the loop to be
13		cutover. This is shown on page 1 of Exhibit NDT-2.
14		• The technician types the cable pair number into a database to find
15		the loop cutover work order number. This is shown on page 2 of
16		Exhibit NDT-2.
17		• The technician retrieves a copy of the work order for the unbundled
18		loop. This is shown on page 3 of Exhibit NDT-2.
19	· ·	The technician in the BellSouth central office responds to the
20		BellSouth UNE Center's request to initiate coordination of the
21		overall cutover of service from BellSouth to the ALEC. This is
22		shown on page 4 of Exhibit NDT-2.
23		The technician then verifies that the correct loop has been identified
24		for cutover. This is done using a capability referred to as Automatic
25		Number Announcement Circuit ("ANAC"). The technician attaches

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1	·	a test set onto the loop and dials a special code. The telephone
2		number associated with that loop is played audibly. This is shown
3		on page 5 of Exhibit NDT-2.
4	٠	Next, the technician locates the existing jumper on the BellSouth
5		Main Distributing Frame ("MDF") running between the loop and the
6		BellSouth switch port. This is shown on pages 6-7 of Exhibit NDT-
7		2.
8	•	The technician locates and removes the end of the jumper
9	,	connected to the BellSouth cable pair. This is shown on page 8 of
10		Exhibit NDT-2.
11	٠	The technician then locates and removes the end of the jumper
12		connected to the BellSouth switching equipment. This is shown on
13		page 9 of Exhibit NDT-2.
14	٠	The technician then connects the one end of a new jumper
15		between the loop and a connector block on a cable rack with tie
16		cables to the ALEC's collocation arrangement. This is shown on
17		page 10 of Exhibit NDT-2.
18	٠	The technician then weaves the new jumper wire through the cable
19	• •	rack to reach the tie cables to the ALEC's collocation arrangement.
20		This is shown on page 11 of Exhibit NDT-2.
21	٠	The technician connects the second end of the new jumper to the
22		connector block and thus the tie cable to the ALEC's collocation
23		equipment. This is shown on page 12 of Exhibit NDT-2.
24	٠	The technician next verifies that the loop is connected to the
25		expected switch port and telephone number in the ALEC's switch,

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- 1again using ANAC capabilities. This is shown on page 13 of Exhibit2NDT-2
 - Upon successful completion of the loop cutover, the technician verifies with the ALEC that the order was correctly worked, closes the work order, and notifies the UNE Center. This is shown on page 14 of Exhibit NDT-2.
- Naturally, any errors (both BellSouth's errors and the ALEC's errors) 8 9 slow the process while corrections are identified and made. While BellSouth should clearly be responsible for its own errors, it should not 10 be held responsible for delayed cutovers due to problems or errors 11 12 caused by the ALEC. It is obvious from the many steps that have to be taken to correctly perform a loop cutover that the timeframe 13 appropriate for a single loop would not be a reasonable timeframe for a 14 multiple loop cutover for a large end-user such as a major bank or 15 manufacturing firm as most of the individual work steps must be 16 repeated for each loop to be converted. 17
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19 Q. IS BELLSOUTH IN TOTAL CONTROL OF THE LOOP CUTOVER 20 PROCESS?

- 21
- A. No. As discussed above, loop cutovers require high levels of
 coordination between BellSouth and the ALEC to which the unbundled
 loop is being provided. If an ALEC fails to perform a function in a
 timely fashion, the delay directly impacts the overall cutover time.

1		to have been experienced by Supra end users.
2		
3		BellSouth uses a very detailed process for conversion of live local
4		service and uses these same procedures across the region for all
5		ALECs with a high level of success.
6		
7	Q.	HAS BELLSOUTH DOCUMENTED ITS HOT CUT PROCESS?
8		
9	Α.	Yes. BellSouth has created a detailed flow chart depicting the entire
10		process. This process flow is attached to this testimony as Exhibit
11		NDT-3.
12		
13	Q.	WHAT SOLUTION TO THIS ISSUE DOES BELLSOUTH PROPOSE?
14		
15	Α.	This Commission should affirm that BellSouth uses a very detailed
16		process for conversion of live local service and that no changes in the
17		process are necessary. These same procedures are used with a high
18		level of success across the region for all ALECs. BellSouth has
19	• • •	proposed language that supports these detailed process flows and
20		provides additional support of BellSouth's commitment to provide
21		coordinated conversions to Supra which afford a meaningful
22		opportunity for Supra to compete for local service. BellSouth's
23		processes provide for a conversion that should ensure a smooth
24		transition for an end user electing to change local service providers
25		from BellSouth to Supra with minimal end user service interruption.

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2	Q.	DESCRIBE THE SPECIFIC SECURITY CHECKS BELLSOUTH
3		REQUIRES OF ITS EMPLOYEES, VENDORS, AND OTHER
4		AGENTS THAT ARE IN EFFECT TODAY.
5		
6	A.	BellSouth requires a seven (7) year criminal background check for all
7		of its employees prior to hiring, and a five (5) year criminal background
8		check for vendors and agents.
9		
10	Q.	ARE THERE ANY OTHER SPECIFIC REQUIREMENTS THAT THE
11		ALEC SHOULD CONSIDER WHEN ASSIGNING VENDORS AND
12		AGENTS TO BELLSOUTH'S PREMISES?
13		
14	A.	Yes. The ALEC should not knowingly assign to BellSouth's premises
15		any individual who was a former employee of BellSouth and whose
16		employment with BellSouth was terminated for a criminal offense
17		whether or not BellSouth sought prosecution of the individual for the
18		criminal offense.
19	· .	
20		Also, the ALEC should not knowingly assign to BellSouth's premises
21		any individual who was a former contractor of BellSouth and whose
22		access to BellSouth's premises was revoked due to commission of a
23		criminal offense whether or not BellSouth sought prosecution of the
24		individual for the criminal offense.
25		

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Q. DOES BELLSOUTH MEET THE FCC'S REQUIREMENT THAT
 PERMITS COLLOCATORS DIRECT ACCESS TO ITS EQUIPMENT
 WITHOUT BEING ESCORTED BY BELLSOUTH PERSONNEL AND
 WITHOUT THE COLLOCATOR'S EQUIPMENT BEING PHYSICALLY
 SEPARATED BY A WALL OR OTHER STRUCTURE FROM
 BELLSOUTH'S EQUIPMENT OR THE EQUIPMENT OF OTHER
 ALECS?

8

Α. Yes. However, the FCC's Order raises serious concerns that must be 9 addressed in order to retain the level of network reliability and security 10 that currently exists and which end users and regulators have come to 11 expect. BellSouth has addressed those concerns and is compliant 12 with the FCC's requirements. A simple reading of today's newspaper 13 headlines reveals the need for stringent control over the access to and 14 operation of the public telephone network. In order to provide 15 reasonable security measures, BellSouth requires that all collocators' 16 employees and agents undergo the same level of security training, or 17 its equivalent, that BellSouth's own employees, or third party 18 contractors providing similar functions, must undergo. Each collocator 19 must provide its employees and agents with picture identification, 20 which must be worn and be visible in the collocation space or other 21 areas in and around BellSouth's central offices. In its Order, the FCC 22 permitted incumbent LECs to impose security arrangements that are 23 as stringent as the security arrangements the incumbent LEC 24 maintains at its premises for its own employees. BellSouth is not 25

1		requiring ALECs to perform a seven (7) year criminal background
2		investigation, as it does for its own employees. Rather, BellSouth
3		requires only a five (5) year criminal background check of BellSouth's
4		vendors and agents and for collocators' employees or agents.
5		Collocators are required to conduct an investigation of criminal history
6		records for each of the collocator's employees and agents being
7		considered for work within or upon BellSouth's premises. Restrictions
8		are imposed on a collocator's employees or agents with felony or
9		misdemeanor criminal convictions. Also, the FCC's Order provides for
10		additional security measures such as allowing BellSouth to provide a
11		cage around its own equipment. Thus, BellSouth is in compliance with
12		the security provisions required by the FCC's Order.
13		
14	Q.	DOES BELLSOUTH REQUIRE THAT SUPRA PERFORM SECURITY
15		CHECKS OF ALL ITS EMPLOYEES?
1 6		
17	Α.	No. BellSouth is indifferent to the security measures and background
18		checks Supra makes for its employees to access its own buildings.
19		However, BellSouth is rightly concerned for proper security measures
20		and background criminal checks for those of Supra's employees for
21		which Supra wants unescorted access to BellSouth's premises. If
22		Supra doesn't want to perform background criminal checks of all of its
23		employees, it need only check those of its employees it wants admitted
24		to BellSouth's premises.

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1	Q.	IS THE CRIMINAL BACKGROUND CHECK PROPOSED BY
2		BELLSOUTH EFFECTIVE IN LIMITING OR RESTRICTING A
3		WORKER FROM HARMING OR DAMAGING PROPERTY?
4		
5	A.	Yes. Criminal background checks are a reasonable way to prevent
6		known criminals from even being in a place where they could cause
7		harm or damage to BellSouth's or an ALEC's network
8		
9	Q.	DOES BELLSOUTH'S PROPOSAL IMPOSE DISCRIMINATORY
10		SECURITY REQUIREMENTS ON SUPRA THAT IT DOES NOT
11		IMPOSE ON ITSELF?
12		
13	Α.	No. Incumbent Local Exchange Carriers (ILECs) such as BellSouth
14		are entitled under the FCC's order to "impose reasonable security
15		arrangements to protect their equipment and ensure network security
16		and reliability." Advanced Services Order at paragraph 46. That is all
17		BellSouth's policy is meant to do. Again, BellSouth believes a simple
18		reading of today's newspaper headlines is sufficient to underscore the
19	· · .	public's need for secure, reliable communications. BellSouth's security
20		policies are a reasonable balance between giving ALECs unfettered
21		access to BellSouth's premises while maintaining network reliability
22		and security.
23		
24	Q.	WHAT SOLUTION TO THIS ISSUE DOES BELLSOUTH PROPOSE?
25		

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1	A.	This Commission should adopt BellSouth's proposed background
2		security check measures for those of Supra's employees who will have
3		unescorted access to BellSouth's premises.
4		
5	lssue	40: Should Standard Message Desk Interface - Enhanced ("SMDI-
6	E") ai	nd Inter-switch Voice Messaging Service ("IVMS"), and any other
7	согге	sponding signaling associated with voice mail messaging be
8	inclu	ded within the cost of the UNE switching port?
9		
10	Q.	WHAT IS STANDARD MESSAGE DESK INTERFACE-ENHANCED
11		(SMDI-E)?
12		
13	Α.	SMDI-E provides a means of passing information between the end
14		office switch serving a particular end user and a voice messaging
15		(voicemail) service platform. For example, stutter dialtone may be
1 6		used to alert the end user that unheard messages are in the end user's
17		voice messaging mailbox. Once the end user accesses the voice
18		messaging service and retrieves any unheard messages, the voice
19	• •	messaging platform and the end office switch communicate via SMDI-
20		E links that result in the end office switch removing the stutter dialtone
21		indicator.
22		
23	Q.	WHAT IS INTER-SWITCH VOICE MESSAGING SERVICE (IVMS)?
24		
25	Α.	IVMS likewise provides a means of passing information between the

- end office switch serving a particular end user and a voice messaging
 platform.
- 3

4 Q. WHAT IS BELLSOUTH'S POSITION REGARDING THE PROVISION 5 OF SMDI-E AND IVMS TO SUPRA?

6

If Supra's end user is provisioned via unbundled local switching 7 Α. acquired from BellSouth and that end user subscribes to Supra's 8 voicemail and messaging services, BellSouth will redirect incoming 9 calls to the Supra voicemail or messaging service platform over 10 dedicated trunk facilities provided by Supra. Where BellSouth's 11 switches have the capability, BellSouth will provide SMDI-E and IVMS 12 to Supra at the rates specified in BellSouth's General Subscriber 13 Services Tariff (GSST). 14

15

SMDI-E and IVMS are used to provide an information service (that is,
 voice messaging) rather than to provide a telecommunications service.
 The Act defines "information service" as follows:

19

20The term 'information service' means the offering of a capability21for generating, acquiring, storing, transforming, processing,22retrieving, utilizing, or making available information via23telecommunications, and includes electronic publishing, but24does not include any use of any such capability for the25management, control, or operation of a telecommunications

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1		system or the management of a telecommunications service.
2		Section 3(a)41.
3		To my knowledge, Supra does not dispute that voice messaging
4		service is an information service rather than a telecommunications
5		service. Accordingly, and while I am not a lawyer, my reading of the
6		Act does not obligate BellSouth to provide SMDI-E or IVMS to Supra at
7		TELRIC rates (i.e., as part of the unbundled switch port) in order for
8		Supra to construct its information services platform.
9		
10	Q.	WHAT SOLUTION TO THIS ISSUE DOES BELLSOUTH PROPOSE?
11		
12	Α.	This Commission should affirm that Supra may acquire SMDI-E and
13		IVMS functionality, where available, at the rates set forth in BellSouth's
14		tariff.
15		
16	Issue	No. 53: Should BellSouth have the right to determine unilaterally
17	the de	emarcation points for access to UNEs?
18		
19	Q	WHAT IS BELLSOUTH'S POSITION REGARDING WHICH PARTY,
20		THAT IS, BELLSOUTH OR SUPRA, SHOULD DETERMINE THE
21		DEMARCATION POINT FOR ACCESS TO UNEs?
22		
23	А.	For the reasons discussed below, BellSouth believes that BellSouth
24		has the right to designate the point of demarcation.
25		

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Q. WHY DOES BELLSOUTH BELIEVE IT HAS THE RIGHT TO DESIGNATE THE DEMARCATION POINT?

Α. There is nothing in the 1996 Act or the FCC Rules that allows the 4 ALEC to choose the point of demarcation on the ILEC's network. 5 Thus, BellSouth has the authority to determine the demarcation point 6 within its central offices for ILECs that choose collocation as their 7 method of interconnecting with BellSouth's network. This is meant to 8 9 ensure that space is efficiently administered to the greatest benefit of BellSouth and all collocators. The District of Columbia Circuit Court of 10 Appeals recently addressed the issue of which party (that is, the ILEC 11 or the ALEC) has the right to designate where collocation occurs in the 12 ILEC's premises. The Court determined that to permit the ALEC to 13 designate where collocation occurs in an ILEC's premises may amount 14 to an unnecessary taking of an ILEC's premises. The right to 15 designate the collocation site (that is, where within the BellSouth 16 central office a given collocation arrangement will be located) and to 17 designate where that collocation arrangement terminates falls squarely 18 within BellSouth's responsibility and is essential if BellSouth is to · · . 19 control and manage the space within its central offices in the most 20 efficient manner and to the benefit of all ALECs. 21

22

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Q. WHAT IS BELLSOUTH'S POSITION ON WHERE IS THE
 APPROPRIATE POINT OF DEMARCATION BETWEEN SUPRA'S
 NETWORK AND BELLSOUTH'S NETWORK?

l		
2	Α.	Each party should be responsible for maintenance and operation of all
3		equipment/facilities on its side of the demarcation point. For 2-wire
4		and 4-wire connections to BellSouth's network, the demarcation point
5		should be a common block on the BellSouth designated conventional
6		distributing frame (CDF). The ALEC should be responsible for
7		providing, and the ALEC's Certified Vendor should be responsible for
8		installing and properly labeling/stenciling, the common block and
9		necessary cabling to the established demarcation point. For all other
10		terminations, BellSouth shall designate a demarcation point on a per
11		arrangement basis. This is the same location BellSouth would
12		terminate its own similar equipment. Moreover, Supra has complete
13		access to the distributing frame for maintenance purposes.
14		
15	Q.	IS THE POINT OF TERMINATION (POT) BAY OR FRAME AN
16		APPROPRIATE DEMARCATION POINT?
17		
18	Α.	No. As discussed above, BellSouth should be permitted to designate
19	• • •	the appropriate demarcation point, which is normally the distributing
20		frame as discussed earlier. Supra may choose to use a Supra
21		provided POT bay within its collocation space as an intermediary
22		device but it should not serve as the demarcation point.
23		
24	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
25		

A. Yes.

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Typical existing serving arrangement

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Typical access to unbundled network terminating wire

BellSouth Telecommunications, Inc. **Florida Public Service Commission** Docket No. 001305-TP **Exhibit NDT-1**

Step 1: Technician gets call to begin cutover. Asks for cable pair information.

BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 1 of 14



Step 2: Technician types in cable pair number to obtain order number.

BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 2 of 14



BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 3 of 14

LOOP CUTOVER PROCESS

Step 3: Technician retrieves copy of work order.



Step 4: Technician responds to UNE Center request to initiate overall cutover of service from BellSouth to ALEC.

BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 4 of 14



Step 5: Technician conducts ANAC test to verify that correct loop is being cutover.

BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 5 of 14



Step 6: Technician walks along Main Distributing Frame to locate both ends of jumper to be cut. BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 6 of 14



Step 7: Technician locates precise location of jumper.

BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2



Step 7: Technician locates precise location of jumper.

BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2



Step 8: Technician locates and removes end of jumper connected to the BellSouth cable pair.

BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 8 of 14



Step 8: Technician locates and removes end of jumper connected to the BellSouth cable pair.

BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 8 of 14



BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 9 of 14

LOOP CUTOVER PROCESS

Step 9: Technician locates and removes end of jumper connected to the switching equipment.



BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 10 of 14

LOOP CUTOVER PROCESS Step 10: Technician places new jumper on MDF.

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Step 11: Technician weaves wire through cable rack to reach tie cable to ALEC's collocation equipment.

BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 11 of 14



Step 11: Technician weaves wire through cable rack to reach tie cable to ALEC's collocation equipment.

BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 11 of 14



BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 12 of 14

LOOP CUTOVER PROCESS Step 12: Technician connects new jumper on frame to tie cables to ALEC equipment.

Step 13: Technician conducts ANAC test to verify that loop has been cut to correct ALEC switch port.

BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 13 of 14



BellSouth Telecommunications, Inc. Florida Public Service Commission Docket No.001305-TP Exhibit NDT-2 Page 14 of 14

LOOP CUTOVER PROCESS

Step 14: Technician verifies cutover with ALEC, closes order, and notifies the UNE Center.



BellSouth Telecommunications, Inc. FPSC Docket No. 001305-TP Exhibit NDT-3 Page 1 of 3

LISSUE 2, Coordinated Hot Cut Process

Assumption: Non-Complex, Designed Unbundled Voice Loop, CO Conversion, with LNP



FPSC Docket No. 001305-TP Exhibit NDT-3 Page 2 of 3

Coordinated Hot Cut Process

Assumption: Non-Complex, Designed Unbundled Voice Loop, CO Conversion, with LNP



*Note: Within some contracts, UNEC should call CLEC Rep 24 hours before Cut. If call is not made, CLEC will call UNEC.

FPSC Docket No. 001305-TP Exhibit NDT-3 Page 3 of 3

Coordinated Hot Cut Process

Assumption: Non-Complex, Designed Unbundled Voice Loop, CO Conversion, with LNP



Critical Dates used internally by BellSouth

Service Issue Date Line Assign Made Design Verify Assign Wire Office Toll Frame Completion Date Plant Test Date Due Date

Note: When an order is issued (SID),pseudo order drops to WFA-C to alert UNE Center. Order is screened until designed, then loaded to a UNE technician. The UNE technician will begin testing and verification activity within 24-48 hours prior to the scheduled Due Date.