BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION 2 3 In the Matter of DOCKET NO. 990649-TP 4 INVESTIGATION INTO PRICING 5 OF UNBUNDLED NETWORK ELEMENTS. 6 7 8 ELECTRONIC VERSIONS OF THIS TRANSCRIPT ARE A CONVENIENCE COPY ONLY AND ARE NOT 9 \* THE OFFICIAL TRANSCRIPT OF THE HEARING AND DO NOT INCLUDE PREFILED TESTIMONY. 10 11 12 VOLUME 5 13 Pages 675 through 831 14 PROCEEDINGS: HEARING 15 BEFORE: CHAIRMAN J. TERRY DEASON 16 COMMISSIONER E. LEON JACOBS, JR. COMMISSIONER LILA A. JABER 17 DATE: Monday, July 17, 2000 18 TIME: Commenced at 9:30 a.m. 19 PLACE: Betty Easley Conference Center 20 Room 148 4075 Esplanade Way 21 Tallahassee, Florida 22 REPORTED BY: JANE FAUROT, RPR FPSC Division of Records & Reporting 23 Chief, Bureau of Reporting (850) 413-6732 24 APPEARANCES: (AS HERETOFORE NOTED.) 25 DOCUMENT NUMBER-DATE

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FLORIDA PUBLIC SERVICE COMMISSION

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### PROCEEDINGS

MS. KEATING: Next is AT&T and MCI WorldCom's Witness King.

CHAIRMAN DEASON: Witness King's prefiled testimony shall be inserted into the record without objection.

MS. KEATING: And I don't believe that Witness King had any exhibits. No, Witness King did not have any exhibits.

FLORIDA PUBLIC SERVICE COMMISSION

1		DIRECT TESTIMONY OF
2		JEFFREY KING
3		ON BEHALF OF
4	AT	&T COMMUNICATIONS OF THE SOUTHERN STATES, INC. AND
5		MCI WORLDCOM, INC.
6		DOCKET NO: 990649-TP
7		
8		
9	Q.	PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND
10		TITLE.
11	A.	My name is Jeffrey King and my business address is 1200
12		Peachtree Street, N.E., Atlanta, Georgia 30309. I am employed by
13		AT&T as a District Manager in the Local Services & Access
14		Management organization.
15		
16	Q.	BRIEFLY OUTLINE YOUR EDUCATIONAL BACKGROUND AND
17		BUSINESS EXPERIENCE IN THE TELECOMMUNICATIONS
18		INDUSTRY.
19	A.	I received a Bachelor of Arts degree in Business Administration
20		with a concentration in Industrial Administration from the University
21		of Kentucky, Lexington, KY, in 1983. I joined AT&T's Access
22		Information Management organization in April of 1986 and my
23		assignment included the development and testing of the ordering

and inventory Access Capacity Management System (ACMS) for electronically interfacing High Capacity access orders with incumbent local exchange carriers (ILECs). I worked closely with the Ordering & Billing Forum (OBF) to insure industry standard specifications were implemented and enforced by quality control edits to maintain the integrity of the data. I joined the Integrated Access Planning and Implementation organization in August of 1990 and performed the national ACMS User Representative role for implementing Business Unit requirements, enhancements, Methods & Procedures, and training. This work function also required subject matter expertise of the processes to plan, provision and utilize special access circuits and facilities in order to optimize the effectiveness of AT&T's operational support systems (OSS) to manage these processes. I joined the Access Management organization in December of 1992 and managed customer/supplier relations on Interstate access price issues, including access charge impacts and tariff, terms and conditions analysis, with BellSouth Telecommunications, Inc. and Sprint LTD. In addition, my responsibilities included ILEC cost study analysis.

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I began supporting AT&T's efforts to enter the local services market with the implementation of the Telecommunications Act of 1996. In particular, I support AT&T's efforts to obtain cost-based non-recurring rates for CLEC requests of unbundled network

elements (UNEs) from ILECs by analyzing ILEC non-recurring cost studies and the AT&T/MCI Non-Recurring Cost Model. I also interface with subject matter experts ("SMEs") on the efficient processes and practices of ordering and provisioning UNEs based on a least-cost, forward looking telecommunications infrastructure. My organization also supports the cost models, such as the HAI Model, to develop the recurring costs (i.e., capital expenditure) to efficiently support the telecommunications infrastructure.

In July of 1998 my responsibilities increased. I am now responsible for analyzing the cost and recommending all cost-based prices charged by ILECs. My responsibilities also include managing access charges paid by AT&T to ILECs in the nine state BellSouth territory. Specifically, I advocate cost-based rates for access to the ILECs' networks for the purpose of originating and terminating local and toll traffic. Indeed, UNEs comprise the same elements of the telecommunications network as offered by BellSouth, and other ILECs, for access services.

# Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY STATE PUBLIC SERVICE COMMISSIONS?

21 A. Yes, I have testified on behalf of AT&T in Alabama, Georgia, North
22 Carolina, Tennessee, Mississippi and Puerto Rico.

1	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
2	A.	I will address the following list of issues:
3		Issue 5: For which signaling networks and call-related
4		databases should rates be set?
5		Issue 6: Under what circumstances, if any, is it appropriate to
6		recover non-recurring costs through recurring rates?
7		Issue 13: When should the recurring and non-recurring rates a
8		charges take effect?
9		
10	Q.	ISSUE 5: FOR WHICH SIGNALING NETWORKS AND CALL-
l <b>1</b>		RELATED DATABASES SHOULD RATES BE SET?
12	A.	FCC Rule 319(e) requires ILECs to provide access to signaling
13		networks, call-related databases, and service management
14		systems on an unbundled basis. The following list of UNEs show
15		have rates established:
16		Common Channel Signaling System 7 (CCS7) Transport,
17		including Signaling Transfer Points (STP)
18		Toll Free Calling Database (i.e., 800)
19		Line Information Data Base (LIDB)
20		Calling Name Database (CNAM)
21		911/E911 Database
22		Local Number Portability (LNP)
23		Advanced Intelligent Network Database (AIN)

1		Directory Assistance Database (DA)
2		Daily Usage Information (e.g., ADUF, ODUF, EODUF)
3		As the industry evolves additional databases may be required for
4		which future cost-based rates should also be established.
5		
6	Q.	ISSUE 6: UNDER WHAT CIRCUMSTANCES, IF ANY, IS IT
7		APPROPRIATE TO RECOVER NON-RECURRING COSTS
8		THROUGH RECURRING RATES?
9	A.	Non-recurring costs are the efficient, one-time costs associated
10		with establishing, disconnecting or rearranging unbundled network
11		elements purchased from an ILEC at the request of a customer
12		(e.g., ALEC). Non-recurring cost activities are those that only
13		benefit the ALEC requesting the elements such as the Ordering
14		and Provisioning processes. One thing that needs to be
15		remembered is that nonrecurring charges must adhere to TELRIC
16		principles. Often, in these UNE cases, nonrecurring charges are
17		based on the activities the ILEC has incurred in the past. This
18		methodology may not be TELRIC. According to TELRIC rules,
19		non-recurring charges must be based on the activities the ILEC
20		should incur if it was operating in a forward-looking least cost most
21		efficient manner. If this principle is maintained most of the

concerns about excessive nonrecurring charges that may create a

barrier to entry go away and any competitive based need to recover TELRIC nonrecurring costs through recurring rates is eliminated.

Further, if the activity being performed is a one-time activity, but has the potential to benefit all future users of a particular telecommunications facility, the costs of the activity typically are characterized as recurring. The cost of constructing a loop is one example. Proper allocation of one-time costs is particularly important in a competitive environment where more than one local exchange carrier including the ILEC may use a particular facility at different points in that facility's lifetime. If all the forward-looking costs of a one-time activity benefiting multiple users are borne by the first telecommunications provider to use the facility, then obviously the first user will be forced to pay more than its fair share.

As is the case with network elements in general, the Commission should ensure that NRCs are not structured in a manner that forces new entrants to pay for costs that they do not cause. Presently, for example, ILECs commonly "disconnect" unbundled network elements by software command only (i.e., without physical disconnection of any sort). This activity is referred to as 'soft dial tone' and requires no manual provisioning work. Yet, the non-recurring installation charges ILECs propose to charge new entrants invariably reflect the costs of physical reconnection, regardless of whether the facilities in question were ever physically

disconnected in the first instance. Structuring NRCs so that new entrants must pay for costs that the incumbent will not actually incur is yet another means by which ILECs can erect excessive competitive barriers to competition. Modeling costs that reflect the elimination of such proposals not only minimizes initial barriers to entry, but also closely links cost recovery with the manner in which the costs are actually incurred.

To the extent that the Commission determines a non-recurring charge to exceed a threshold for competitive entry, a pricing policy decision would be warranted for the recovery of this cost either (1) from a term payment plan (e.g., pay \$700 NRC over 12 months via installment payments), or (2) by including the average non-recurring cost within the cost structure being recovered from affected recurring UNE charge(s).

A.

## Q. ISSUE 13: WHEN SHOULD THE RECURRING AND NON-RECURRING RATES AND CHARGES TAKE EFFECT?

The recurring and non-recurring rates and charges should take effect immediately after the Commission approves and Orders them. At such time ILEC/ALEC Interconnection agreements should be amended to include the Ordered rates and charges.

#### Q. DOES THIS CONCLUDE YOUR TESTIMONY?

23 A. Yes.

MS. KEATING: Next is Supra's Witness Nilson. CHAIRMAN DEASON: Witness Nilson's prefiled testimony without objection shall be inserted into the record. MS. KEATING: And Witness Nilson had one exhibit, DAN-1. CHAIRMAN DEASON: That exhibit shall be identified as Exhibit 49, and without objection shall be admitted. (Exhibit Number 49 marked for identification and entered into the record.) 

1	SUPRA TELECOMMUNICATIONS & INFORMATION SYSTEMS, INC.
2	REBUTTAL TESTIMONY OF DAVID A. NILSON
3	BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4	DOCKET NO. 990649-TP
5	JUNE 9, 2000
6	
7	
8	Q. PLEASE STATE YOUR NAME AND ADDRESS
9	
0	A My name is David A. Nilson. My address is 2620 SW 27th Avenue, Miami, Florida
11	33133.
12	
13	Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPICITY?
14	
15	A. I am the Chief Technology Officer of Supra Telecommunications and Information
16	Systems, Inc. ("Supra").
17	
8	Q. PLEASE DESCRIBE YOUR BACKGROUND AND WORK EXPERIENCE.
19	
20	A. I have been an electrical engineer for the past 26 years, with the last 22 years spen
21	in management level positions in engineering and quality, and regulatory
22	
	departments. In 1976, after spending two years working in the microwave industry
23	producing next generation switching equipment for end customers such as AT&T

long lines and ITT, I was part of a three-man design team that produced the world's first microwave integrated circuit. This job involved extensive work with various government agencies. At that time, our design was considered the "holy grail" of the microwave industry and was placed in production for AT&T within 30 days of its creation. This job also involved communications equipment design work with various government entities covered by United States Departments of Defense I spent several years in quality control management, security restrictions. monitoring and trouble-shooting manufacturing process deviations, and serving as liaison and auditor to our regulatory dealings with the government. I spent 14 years in the aviation industry designing communications systems, both airborne and land-based, for various airlines and airframe manufacturers worldwide. This included custom designed hardware originally designed for the Pan American Airlines call centers, and the HF long range communications system controllers used on Air Force One and Two and other government aircraft. In this job I was also responsible for validation design testing and FAA system conformance testing. Since 1992 I have been performing network and system design consulting for various industry and government agencies, including the Argonne National Laboratories. I am the principal architect of Supra's ATM backbone network and our central office design.

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1	Q.	НА	VE	YOU	EVER	PREVIOUS	LY TES	TIFIED	BEFO	RE T	HIS
2		СОММІ	SSIC	N?							
3											
4	A.	Yes, I tes	stific	d before	this Con	nmission in n	umerous ge	eneric do	ckets and	d in vari	ious
5		disputes	betw	een Sup	ra Teleco	om and BellSe	outh.	٠			
6											
7											
8	Q.	WHAT	IS TI	HE PUR	POSE O	F YOUR TES	TIMONY	?			
9	A.	The purp	pose	of my t	estimony	is to address	the issues	identified	l in this	proceed	ling.
10		I have re	eviev	ved the	testimoni	es of the ILE	Cs regardi	ng issues	5 (which	ch signa	iling
11		network	s and	i call-re	lated data	abases should	rates be se	et); 6 (wl	nen is it	approp	riate
12		to reco	ver	non-reci	urring co	osts through	recurring	rates);	9(b)	(should	the
13		Commis	sion	require	: ILECs	to unbundle	any other	r elemen	ts or co	ombina	tions
14		thereof)	; and	l 13 (wł	nen shoul	ld recurring a	nd non-rec	urring ra	ites take	effect)	and
15		will reb	ut th	e asserts	s made ii	n general by	the ILECs.	I will a	also rebi	ut the d	irect
16		testimor	ıy of	BellSo	uth witne	sses Alphons	o Varner, a	and Sprir	it witnes	ss Jame	s W.
17		Sichter	on is	sues 5, 6	and 9b.						
18											
19											
20	IS	SUE 5:	FO	R WHI	CH SIG	NALING N	ETWORK	S AND	CALL	RELA	TED
21		DATAI	BAS	es sho	ULD RA	ATES BE SE	T.				

1	Q. AS DEFINED BY BELLSOUTH WITNESSES VARNER, ARE THERE ANY
2	OTHER NETWORKS OR DATABASES FOR WHICH RATES SHOULD BE
3	SET?
4	
5	A. Yes. Unbundled Local switching requires that the ALEC who leases a switching
6	port be given all features and functionality of the port. One such feature is the
7	ability of the port to produce stutter dialtone, or activate a light on the telephone
8	set of a subscriber in response to a signal from a voicemail system or provider to
9	let the telephone subscriber know there is a message waiting. Traditionally this
0	task has been done via the System Message Desk Interface (SMDI) and
1	enhancements to it such as Inter Switch Voice Messaging (ISVM) which allows
12	one switch to pass messaging requests across the network to other switches
13	without the use of a dedicated network.1
14	
15	While this is clearly a function of the switch port, and functionality of it comes
16	with the switch port, in Florida there is no unbundled access to this fundamentally
17	important signaling network / switch port functionality. Therefore an ALEC is not
18	in parity with the ILEC for the Local Switching UNE.
19	

<sup>&</sup>lt;sup>1</sup> Lucent Document 235-190-104 5ESS 2000 switch ISDN Feature Descriptions, Section 13.4 Message Service System Features, Issue 3 pages 13-67 through 13-126 – Attached as Exhibit DAN-1.

BellSouth does not provide unbundled access to this signaling network, but in their 1 FFC #1 Access Tariff lists SMDI and something called ISMDI. The description of 2 ISMDI is an SS7 / TCAP based network that through a convoluted conversion of 3 conversion between SMDI, ISDN and SS7 / TCAP messages provides a single 4 connection to a signaling connection that is supposed to be able to activate a 5 6 Message Waiting Indicator (MWI) on a Latawide basis. This is clearly not as cost effective as the ISVM approach. The alternative an ALEC has would be to 7 8 establish an SMDI connection to each and every BellSouth switch in Florida, a 9 total of 206 individual connections at last count. This is not cost effective 10 compared to ISVM and presents a substantial barrier to entry. 11 12 Nowhere is there any mention of direct access to the ISVM signaling, or 13 unbundled access to any signaling required to activate MWI on a leased Local 14 Switching port. These omissions are creating an unusually high barrier to entry for 15 an ALEC like Supra Telecom who is expected by telephone subscribers to provide 16 the same services as the ILEC as seamlessly as the ILEC provides those services. 17 18 As shown in Figure 13-11 (of attachment DAN-1), and 13-13 there is no separate 19 signaling network required to transmit messages switch to switch. It is included in 20 the basic switch port functionality, according to meetings Supra Telecom has held 21 with Bell Labs personnel on this issue. Additionally the Bell Labs Engineers 22 confirmed that this ISVM has been adopted as an industry standard for many years

now. This industry standard is also supported by Nortel and Siemens, so that all 1 switches in the BellSouth's network are compliant. Figure 13-14 along with 2 section 13.4.1.2 shows that the required software is part of the base generic 3 software since, at least the 5E8 generic. Since the current software release from 4 Lucent is 5E14, and since Lucent does not support switches with software loads 5 6 beyond two prior revisions, it is obvious that the required software is already 7 loaded on BellSouth's switches. 8 9 ALEC access to the ISVM signaling "network" should be defined as a 10 fundamental component of Local Switching line and trunk ports and ALEC access 11 to this network required of and provided by all Florida ILECs as it is elsewhere in 12 the country. The various message signaling networks are necessary to an ALEC to 13 compete with the ILEC, and failure to have access to such signaling impairs Supra 14 Telecom's ability to acquire new customers who view such a limitation as the 15 mark of an inferior carrier. 16 17 Q. ARE THERE ANY OTHER ISSUES WITH WITNESS VARNER'S 18 TESTIMONY? 19

A. The Local Number Portability (LNP) Query Service.<sup>2</sup> All of the databases listed 1 are query databases. However the specific identification of this as a Query Service 2 in reference to LNP underscores the fact that there is no unbundled OSS access to 3 the system. There is no way for an ALEC to directly provision LNP translations. 4 they must be performed via LSR instead of the obvious, and speedy solution of 5 providing unbundled access to the LSMS system [the standard provisioning 6 hardware / software system used nationwide for entering LNP translations for 7 8 Nuestar (previously Lockheed Martin)]. 9 10 LIDB, which is used for authorization of third party billed calls, collect, credit card, etc. is the type system that contains ALEC specific data on a given line. 11 12 Unbundled OSS access to this system to deal with the minute to minute needs of an ALEC to render or remove credit authorization to a customer speedily and 13 14 freely and without unnecessary infrastructure overhead. 15 16 Therefore it is essential to provide unbundled OSS access to ALECs in a manner that 17 the LIDB records for a given ALEC customer may be directly modified by the 18 ALEC. 19

<sup>2</sup> BellSouth witness Varner, page 32 line 25.

1	ISSUE 6: UNDER WHAT CIRCUMSTANCES, IF ANY, IS IT
2	APPROPRIATE TO RECOVER NON-RECURRING COST THROUGH
3	RECURRING RATES?
4	
5	Q. IN DEFINING "NON-RECURRING COST", SHOULD SUBCATEGORIES BE
6	RECOGNIZED IN DEALING WITH THE ANSWER TO ISSUE 6.
7	A. Yes. Task related non-recurring costs that repeat, each time an ALEC or ILEC
8	places a service order are a legitimate non-recurring charge. For example, the non-
9	recurring cost to move a cross-connect, or change the carrier code from ILEC to
10	ALEC in the OSS is directly related to the service provisioned.
11	
12	Within that category, non-recurring costs to convert a working circuit to another
13	carrier are different than placing a circuit in operation at a given address. The
14	current structure of just one non-recurring rate per UNE loop is allowing the ILEC
15	undue enrichment for activities that are not performed. For example, the non-
16	recurring cost to combine NID, Subloop distribution and Subloop feeder
17	components together into a full loop to the customer is a cost that is substantially
18	higher than the non-recurring cost to switch an existing, in-service loop from one
19	carrier to another. Yet with the exception of the limited scope of order PSC-98-

l	0810-FOF-TP <sup>3</sup> , most ALECs in Florida are paying charges for placing a loop in
2	service, for the first time, whenever they order a conversion of a working circuit.
3	
4	The non-recurring costs of infrastructure, purchase, and construction is a cost to be
5	shared by the carriers using the facility, over the useful life of the facility. Beyond
6	this point the cost model needs to deal with the facility in a different fashion
7	depending upon whether it remains in service or not.
8	
9	Task related non-recurring costs are specific to a given carriers order for a
10	particular service and should remain non-recurring costs. These non-recurring
11	costs should be specific and the use of Individual Case Basis (ICB) be limited in
12	the extreme, if allowed at all.
13	
14	
15	Q. DOES THE TESTIMONY OF BELLSOUTH WITNESS VARNER AND SPRINT
16	WITNESS SICHTER REPRESENT ALL THE ISSUES?
17	
18	A. No, not at all. Sprint witness Sichter states that "To the extent that high non
19	recurring charges are a significant barrier to competitive entry, it may be
20	appropriate to require at least a portion of those non-recurring charges through

1 recurring rates. This is in recognition of the FCC's continued efforts to ensure that 2 such non-recurring rates could and might be used by an ILEC to prevent a new competitive carrier from competing with the ILEC in a given area or on a specific 3 4 product. Unfortunately his final conclusion on this issue ignores this statement in 5 favor of financial protection for the ILEC. 6 7 BellSouth witness Varner then goes on to make statement that "In a competitive 8 environment, a providers ability to predict how long an ALEC will remain on the 9 providers network is limited "4. Sprint witness Sichter states "... the incumbent 10 LEC is financially exposed if the ALEC discontinues service before the nonrecurring costs are fully recovered."<sup>5</sup> Whether it is the high cost burden of current 11 12 non-recurring charges that causes an ALEC to discontinue leased services, or other 13 reasons, both Sprint and BellSouth indicate that users of facilities will change over 14 the life of the facility. 15 16 In spite of their recognition that there must not be barriers to entry in the 17 competitive market, and that the users of facilities will change over time, both 18 ILEC witnesses go on to ask the commission for financial protection from an 19 ALEC who cancels service early! 20

<sup>&</sup>lt;sup>4</sup> BellSouth witness Varner page 33, line 13.

1	This limited view of reality is trying to deal with non recurring costs related to the
2	first user, rather than the life of the facility. It ignores the fact that over the useful
3	life of the facility, the ILEC itself may well be a user of the facility. It also ignores
4	the fact that due to universal service, a large portion, if not all of the listed UNEs
5	would have to be constructed anyway. Therefore when an ALEC is not leasing a
6	specific UNE, the ILEC may still be generating revenue from it, either by leasing
7	or from Universal Service funds.
8	
9	The non-recurring infrastructure charges should be apportioned between the ILEC
10	and all ALECs based upon who has "ownership" of the facility in a given month
11	These charges should be assessed throughout the amortized life of the equipment
12	Any attempt to charge non-recurring infrastructure costs to the first user of
13	facility at a higher rate than subsequent users of the facility violates creates as
14	unnecessarily high barrier to entry.
15	
16	
17	Q. CAN YOU PROPOSE A TEST TO DETERMINE WHETHER A COST SHOULI
18	BE INCLUDED IN THE RECURRING CHARGE?
19	

<sup>&</sup>lt;sup>5</sup> Sprint witness Sichter page 26, line 3.

A. Well defined, repetitive costs related to service provisiong should remain non-1 recurring costs. However the cost of placing a loop in service should recognized as substantially different from converting an existing, in-service loop from one carrier to another. The non-recurring rates set by this commission should reflect these very different costs. This is true whether the new carrier is provisiong service via UNE combination<sup>6</sup> or directly from their own facilities based equipment.

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This test addresses witness Varner and Sichters concern that an ALEC might cancel service earlier than expected. The ALEC is billed direct costs of provisioning service as a non-recurring rate, and construction costs are assessed to all users over the life of the facility.

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Another test for whether a non recurring cost should be separate from the recurring charge are ICB charges. Typically all ICB costs are actually infrastructure construction - they vary depending on physical circumstances and cannot be modeled specifically. ICB charges should be included in recurring rates where they get picked up by the cost model and apportioned to all users.

<sup>&</sup>lt;sup>6</sup> As provided for by this commission in PSC-98-0810-FOF-TP, conclusion on pages 55-56.

l	ISSUE 9(b): SUBJECT TO THE STANDARDS OF THE FCC's THIRD
2	REPORT AND ORDER, SHOULD THE COMMISSION REQUIRE ILEC'S
3	TO UNBUNDLE ANY ELEMENTS OR COMBINATIONS OF ELEMENTS.
4	IF SO, WHAT ARE THEY AND HOW SHOULD THEY BE PRICED?
5	
6	Q. ARE THERE ANY OTHER ELEMENTS NOT LISTED IN ISSUE 9(A) THAT
7	NEED TO BE UNBUNDLED?
8	
9	A. Yes. One missing element is unbundled DSLAM access. In addition to providing
10	high speed Internet access via ADSL, there are an increasing list of other
11	Telephony related services provided by xDSL circuits, controlled by Central
12	Office located DSLAMS.
13	
14	First of all, in order to serve any customer in the state with xDSL derived services,
15	one MUST have access to a DSLAM in every central office. Second, With the
16	exception of IDSL (an ISDN BRI equivalent) all other DSL flavors must have
17	direct copper connection between the DSLAM and the customer premises.
18	According to reported figures 60% of BellSouth customers are fed with some
19	amount of fibre optic cable between the central office and the customer. To
20	Service these customers an ALEC must now collocate in every Remote Terminal
21	in the state, an outstanding number of collocations for facilities that quite honestly
22	were never designed to have the capacity to support collocation.

1	
2	Yet DSL variants are extremely and increasing used by all telephone companies to
3	deploy voice services. Supra Telecom has numerous T1 circuits running into our
4	corporate headquarters. Not one of those T1's is provisioned over a standard 4
5 ·	wire DS1 circuit. Every one is provisioned over an HDSL (2 wire POTS or DSL
6	loop) or MHDSL( 2x2wire POTS or DSL loops) rather than a conditioned,
7	repeater equipped DS1 loop.
8	
9	The voice over DSL standards have come a long way in the past year, and all over
10	the country, high density voice circuits are increasingly being provisioned over 2
11	wire circuits instead of DS1 circuits due to lack of facilities, speed of provisioning,
12	or for the reduced cost of this approach.
13	
14	Packet switched products such as Frame Relay are also delivered over DSL. All of
15	Supra Telecom's Frame Relay circuits connection us to the various ILEC data
16	centers around the country were provisioned by BellSouth over HDSL circuits. So
17	as the commission addresses the unbundling of packet switching, it must deal with
18	the delivery of said service to the end user. Such local loop delivery is
19	increasingly being provided by the ILECs DSLAMS or equivalent equipment.
20	
21	The ILEC is the one carrier who has deployed DSLAMS ubiquitously throughout

its network in Central Offices AND Remote Terminals. This piece of equipment

1 and its attendant transport, has become an important device in provisioning voice 2 services and as such should be offered in unbundled access. The ILEC must be compelled to provide unbundled access to this switch with pricing based on 3 standards already established by this commission for Unbundled Network 4 Elements. 5 6 7 O. ARE THERE ANY OTHER? 8 9 A. Yes. With the creation of Dark Fibre UNE's the question of Wave Division 10 Multiplexing (WDM) UNEs should be considered. WDM is a technique of using 11 multiple chromatically different lasers to provide 48 (or more) channels of capacity 12 over a circuit that would support one circuit using standard Fibre optic equipment. 13 Not that the practice is any less reliable, but cost studies for dark fibre and lit fibre 14 may have 48 times the revenue bearing capability that has been envisioned in the 15 cost model, and the technological advance that allows this extra capacity should be 16 factored into the cost models. As such it becomes a legitimate consideration as a 17 separate UNE. 18 19 Additionally, loops within the distance limitations of xDSL technology should be 20 set aside as a UNE, even if the loop only has voice-grade capabilities. The reason 21 for establishing such a category would be to comply with the TELRIC model 22 requirements that the best and most efficient technology be used when determining

l	costs. Since it appears that xDSL capable loops will be less expensive than the
2	standard voice grade loop, all loops within the xDSL distance capability (i.e.
3	18,000 feet to some vendors and ILECs such as BellSouth, greater lengths to
4	others) should be install as the less expensive xDSL loop, rather than the more
5	expensive standard voice-grade loop. Pricing of these xDSL length loops, for
6	which only voice-grade quality can be guaranteed, should be the same as the xDSL
7	loops minus any cost of ensuring that the xDSL loop meets the higher standard.
8	
9	
10	ISSUE 13: WHEN SHOULD THE RECURRING AND NON-RECURRING
11	RATES AND CHARGES TAKE EFFECT?
12	
13	Q. WHEN SHOULD THE RECURRING AND NON-RECURRING RATES AND
14	CHARGES TAKE EFFECT?
15	
16	A. Immediately after the Commission has made a final determination of the rates set
17	by this docket.
18	
19	Q. DOES THIS CONCLUDE MY TESTIMONY?
20	
21	A. Yes, this concludes my testimony.

MS. KEATING: Next is Supra's Witness Bentley. CHAIRMAN DEASON: Witness Bentley's prefiled testimony without objection shall be inserted into the record. MS. KEATING: And Witness Bentley did not have any prefiled exhibits. 

1	SUPRA TELECOMMUNICATIONS & INFORMATION SYSTEMS, INC.
2	REBUTTAL TESTIMONY OF CAROL BENTLEY
3	BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4	DOCKET NO. 990649-TP
5	JUNE 9, 2000
6	
7	
8	Q. PLEASE STATE YOUR NAME AND ADDRESS
9	
10	A. My name is Carol Bentley. My address is 2620 SW 27 <sup>th</sup> Avenue, Miami, Florida
11	33133.
12	
13	Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?
14	
15	A. I am the Chief Financial Officer of Supra Telecommunications and Information
16	Systems, Inc. ("Supra").
17	
18	Q. PLEASE DESCRIBE YOUR BACKGROUND AND WORK EXPERIENCE.
19	
20	A. I attended University of Michigan and Eastern Michigan University, graduating
21	with a Bachelors degree with a double major in Mathematics and Finance and a
22	minor in Computer Science. I have also completed substantial coursework

2		telecommunications industry for over twenty years performing various financial,
3		treasury, business management and IT functions. Several of the companies I have
4		worked for include General Datacomm, Inc., Racal Datacom Industries, Inc. and
5		Supra Telecommunications and Information Systems, Inc.
6		
7	Q.	HAVE YOU EVER PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?
8		
9	A.	Not formally, but I have previously provided a presentation in a workshop before
0		this Commission in the current Operational Support Systems (OSS) Docket No.
1		981834-TP.
2		
.3		
4	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
.5		
.6	A.	The purpose of my testimony is to address the issues identified in this proceeding.
.7		I have reviewed the testimonies submitted by the ILECs (i.e. BellSouth, GTE and
8		Sprint) concerning Depreciation, Cost of Capital and Tax Rates. As a preliminary
9		matter, it is my opinion that the ILECs have both the incentive and means of
20		present cost models that inherently inflate and even "double count" actual costs.
21		Because the actual cost information is truly only available to the ILECs, it is
22		difficult for ALECs, particularly small ALECs to realistically challenge the cost

requirements toward a Masters in Business Administration. I have worked in the

1		estimates generated. Therefore the purpose of my testimony is to rebut the
2		testimonies of the ILECs in reference to depreciation, cost of capital and tax rates;
3		and in the process, urge the Commission to stick closely to FCC guidelines on
4		these issues and heavily scrutinize both the assumptions and models presented by
5		the ILECs.
6		
7		
8	Q.	WHAT ISSUES WILL YOU ADDRESS?
9		
10	A.	I will rebut the direct testimony of various BellSouth, Sprint and GTE witnesses
11		on issues 7(b) (depreciation), 7(c) (cost of capital) and 7(d) (tax rates).
12		
13		
14	Q.	WHAT ARE THE APPROPRIATE ASSUMPTIONS AND INPUTS FOR
15		DEPRECIATION IN THE FORWARD-LOOKING RECURRING UNE COST
16		STUDIES?
17		
18	A.	In its First Report and Order (FCC 96-325), the Federal Communications
19		Commission (FCC) established various guidelines for forward-looking TELRIC
20		costs modeling. As result of this Order, various pricing rules were established,
21		which have subsequently been upheld by the United States Supreme Court in
22		January 1999 in the case of AT&T Corp., et al v. Iowa Utilities Board et al. These

pricing rules found in 47 C.F.R. Sections 51.503 - 51.513 provide guidance regarding the assumptions and inputs to forward looking cost models. 47 C.F.R. Section 51.505(b)(1) states that the TELRIC cost model assumes a network design based upon the most efficient technology currently available. 47 C.F.R. Section 51.505(b)(3) states that depreciation rates used in calculating forward-looking economic costs of elements shall be economic depreciation rates. The FCC's First Report and Order states at footnote 1711, that "properly calculated economic depreciation is a periodic reduction in the book value of an asset that makes the book value to its economic or market value." Accordingly, it is clear that the FCC has mandated that depreciation rates not be artificial, but must actually be based upon the true service life of the asset. Any shorter periods of depreciate would yield the ILECs an unwarranted profit on this cost element. If an ILEC continues to use a piece of equipment after its depreciated life span, then ALECs will continue paying for the cost of an unbundled network element which no longer costs the ILEC anything. Thus this Commission must reject any assumptions presented by ILECs that yield depreciation lives which are shorter than actual equipment service lives.

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I note that the ILECs, and in particular GTE, argue in favor of utilizing nonstandard accounting methods and the calculation of depreciation using economic asset lives that are less than the true equipment service life. This Commission should not accept any none standard accounting arguments, but rather should rely

solely upon standard accounting practices as embodied by the Generally Accepted 1 Accounting Principals (GAAP). 2 3 With respect to the calculation of depreciation, GTE argues that its depreciation 4 should be calculated at something less than the true useful life of the relevant asset. 5 GTE's rational for this argument is that competition will result in a percentage of 6 its assets being underutilized or not used at all by the time the useful life expires. 7 GTE argues that as competition increases, facilities built by competitor s will leave many GTE assets unutilized. However, this assumption is flawed because in 10 reality competition has caused an explosion in new telephone numbers rather than merely a shift in numbers from ILECs to ALECs (a fact made obvious by the 11 12 shortage in telephone numbers and the constant creation of new area codes). 13 Moreover, when talking about competition in the UNE environment, although a 14 customer may switch to an ALEC, the network elements used by the ALEC will more likely than not still be owned by the ILEC. Thus if an ALEC takes away a 15 16 GTE customer, but provisions that service using UNE combinations, the customer 17 may belong to the ALEC, but the UNE elements and assets used to provision that 18 service are still owned by GTE. Thus it makes no sense to assume that customers 19 lost through competition will result in unused equipment. 20 21 GTE's depreciation argument also is flawed because it seeks to reward GTE for 22 being inefficient. The TELRIC model is a forward-looking cost model, thus any future expenses incurred in providing UNEs will be incurred for the acquisition of new equipment that will be purchased based upon an ILEC's forecast of future needs and future demands. Therefore, an ILEC such as GTE will not incur additional equipment expense if it properly plans for future demand. ALECs should not have to pay for an ILEC's inefficient forecast of future demand.

The ILECs also argue that in the past, the FCC set artificially long depreciation lives so that the cost of equipment would be expensed out over a longer period of time; thereby allowing for lower long distance rates. However, the ILECs do not argue that the actual life of equipment in the past was ever less than the FCC standard. Nor do the ILECs seriously argue that equipment life will likely be any shorter in the future. Indeed, the technology is moving towards telecommunications equipment utilizing computer-based hardware that uses software to provision features. Therefore upgrades are simply software changes rather than equipment changes. Accordingly, it is doubtful that any ILEC assets deployed in the future will have any material change in their useful life as compared to assets already deployed.

BellSouth also argues that their networks in the process of being converted from copper to fiber plant and from analog to digital networks and thus the future will bring large deployments of assets and retirement of equipment. However, BellSouth does not argue that such conversions will take place before the prior

FCC determined useful asset lives. Rather BellSouth concedes that such conversions will take place only after the assets employing older technologies have been fully depreciated. Thus BellSouth implicitly concedes that any alleged competitive pressures in the market will not force them to retire equipment before such assets are fully depreciated beyond their economic useful life. Notwithstanding the above, any attempt to recover from ALECs the depreciation of current assets that have not yet reach their useful life, simply to justify deployment of new equipment, will be an improper attempt to recover past embedded costs. Under the FCC's pricing rules, ALECs have no obligation to pay the cost of an ILECs prior inefficiencies cause by monopolistic deployment mentalities.

In its First Report and Order, the FCC stated in paragraph 702 that the federal depreciation rates were a reasonable starting point and ILECs had the burden of demonstrating with specificity that the business risks they face in providing unbundled network elements and interconnection services, justify a different depreciation rate. In my opinion, the ILECs have not credibly met this burden. Therefore, the only assumptions and inputs which this Commission should consider regarding depreciation are the actual useful life of the asset based upon FCC standards and the ILECs' historical data regarding the prior actual service life of the same, similar or functionally equivalent assets. Any other assumptions would simply give the ILECs an improper and unjustified windfall that would

1	allow ILECs to continue charging ALECs for the cost of equipment that although
2	may still be in service, has been fully depreciated by the ILEC.
3	
4	
5	Q. WHAT ARE THE APPROPRIATE ASSUMPTIONS AND INPUTS FOR COST
6	OF CAPITAL IN THE FORWARD-LOOKING RECURRING UNE COST
7	STUDIES?
8	
9	A. In its First Report and Order (FCC 96-325), the FCC stated in pargraphs 699 and
10	700, that under the TELRIC model, no additional profit above a reasonable profit
11	found in the cost of capital is statutorily authorized. The FCC stated that the
12	forward-looking cost of capital should be equal to a normal profit given the risk
13	factors involved. The FCC also stated in paragraph 702 as follows:
14	"[W]e conclude that the currently authorized rate of return at
15	the federal or state level is a reasonable starting point for
16	TELRIC calculations, and incumbent LECs bear the burden of
17	demonstrating with specificity that the business risks that they
18	face in providing unbundled network elements and
19	interconnection services would justify a different risk-adjusted
20	cost of capital."
21	In that same paragraph, the FCC noted that given the then current (1996) state of
22	the economy, the federally authorized 11.25 percent rate of return was arguably
23	too high given the marketplace cost of debt and equity. The economy has not
24	changed much since 1996 as the United States continues through the strong growth

periods experienced in throughout much of the 1990s. Interest rates are currently low and investment opportunities yielding high rates of return are difficult to find. The ILECs are still monopoly utility providers in the eyes of investors and thus the capital markets still view investments into these companies as being essentially risk-free. Based upon the above, Supra Telecom believes that shareholder investments into ILECs should not be allowed more than an eight to ten percent (8%-10%) rate of return. Even these rates of return, based upon the current economy, are attractive given the low risk involved.

GTE's very creative arguments that cost of capital should be calculated using the same cost of capital available to ALECs is ludicrous. The high cost of capital to new entrants into any industry is one of the biggest barriers to entry. The intent of the Telecommunications Act of 1996 was to level the playing field and in some regard, tip the scales in favor of new entrants in an effort to encourage competition by new entrants. GTE's arguments fly in the face of this intent. Contrary to the assertions made by GTE, the risks faced by small ALECs are enormously greater than those faced by the ILECs. Accordingly, it is ludicrous to allow GTE (or any other ILEC) returns on investment greater than ten percent (10%). The ILECs are still substantial monopolies who will surely always own the majority of the physical local exchange plant. This reality will not change anytime in the foreseeable future regardless of how many ALECs enter the market. Therefore,

1 for all practical purposes, it will be many years before investors view ILECs as 2 being anything but utility monopolies. 3 4 As for cost of debt, Supra Telecom agrees that the true cost of capital should be a 5 weighed average of the cost of equity together with the cost of debt. The cost of 6 debt should be based upon actual cost of debt to the particular ILEC, while the cost of capital should be set at no greater than ten percent (10%). The weighed average 7 8 should then be used to calculate the actual forward-looking cost of capital under 9 the TELRIC model. 10 11 O. WHAT ARE THE APPROPRIATE ASSUMPTIONS AND INPUTS FOR TAX 12 13 RATES IN THE FORWARD-LOOKING RECURRING UNE COST STUDIES? 14 15 A. None. There are currently two general types of taxes; (a) taxes on revenues or 16 gross receipts; and (b) taxes on income. Considerations for income taxes have 17 already been factored into the cost of capital. With respect to taxes on revenues or 18 gross receipts, these taxes (such as the federal excise tax and local and state sales 19 taxes) are charged to the ultimate provider of telecommunications service. In the 20 UNE environment, the pieces of the network are in essence being leased to the 21 ALEC and thus the ILEC is not longer the service provider. Thus the ILEC will 22 generally incur no tax liability in the UNE environment; rather the ALEC will

incur this liability. Where there is no tax liability to the ILEC, there should be no inputs into the TELRIC model. In this instance, none of the ILECs have made a credible showing that they will incur any tax liability (other than on net income) in the UNE environment. Therefore, no consideration for taxes should be given to the TELRIC cost model in determining the cost of unbundled network elements or interconnection services. Q. DOES THIS CONCLUDE YOUR TESTIMONY? A. Yes.

MS. KEATING: Next is Z-Tel's Witness Ford. CHAIRMAN DEASON: Witness Ford's prefiled testimony without objection shall be inserted into the record. MS. KEATING: And Witness Ford did not have any prefiled exhibits. 

1	I.	INTRODUCTION	

2	Q.	Please state your name and business address.
3	A.	My name is George S. Ford. I am the Chief Economist of Z-Tel
4		Communications, Inc. My business address is 601 South Harbour Island
5		Boulevard, Suite 220, Tampa, Florida 33602.
6	Q.	Briefly describe you education educational background and related
7		professional experience.
8	A.	I received a Ph.D. in Economics from Auburn University in 1994. My
9		graduate work focused on the economics of industrial organization and regulation
10		with course work emphasizing applied price theory and statistics. My
11		professional background covers work experiences in private industry and the
12		Federal Communications Commission ("FCC").
13		Prior to joining Z-Tel, I worked at MCI Worldcom, where I served as a
14		Senior Economist in the Law and Public Policy group. MCI Worldcom's Law
15		and Public Policy group is responsible for developing MCI Worldcom's public
16		policy positions for both federal and state regulatory proceedings. The economic
17		staff in this group also assists MCI Worldcom's business units in assessing the
18		financial impact of various regulatory reforms and evaluating business decisions
19		and prospects. While at MCI Worldcom, I filed declarations and economic
20		studies on a variety of topics with both federal and state regulatory agencies.
21		Prior to MCI Worldcom, I served as an Economist at the FCC in the
22		Competition Division of the Office of the General Counsel. The Competition

Division of the FCC was tasked with ensuring that FCC policies were consistent

with the goals of promoting competition across the communications industries. In this role, I advised the FCC's various bureaus on a wide range of issues and participated directly and indirectly in competition-relevant proceedings across the entire scope of the FCC's jurisdiction, including domestic and international telecommunications, multi-channel video, broadcasting, computer interference standards, and the implementation of the 1996 Telecommunications Act.

In addition to my professional experience described above, I am an Affiliated Scholar with the Auburn Policy Research Center at Auburn University. Through this professional relationship, I have maintained an active research agenda on communications issues and have published research papers in numerous academic journals, including the *Journal of Law and Economics*, the *Journal of Regulatory Economics*, Applied Economics, and the Review of Industrial Organization, among others. I regularly speak at conferences, both at home and abroad, on the economics of telecommunications markets and regulation.

## Please describe Z-Tel's service offerings.

Q.

Α.

Z-Tel is a Tampa-based, integrated service provider that presently provides competitive local, long distance, and enhanced services to residential consumers in Massachusetts, New York, Pennsylvania, and Texas. Z-Tel plans to expand operations to other states, including Florida, as the unbundled network element platform ("UNE-P") becomes available at TELRIC rates. Z-Tel's service is not just a simple bundle of traditional telecommunications services. Z-Tel provides unique services that combine local and long distance

telecommunications services with web-based software that enables each Z-Tel subscriber to organize his or her communications, including email, voicemail, fax, and even Personal Digital Assistants ("PDA"), by accessing a personalized web page via the Internet. In addition, the personal Z-Line number can be programmed to follow the customer anywhere via a "Find Me" feature. Other service features include low long distance rates from home or on-the-road and message notification by phone, email, or pager. Customers can also initiate telephone calls (including conference calls in the near future) over the traditional phone network, using speed-dial numbers from their address book on their personalized web page.

# What interest does Z-Tel have in this proceeding?

Z-Tel's services bundle many different communications services — voicemail, email, fax, Internet, PDAs, and local and long distance telecommunications — into an easy-to-use communications control center. To provide the local exchange portion of its service offering, Z-Tel depends on UNEs purchased from incumbent local exchange carriers. Therefore, the UNE rates set by this Commission will directly affect Z-Tel's ability to provide service to residential consumers in Florida.

#### What is the purpose of your testimony?

I present testimony regarding Issue 5, which addresses signaling networks and call-related databases, as identified by the Commission in Order No. PSC-00-0540-PCO-TP.

Q.

A.

Q.

1 2 3 4 5	II. Q.	THE COMMISSION SHOULD SET PERMANENT RATES FOR ALL SIGNALING AND CALL-RELATED DATABASE ITEMS, INCLUDING ADVANCED INTELLIGENT NETWORK ITEMS  What is Z-Tel's concern as it relates to signaling networks and call-
6	¥.	related databases?
7		
	A.	Z-Tel asserts that prices and conditions associated with accessing
8		signaling networks and call-related databases utilized in the provision of
9		Advanced Intelligent Network ("AIN") services should be developed in
10		conjunction with Docket No. 990649. Specifically, the Commission in this
11		Docket should establish permanent rates associated with SS7 queries and
12		responses, AIN service management system ("SMS") access, and AIN Toolkit
13		services (including required access to central office switch triggers).
14	Q.	How have end-user telecommunications services typically been
15		provided?
16	A.	Historically, all end-user feature functionality has been performed either
17		by customer premise equipment ("CPE") supplied by the customer or by software
18		stored in the local central office switch providing service to that end user. When a
19		carrier wanted to offer new services, they were required to go to equipment and
20		switch vendors and ask that new functionality be developed to meet their
21		specifications. This was a very time consuming and expensive process and
22		allowed for little or no customization to meet individual customer needs.
23	Q.	How are end-user services provided using AIN?
24	A.	In AIN architectures, the feature functionality software is split between the
25		central office switch and adjunct call-related processors. The switch can stop or

suspend call processing at predetermined points using a central office switch "trigger" and query a central processor (or database), know as a Service Control Point or "SCP," for instructions on how to route, monitor, or terminate a call. AIN presently is being utilized for numerous applications, such as local number portability, single number service (i.e., 500 number service), and voice recognition dialing. AIN applications are developed and tested in an off-line computer known as a Service Creation Environment, or "SCE." Once an AIN application is successfully tested, the application is uploaded into an SMS, and the SS7 network is then utilized to pass call processing information back and forth between the end user's local switch and the SCPs. Q. Why is access to the AIN important to Z-Tel? A. The AIN is a mechanism by which carriers can utilize existing switches to

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Q.

The AIN is a mechanism by which carriers can utilize existing switches to provide enhanced feature functionality to end users. It will allow Z-Tel to provide innovative new services to end-users through the existing telecommunications infrastructure. Allowing competitors to access AIN components and call-related databases promotes innovation and enables competitors to utilize all of the features and functions of the central office switch in conjunction with call-related databases, as required by the Telecommunications Act of 1996. Thus, final, cost-based pricing for AIN elements is critical to ensuring that Z-Tel and others can access these critical pieces of the incumbent's network.

Why is access to the AIN important to end users?

22		BellSouth for the limited AIN interconnection it proposes?
21	Q.	Can you comment on the appropriateness of rates suggested by
20		access is not included in its proposed rates.
19		testimony filed in this case did not shed any light as to why pricing for such
18		Tel provided call-related databases or "SCPs." Z-Tel's review of BellSouth's
17		does not propose rates in conjunction with interfacing BellSouth switches with Z-
16		BellSouth SCP components to develop adjunct services. However, BellSouth
15		AIN Toolkit service. These rate elements would support Z-Tel's utilization of
14		access to their AIN SMS. They have also proposed rates in association with their
13	A.	Yes, on a limited basis. BellSouth has proposed rates in association with
12		related databases?
11	Q.	Has BellSouth proposed rates in association with access to AIN call-
10		quarter of this year.
9		expects that the service will be deployed in the Bell Atlantic region in the third
8		a laboratory environment and is currently undergoing testing. Z-Tel currently
7		application using Bell Atlantic's AIN offering. The service has been deployed in
6	A.	On a test basis, yes. Z-Tel is currently developing an AIN service
5		incumbent local exchange carrier?
4	Q.	Is Z-Tel accessing AIN call-related databases offered by any
3		supported by adjunct call-related databases/processors.
2		limitations on the ability of competitors to develop new service applications
1	A.	Without access to AIN components, end-users will suffer due to arbitrary

1	A.	It is my understanding that the issue of the appropriateness of rates
2		suggested by BellSouth should be deferred to the second phase of this proceeding.
3		Therefore, I reserve the right to provide such comment at that time.
4	Q.	Can you comment on the structure of the rates suggested by BellSouth
5		for the limited AIN interconnection it proposes?
6	A.	Again, specific questions regarding rates and rate structure are better left
7		to the second phase of this proceeding. However, I can state that Z-Tel is
8		concerned that one group of rate elements proposed by BellSouth does not reflect
9		call-related database expenses and may actually result in double recovery of
10		certain switching costs. Z-Tel's position is that BellSouth is fully recovery its
11		AIN switch trigger costs through its unbundled local switching rate.
12		To the extent that BellSouth's proposed rate for the unbundled local
13		switching element fully recover the entire cost of local switching, any attempt to
14		recover AIN trigger costs through additional rate elements, such as BellSouth's
15		"Trigger Access Charge," would clearly be unsupportable. Also, to date,
16		BellSouth has not presented any convincing evidence as to why provisioning AIN
17		switch triggers should generate any additional costs if they are deployed in
18		association with the initiation of service for a particular end-user.
19	Q.	Does this conclude your testimony?
20	A.	Yes.

MS. KEATING: Next is Witness Murray, who was sponsored by the Data ALECS. CHAIRMAN DEASON: Witness Murray's prefiled testimony without objection shall be inserted into the record. MS. KEATING: Witness Murray has one prefiled exhibit, TLM-1. CHAIRMAN DEASON: That exhibit shall be identified as Exhibit 50, and without objection shall be admitted. (Exhibit Number 50 marked for identification and entered into the record.) 

#### I. INTRODUCTION AND SUMMARY

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1

3 Q. Please state your name, title and business address.

- 4 A. My name is Terry L. Murray. I am President of the consulting firm Murray &
- 5 Cratty, LLC. My business address is 227 Palm Drive, Piedmont, California
- 6 94610.

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23

24

- 8 Q. Please describe your qualifications and experience as they pertain to this
- 9 proceeding.
- I am an economist specializing in analysis of regulated industries. I received 10 A.
- 11 an M.A. and M.Phil. in Economics from Yale University and an A.B. in
- Economics from Oberlin College. At Yale, I was admitted to doctoral 12
- candidacy and completed all requirements for the Ph.D. except the dissertation. 13
- My fields of concentration at Yale were industrial organization (including an 14
- 15 emphasis on regulatory and anti-trust economics) and energy and
- 16 environmental economics.

My professional background includes employment and consulting 17 experiences in the fields of telecommunications, energy, and insurance 18 19 regulation. As a consultant, I have testified or served as an expert on telecommunications issues in proceedings before state regulatory commissions 20 in California, Connecticut, Delaware, the District of Columbia, Hawaii, 21 Illinois, Kansas, Maryland, Massachusetts, Michigan, Nevada, New Jersey,

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New York, North Carolina, Pennsylvania, South Carolina, Texas, Virginia,

Washington, and Wisconsin, and before the Federal Communications

1		Commission ("FCC"). I have extensive experience reviewing the cost studies
2		that incumbent local exchange carriers ("ILECs") have presented to state
3		regulatory commissions in support of their proposed prices for unbundled
4		network elements and collocation.
5		Before I became a consultant in 1990, I was employed for
6		approximately six years in a variety of positions (including Director of the
7		Division of Ratepayer Advocates) at the California Public Utilities
8		Commission and had significant responsibility for telecommunications matters.
9		I have also taught economics and regulatory policy at both the undergraduate
10		and graduate levels.
11		
12	Q.	Have you included a copy of your curriculum vita with this testimony?
13	A.	Yes. My curriculum vita, included as Exhibit (TLM-1) to this
14		testimony, provides more detail concerning my qualifications and experience.
15		
16	Q.	What is the purpose of your testimony?
17	A.	BlueStar Networks, Inc. ("BlueStar"), DIECA Communications, Inc. d/b/a
18		Covad Communications Company ("Covad") and Rhythms Links Inc.
19		("Rhythms") have asked me to address Issues 6 and 9b with respect to all three
20		incumbents, BellSouth Telecommunications, Inc. ("BST"), GTE Florida
21		Incorporated ("GTE") and Sprint - Florida, Incorporated ("Sprint") in this
22		proceeding.
23		

1	Ų.	riease summarize the conclusions in your testimony.
2	A.	In my testimony, I explain the basis for the following conclusions concerning
3		Issue 6:
4		Nonrecurring charges inherently create barriers to entry because they are
5		sunk costs. The higher the nonrecurring charge, the greater the barrier to
6		entry.
7		• The nonrecurring charges that the Florida incumbents have proposed in this
8		proceeding are, in many cases, so high as to pose a significant threat to
9		competitive entry.
10		• The Commission can mitigate, although not eliminate, this barrier to entry
11		by recovering some or all of the identified nonrecurring costs through
12		recurring charges.
13		I also address the following conclusion concerning Issue 9(b):
14		• The Commission should not address BST's proposed costs and rates for
15		line-sharing splitters in this proceeding because doing so would be contrary
16		to the all-party stipulation that the Commission approved on December 17,
17		1999.
18		
19	II.	ISSUE 6: UNDER WHAT CIRCUMSTANCES, IF ANY, IS IT
20		APPROPRIATE TO RECOVER NONRECURRING COSTS
21		THROUGH RECURRING RATES?
22		
23	Q.	What is the economic significance of nonrecurring charges?

Nonrecurring charges are important because they are, in effect, entrance fees.
The higher the nonrecurring charge, the more difficult it will be for new
entrants to offer competitive local exchange services using the incumbent's
unbundled network elements (or bundled wholesale services). Typically, the
new entrant must pay nonrecurring charges to the incumbent before it can
obtain the unbundled network elements it needs to offer service to an end user
This procedure increases the capital that a new entrant must invest up-front
before it receives even a penny of revenue from its retail customer and
therefore makes entry more difficult. Again, the higher the nonrecurring
charge, the greater the up-front capital that a new entrant must invest and thus
the more difficult entry becomes.
It is possible to mitigate the effect of these up-front capital costs on
entry, and indeed, as I will discuss below, the FCC has required GTE's merger

It is possible to mitigate the effect of these up-front capital costs on entry, and indeed, as I will discuss below, the FCC has required GTE's merger partner Bell Atlantic to implement an Optional Payment Plan for nonrecurring charges that attempts to address this issue. It is not possible, however, to change the essential reality that a nonrecurring charge is a sunk cost and thus creates a barrier to entry.

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### Q. What is a sunk cost?

A sunk cost is a cost that, once incurred, a firm cannot recover if it ceases business. In essence, sunk costs are costs incurred for which the firm does not acquire some tangible asset that can be resold. The reason sunk costs create a

barrier to entry is that they impose greater risks for a new entrant that the cost will not be recovered from sales in the market than do other costs.

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## Q. Why do nonrecurring charges create a barrier to entry?

Unlike recurring charges for unbundled network elements or recurring costs for a new entrant's own facilities, nonrecurring charges are a sunk cost. A new entrant cannot obtain a refund or repayment for any or all of the nonrecurring charges it pays the incumbent, even if the new entrant loses the retail customer on whose behalf it incurred the nonrecurring charges or goes out of business entirely. In contrast, if a new entrant loses a retail customer that it had been serving using an unbundled loop, or exits the local exchange business entirely, the new entrant is no longer obligated to pay monthly recurring charges for the loop it no longer needs. Similarly, if the new entrant loses a retail customer that it had been serving using its own switch, it can use the freed-up switching capacity to serve a different retail customer or lease that capacity to another carrier. If the new entrant leaves the local exchange business entirely, it can sell its switch to another local exchange provider. As these examples illustrate, nonrecurring charges for unbundled network elements create a greater risk of non-recovery of a new entrant's costs than do either recurring charges for unbundled network elements or recurring costs for a new entrant's own facilities.

The only way that a new entrant can be sure of recovering the full cost of the nonrecurring charges it incurs on behalf of a retail customer is to impose

an up-front nonrecurring charge on the retail customer that equals or exceeds the nonrecurring charge the new entrant had to pay the incumbent to order the unbundled network element or elements needed to serve that customer. This is easier said than done. There are no nonrecurring costs or nonrecurring charges when an existing customer of an incumbent local exchange carrier chooses to stay with that incumbent. For new entrants to persuade consumers to switch local exchange carriers, they may have to forego or minimize up-front charges. similar to the process that has occurred in the interLATA markets with the Primary Interexchange Carrier ("PIC") change charges. New entrants will have to try to recover any nonrecurring charges they must pay at least in part in the rates they receive on a recurring basis from their customers. The higher the nonrecurring charges, the less likely that a new entrant can recover those costs through a markup on recurring rates over the average "life" of a customer, particularly given the frequency of customer churn that one might reasonably expect in a newly competitive market. This simply adds to the barrier to entry that nonrecurring charges create. How do nonrecurring charges associated with a customer's change of service provider affect the relative competitive positions of incumbents

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Q. and new entrants?

Because incumbent local exchange carriers start the competitive era with virtually a 100% market share for local service, the difference in the effect of nonrecurring charges on the competitive positions of incumbents and new

entrants is enormous. At least initially, almost all nonrecurring charges associated with customers' switching service providers will fall on new entrants. Thus, all of the increased risk associated with the sunk costs that nonrecurring charges represent falls on new entrants. All other things being equal, the risk associated with nonrecurring charges will increase the expected return that investors will demand to provide capital to new entrants. The higher the nonrecurring charges, the greater the risk and the greater the increased cost of capital to new entrants.

This difference in capital costs makes competitive entry very difficult. Even if a new entrant is equally as efficient as the incumbent in every other respect, a higher cost of capital means that the minimum price that a new entrant must charge retail customers to recover all of its costs will exceed the minimum fully compensatory price that the incumbent can charge. Because new entrants generally must offer *lower* prices than the incumbent to win customers, it is clear that nonrecurring charges create a difficult bind for new entrants.

A.

Q. Do the nonrecurring charges proposed in this proceeding create the risk of imposing a significant barrier to entry in Florida?

Yes. Several of the nonrecurring charges that the incumbents have proposed in this proceeding are sufficiently high that they would, if adopted, create a significant barrier to entry in Florida. This problem is especially acute with respect to the nonrecurring charges for the unbundled network elements that

competitors such as BlueStar, Covad and Rhythms must obtain to offer advanced services based on Digital Subscriber Line ("DSL") technology to Florida consumers.

For example, the loop "conditioning" charges that BST and GTE have proposed present a high barrier to entry in themselves. In GTE's case, the company's proposed nonrecurring "conditioning" charges are so extreme that they are actually higher then the entire cost to build a new unbundled loop in GTE's TELRIC analysis. In fact, GTE proposes a nonrecurring charge of \$1,448.22 for removing load coils from a loop, one and a half times GTE's own estimate of the entire loop investment, \$960.20 (i.e., its total reported cost to build an entirely new loop from scratch, which may itself be inflated). GTE proposes a nonrecurring charge of \$911.76 for removing a single occurrence of bridged tap. And, if a competitor is unlucky enough to order a loop containing both load coils and bridged tap, GTE proposes that competitors pay from \$1,709.68 (removal of load coils and one bridged tap) to \$2,072.18 (removal or load coils and multiple bridged tap). Such extreme nonrecurring charges create a substantial barrier to entry.

Although they are not as astronomical as GTE's, BST's proposed "conditioning" charges are also sufficiently high to constitute substantial entry barriers. For example, BST has proposed a charge of \$772.31 for removing the first load coil from a loop of greater than 18,000 feet. For comparison, BST has calculated the average investment required for an entire 2-wire basic loop as \$835.14. (Although BST's proposed rates for "conditioning" loops up

to 18,000 feet in length are lower, it appears that BST is proposing to apply nonrecurring "conditioning" charges to every xDSL-capable loop, including those that do not require "conditioning.")

Even some of the basic ordering and provisioning charges that the incumbents have proposed for DSL-capable loops — charges that would apply to each and every loop that competitors order — are high enough to pose an entry barrier. For example, BST's proposed nonrecurring charges for provisioning an xDSL loop range from \$347.77 for a long copper loop to \$475.16 for an HDSL loop (\$155.44 of which is the disconnect charge). In all cases except the long copper loop, BST would add a \$120.98 "conditioning" charge that it seeks to impose on all xDSL-capable loops under 18,000 feet.

GTE has not been entirely clear regarding which nonrecurring charges would apply for xDSL-capable loops. However, if GTE intends that xDSL-capable loops fall into its "Advanced - Basic" category, as its nonrecurring cost study documentation seems to indicate, then a (semi-mechanized) ordering charge of \$25.03 and a provisioning charge of \$573.73 would apply.

The cumulative effect of the various nonrecurring charges that the incumbents have proposed is onerous indeed. For example, the nonrecurring charges BST proposes for an ADSL compatible loop, which include an electronic service order element in addition to those listed above, sum to \$581.88. (This total does not include any charges for manual service order processing, order coordination, manual loop qualification, or specific loop "conditioning," each of which would add to the total.) The nonrecurring

charge for an xDSL-capable loop longer than 18,000 feet (UCL-long) that requires removal of load coils would total \$1,123.28, substantially more than the entire investment for an average loop.

GTE's proposed ordering and provisioning charges for an xDSL-capable loop, which I discussed above, sum to \$598.76. (Once again, this total does not include any charges for manual service order processing or loop "conditioning.") For those loops requiring removal of load coils, nonrecurring charges would total \$2,046.98.

The following table shows how some of the nonrecurring charges that BST and GTE propose for installing an xDSL loop compare to BST's and GTE's own calculations of the entire forward-looking investment required to provision an average loop.

Table 1 - Incumbent Proposed Nonrecurring Charges for xDSL

Loops Compared to the Incumbent's Reported Investment for the

Average Complete Unbundled Loop.

Nonrecurring

Average

18	Charge	Investment
19	BellSouth	
20	Total Reported Investment Per Average Loop:	\$ 835.14
21	Long Loop Ordering and Provisioning (min) \$ 350.9	7 42%
22	Long Loop Load Coil Removal \$ 772.3	1 92%
23	Long Loop with Load Coil Removal \$1,123.2	8 135%

### **GTE**

3	Total Reported Investment Per Average L	oop:	\$ 960.20
4	xDSL Ordering and Provisioning (min)	\$ 598.76	62%
5	Load Coil Removal	\$1,448.22	151%
6	xDSL Loop with Load Coil Removal	\$2,046.98	213%

This table shows that the extreme nonrecurring charges that the incumbents are proposing simply to make an existing loop available to DSL competitors are nearly equal to, and sometimes more than, the total investment the incumbents have claimed, in this same proceeding, is sufficient to build an entirely new loop. For example, BST proposes to charge competitors for an existing ADSL loop 42% of the cost to build one from scratch, including all of the investment and placement costs for the loop and supporting structure. At the nonrecurring charges that BST is proposing, if a competitor bought three existing ADSL loops, BST could have built from scratch more than one entirely new loop. If BST also must remove load coils from the existing ADSL loop, BST would charge 135% of the cost of an all-new loop—in other words, the competitor would be better off paying BST to build a new loop from scratch, without any load coils.

The FCC has required that incumbents provide unbundled loops under the "necessary and impair" standard of the Telecommunications Act of 1996. In essence, the FCC has found that it is financially unfeasible for competitors to incur the substantial investments needed to replicate the loop plant that the incumbents have built up over the decades during which they enjoyed a legally protected monopoly (and typically a guaranteed return). Forcing a new entrant to pay as much (or nearly as much) to gain access to an existing loop as it would cost to build a new loop represents as severe a financial barrier to entry as if the unbundled loop were simply unavailable. The incumbents' proposed nonrecurring charges for xDSL-capable loops, therefore, do not comport with the spirit of the unbundling requirement.

Although Sprint's proposed nonrecurring charges are generally more reasonable than those of BST and GTE, the cumulative impact of the charges, including those for loop "qualification" and "conditioning," could also create a barrier to entry.

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Q. What consequences would result if the Commission were to approve a significant portion of the full nonrecurring charges proposed by the Florida incumbents?

If the incumbents are permitted to erect nonrecurring charges as a substantial barrier to entry, Florida consumers will be the ultimate losers. Fewer firms will be able to enter the local exchange market, if any enter at all. Those that do enter will have to charge higher prices than they might otherwise have been able to charge. All of this limits or prevents consumers from getting the benefits that were supposed to come from opening up local exchange markets to competition using unbundled network elements and total service resale.

economic costs.

2	Q.	How can the Commission mitigate the effect of these nonrecurring charges
3		on entry?
4	A.	To create the conditions under which local competition can flourish,
5		nonrecurring charges must not exceed the level necessary to compensate the
6		incumbent for the nonrecurring costs that the new entrant truly causes the
7		incumbent to bear. Thus, the first and most important step is for the
8		Commission to undertake a rigorous review of the proposed nonrecurring
9		charges and to eliminate costs that are not truly efficient, forward-looking

Incumbents have every incentive to make nonrecurring charges an even larger barrier to entry than they would otherwise be by exaggerating the level of nonrecurring cost associated with the preordering, ordering, and provisioning of unbundled network elements and bundled wholesale services. When the Commission reviews the evidence that parties present concerning the errors in the nonrecurring cost studies that the incumbents have filed in this proceeding, it will become clear that the Florida incumbents have acted on this incentive.

My initial review of all three incumbents' nonrecurring charges submitted in this docket reveals that this Commission should significantly reduce those charges in compliance with the TELRIC pricing methodology. (For example, after a similar review, the Public Utility Commission of Texas ordered a nonrecurring interim rate for an xDSL loop of \$15.03, a price that is

1		dramatically lower than the nonrecurring charges that the Florida incumbents
2		have proposed. See Petition of Rhythms Links Inc. and Covad
3		Communications for Arbitration to Establish an Interconnection Agreement
4		with Southwestern Bell Telephone Company, Dockets No. 20226 et al.,
5		Arbitration Award at 11 (Nov. 30, 1999) affirmed by Order Approving
6		Interconnection Agreements (Feb. 07, 2000).)
7		Nonetheless, if this Commission adopts total, cumulative nonrecurring
8		charges that create a barrier to competitive entry in Florida, the Commission
9		should consider converting some or all of the remaining nonrecurring charges
10		to recurring charges. Section 51.507(e) of the FCC's pricing rules for
11		unbundled network elements explicitly permits such a step: "[s]tate
12		commissions may, where reasonable, require incumbent LECs to recover
13		nonrecurring costs through recurring charges over a reasonable period of
14		time."
15		
16	Q.	Is there any precedent for recovering nonrecurring costs through
17		recurring charges as a means of reducing barriers to entry?
18	A.	Yes. As a condition of its approval of Bell Atlantic's merger with NYNEX,
19		the FCC required Bell Atlantic to implement an Optional Payment Plan for
20		nonrecurring charges. The explicit purpose of this requirement was to reduce
21		entry barriers. See Memorandum Opinion and Order, In the Application of
22		NYNEX Corp. Transferor, and Bell Atlantic Corp. Transferee for Consent to

l	Transfer Control of NYNEX Corp. and Its Subsidiaries, File No. NSD-L-96-10
2	(rel. Aug. 14, 1997) ("Merger Order"), ¶ 197.

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Q. Do such mitigation measures eliminate the barrier to entry associated with nonrecurring charges?

No. Even mitigation measures such as the Optional Payment Plan that the FCC required Bell Atlantic to file as part of its merger conditions cannot undo the barrier to entry that nonrecurring charges inherently create. The Optional Payment Plan allows new entrants in essence to finance the nonrecurring charges over an extended period and, therefore, can ease the initial cash flow burden of nonrecurring charges. The Optional Payment Plan does not, however, convert the nonrecurring charges from sunk costs to variable costs because the obligation to pay the entire nonrecurring charges — including carrying charges — persists even if the new entrant loses the retail customer after only a short period. Thus, even if the Commission were to adopt a similar approach to allow new entrants in Florida to pay nonrecurring charges over an extended period of time, such a program could not eliminate the significant and long-term anti-competitive effect that excessive nonrecurring charges have on competitive carriers seeking to enter and stay in the Florida market. The Commission must therefore conduct a thorough review of the high nonrecurring charges that the Florida incumbents have proposed and eliminate all cost elements that exceed efficient, forward-looking economic costs.

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1	Ш.	ISSUE 9(B): SUBJECT TO THE STANDARDS OF THE FCC'S THIRD
2		REPORT AND ORDER, SHOULD THE COMMISSION REQUIRE
3		ILECS TO UNBUNDLE ANY OTHER ELEMENTS OR
4		COMBINATIONS OF ELEMENTS? IF SO, WHAT ARE THEY AND
5		HOW SHOULD THEY BE PRICED?
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7	Q.	In addition to the unbundled network elements identified in Issue 9(a) of
8		the Commission's Issue List, BST has proposed costs and rates relating to
9		line sharing splitters (element J.4). Should the Commission address line
10		sharing in this proceeding?
11	A.	No, it should not. All parties to this proceeding, including BST, had
12		previously stipulated that line sharing issues would not be considered in this
13		proceeding. See ¶ 5 of the "Stipulation of Certain Issues and Schedule of
14		Events" approved by the Commission in Order No. PSC-99-2467-PCO-TP
15		issued on December 17, 1999. Therefore, the Commission should address
16		rates for line-sharing-related elements, including splitters, in a different forum.
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18	Q.	Does that conclude your testimony at this time?
19	A.	Yes, it does.

MS. KEATING: And, finally, is FCTA's Witness Barta. CHAIRMAN DEASON: Witness Barta's prefiled testimony without objection shall be inserted into the record. MS. KEATING: And Witness Barta has Exhibits WJB-1 through WJB-5. CHAIRMAN DEASON: Those exhibits shall be identified as Exhibit 51, and without objection shall be admitted. (Exhibit 51 marked for identification and admitted into the record.) 

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accounting functions, and to supervise the monthly book close and preparation of the financial statements. In 1980, I enrolled in the graduate business program at Emory University and received my Masters of Business Administration with concentrations in finance and marketing.

After graduating from Emory University in 1982, I joined the Bell System as an Account Executive where I was responsible for the sale/lease of regulated products and services to large business customers. In late 1983, I transferred to AT&T Communications where I provided a broad range of accounting regulatory support functions to the nine state Southern Region.

From 1986 through 1988, I held various positions in the regulatory departments of Contel Corporation, an independent local exchange carrier. My responsibilities ranged from tariff support to ratemaking and rate design issues to line of business feasibility studies.

In April 1988, I joined the firm of J. Kennedy and Associates, Inc., a regulatory and economic consulting firm. As a Manager at Kennedy and Associates, I directed or supported the ratemaking investigations of major telecommunications and electric utilities. My work covered rate design, revenue requirements analysis, and the determination of the appropriate cost of capital and other issues associated with traditional rate base/rate of return regulation.

have conducted management and compliance audits of regulated telecommunications and electric utilities. I have examined utilities' filings regarding other matters such as merger proposals, alternative regulation requests,

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affiliate relationships, network modernization proposals, and emerging competition.

Since the passage of The Telecommunications Act of 1996, I have participated in numerous regulatory proceedings initiated in response to the Act's procompetitive mandates. The policy and technical issues addressed in these proceedings include universal service and access charge reform, interim and permanent pricing for local interconnection and unbundled network elements, avoided retail cost studies for resale purposes, evaluation of local number portability cost studies, assessment of Contract Service Arrangements, reciprocal compensation for intercarrier local exchange traffic, and the mediation of joint use pole disputes.

#### Do you hold any professional certifications? Q.

- Yes. I am a Certified Fraud Examiner and a Certified Public Accountant with an A. active license to practice in the State of Georgia.
- Please provide a brief overview of your experience that is germane to this Q. proceeding.
- The Florida Public Service Commission has initiated the instant proceeding in A. order to establish permanent, deaveraged rates for unbundled network elements ("UNEs") that the incumbent local exchange carriers must provide to requesting carriers in Florida. I have been involved and/or testified in state regulatory proceedings that have addressed the policy and cost issues surrounding the implementation of UNE rates. In these proceedings, I have had the opportunity

to become familiar with the cost methodology and the cost proxy models sponsored by the carriers in support of their proposed UNE rates. During the course of my analysis, I have reviewed the model platform and default input values of the TELRIC Calculator, the Benchmark Cost Proxy Model, the Integrated Cost Model, the Hatfield Model, and most recently, the Hybrid Cost Proxy Model ("the HCPM") developed by the Staff of the Federal Communications Commission ("the FCC"). The output of some of these forward-looking economic cost models is being considered in this proceeding in support of the rates for deaveraged UNEs and UNE combinations.

Additional detail with respect to my qualifications can be found in Exhibit\_(WJB-1).

# Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of the Florida Cable Telecommunications Association ("the FCTA").

# Q. What is the purpose of your testimony?

A. The purpose of my testimony is to discuss many of the issues that the Commission has ordered to be addressed in the prefiled testimony to be submitted on June 8, 2000. Specifically, my testimony addresses Issue nos. 6, 7(b), 7(c), 7(d), 7(t), 7(u), 9(b), and 13 of the Commission's list of issues.

## Q. Please summarize your testimony.

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The Commission has initiated this proceeding in order to establish permanent prices for unbundled network elements and UNE combinations. The primary consideration of the Commission in its efforts to establish permanent rates for unbundled network elements and UNE combinations is to base the rates upon fully supported cost studies that closely follow the appropriate costing methodology. If appropriate cost-based rates are developed, then the attendant concerns of regulators, the incumbent local exchange carriers, and other parties should be satisfied. Appropriate cost-based rates will promote fair and responsible competitive entry under the requirements of the Telecommunications Act of 1996 and will protect the incumbent local exchange carriers as the providers of the facilities necessary to provision the unbundled network elements and UNE combinations.

The complexity and magnitude of the ILECs' filings have prohibited a comprehensive examination of the key areas of the TELRIC studies within the ordered procedural schedule. Nevertheless, it is evident from the initial review of the carriers' cost studies that the expenses subject to recovery (and the resulting UNE rates) appear overstated.

There are many examples within the cost studies that suggest the costs are higher than would be expected on a forward-looking basis. For instance, recurring capital costs are overstated as a result of the carriers adopting aggressive capital recovery rates and assuming high costs of capital. In addition, the forecasted operating expenses exceed existing levels which is contrary to the carriers' own declining cost trends experienced over the last several years.

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proposed common costs do not exclude the appropriate amount of avoided retail costs, thereby burdening the wholesale UNE market with unnecessary expenses.

The Commission is urged to modify the carriers' TELRIC studies in order to develop more reasonable rates for unbundled network elements and UNE combinations. It is also important that opportunities be afforded to undertake a comprehensive examination of each area of the ILECs' TELRIC studies.

Q. When is it appropriate for nonrecurring costs to be recovered through recurring rates (Issue 6)?

As a general principle, the recovery of the ILECs' one-time costs should be recovered through nonrecurring charges. But it is a common practice in the telecommunications industry to recover nonrecurring costs through recurring charges. In many instances, it may be more appropriate for the ILEC to recover its nonrecurring costs through recurring rates over a reasonable period of time. For instance, construction costs incurred by the ILEC to provide an individual subscriber or CLEC a requested telecommunications service may be recovered over period of time rather than through a nonrecurring charge. The ability to spread the nonrecurring charge over a reasonable period of time reduces the immediate financial burden that would be imposed upon the requesting party.

The ILECs' costs to develop operational support systems ("OSS") and the electronic interfaces that will provide connectivity for competing local exchange carriers should also be recovered through recurring rates in lieu of nonrecurring charges. The benefits of the enhanced OSS will extend beyond the one time,

nonrecurring cost charged to a competing carrier. Instead, the ILECs should capitalize the expenses associated with the development of electronic gateways and system enhancements over the economic life of the OSS. This will more appropriately match the costs with the expected benefits of the investment.

## How are depreciation charges recovered in the ILECs' TELRIC studies Q. (Issue 7(b))?

Depreciation charges are treated as a recurring capital cost in the ILECs' A. TELRIC studies.

### What are the appropriate standards that the ILECs should follow in Q. developing depreciation lives for the purpose of their TELRIC studies?

A.

Since the ILECs are required to submit forward-looking economic cost studies, economic depreciation rates that reflect the forward-looking lives of the network facilities and the economic value of those assets should be used in the TELRIC studies. Theoretically, the economic depreciation rate results in the systematic reduction in the book value of the asset that makes the book value equal to its market value. The plant specific depreciation lives that are used to develop TELRIC costs should be based upon the expected economic lives at the least cost, currently available plant.

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Depreciation lives based upon forward-looking economic cost concepts are commonly referred to as projection lives or "P-Lives." P-Life depreciation rates are distinct from other depreciation lives, such as remaining lives or average service lives, that reflect historical plant deployments.

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for projection lives information is available regarding What telecommunications plant?

The Federal Communications Commission prescribes a range of projection lives for over thirty categories of telecommunications plant on an individual carrier basis. The FCC developed the projected depreciation lives based upon detailed analysis that considered the most recent plant retirement patterns, the individual carrier's plans, and the current technological developments and trends.

Do you believe the projection lives developed by the FCC represent the best information available regarding a local exchange carrier's capital recovery?

Yes. The FCC has conducted extensive studies of each major local exchange carrier's network facilities. In the course of its depreciation studies, the FCC reviews each carrier's plant studies and future network plans. The projection lives are developed in consideration of the carrier's plant studies as well as industry trends and technological advances and patterns. In addition, the FCC meets with the state Commission Staffs in order to discuss market conditions confronting individual carriers and the status of its network.

Do you recommend that the FCC depreciation lives be used in the ILECs' Q. **TELRIC studies?** 

Based upon the FCC's broad industry experience and expertise, its prescribed projection lives and future net salvage estimates should be used to calculate the ILECs' TELRIC estimates. The forward-looking depreciation lives and future net salvage estimates prescribed by the FCC are grounded in a comprehensive examination and offer an objective alternative to the capital recovery rates proposed by the carriers.

The FCC has not prescribed rates in the case of the Sprint operating companies. In lieu of FCC specific rates, the capital recovery rates adopted by the FPSC for Sprint should be used in the cost proxy model. It should be noted that Sprint has already adopted these rates as its model input values: "In this filing, however, Sprint has made what it hopes the Commission will find to be an appropriate and practical concession, and has used the depreciation lives ordered by this Florida Commission in the Universal Service Fund Docket No. 990696-TP" (Direct Testimony of Mr. Kent W. Dickerson, page 11, lines 11 through 15).

The carrier proposed rates and the FCC-prescribed rates for BellSouth and GTE can be found in Rebuttal Exhibit (WJB-2).

Q. Is there any support that the FCC's prescribed projection lives and future net salvage rates for BellSouth and GTE have resulted in forward-looking economic depreciation rates?

Yes. A review of the relationship between the depreciation reserve level and the balance of plant in service reported by BellSouth and GTE through the carriers' ARMIS filings suggest that the FCC's prescribed depreciation rates have resulted in forward-looking, economic depreciation rates. The depreciation reserve level is frequently used as an indicator of the efficiency of the capital recovery process. It is equal to the accumulation of historic depreciation accruals net of plant

retirements. The depreciation reserve level reflects the amount of the ILECs' original investment that has been returned to the carriers by its customers.

A key relationship exists between a carrier's depreciation reserve level and its plant in service balance. In the face of a growing plant in service balance, the carrier would be expected to report a lower depreciation reserve level relative to the plant in service balance, absent any change in the level of its depreciation accruals and its normal retirement pattern. On the other hand, a higher percentage of depreciation reserve level relative to the plant in service balance would tend to indicate that the carrier is recovering the return of its investment over a more accelerated period of time through its depreciation accruals. The higher depreciation accruals suggest that the economic lives of the plant in service have been shortened to reflect technological and/or market considerations.

The plant in service balance of BellSouth has increased nearly 36% from \$8.9 billion to \$12.1 billion during the period of 1991 through 1999. In 1991, the depreciation reserve level represented 50.37% of BellSouth's plant in service balance. By 1999, the depreciation reserve level had grown to reflect 67.25% of the company's plant in service balance.

The plant in service balance of GTE has grown nearly 47% from \$3.2 billion in 1991 to \$4.7 billion in 1999. The accumulated depreciation reserve level, however, has outpaced the growth in the carrier's plant in service. In 1991, the depreciation reserve level represented 41.93% of GTE's plant in service balance.

By 1999, the depreciation reserve level represented 68.64% of the company's plant in service balance.

The fact that the growth in the carriers' depreciation reserve levels has exceeded the substantial growth in the plant in service balances is evidence of the FCC's commitment to prescribe forward-looking, economic depreciation rates. An analysis of the carriers' depreciation reserve levels and plant in service balances can be found in Rebuttal Exhibit (WJB-3).

### Q. What overall cost of capital has been assumed by each of the ILECs in their cost proxy models (Issue 7(c))?

A,

In developing its TELRIC studies, BellSouth uses a cost of debt of 7.0% and a cost of equity of 14.08%. A debt ratio of 40% is used which results in an overall cost of capital of 11.25%. The projected overall cost of capital mirrors the current interstate rate of return of 11.25% authorized by the FCC. BellSouth asserts that the default model input value of 11.25% is reasonable and that its actual investor-required rate of return, as estimated by its cost of capital witness, is in the range of 14.61% to 14.91%.

The 12.737% overall cost of capital projected by GTE for use in the ICM is based upon a cost of debt of 7.03% and a cost of equity of 14.3627%. The capitalization ratios are assumed to be a debt ratio of 22.1657% and an equity ratio of 77.8343%.

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Sprint forecasts an overall cost of capital of 13.19% for use in the BCPM 3.1. The 13.19% overall rate of return is comprised of a cost of debt of 8.08% and a cost of equity of 13.78%. A capital structure consisting of 10.36% debt and 89.64% equity is assumed.

What observation do you have regarding the cost of capital assumed by the carriers in the cost proxy models?

The most striking observation is the widely divergent capital structures that are projected to be employed by the carriers. Sprint and GTE assume that their capital structures will consist of approximately 90% and 78% equity, respectively. BellSouth, on the other hand, is much more realistic and projects a capital structure with a debt ratio of 40%. As a fundamental operating principle, the carriers are obligated to their shareholders, customers, and regulators to deploy the most efficient, low cost capital structure. But equity ratios that approach 80% or 90%, in tandem with high cost of equity estimates, unnecessarily increase the overall cost of capital. To the detriment of retail and wholesale customers, the inflated cost of capital will be designed into the carriers' rates. The equity-rich capital structures proposed by Sprint and GTE should be rejected in favor of the more realistic debt ratio presented by BellSouth.

Do you believe the FCC's benchmark rate of return is a suitable proxy for Q. use in the carriers' forward-looking economic cost models?

Not necessarily. It is likely that the forward-looking cost of capital for each of A. the ILECs falls below the FCC's benchmark rate of return of 11.25% which has

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been used since 1990. The appropriate cost of capital should recognize current capital market conditions as well as those that are likely to be encountered during the rate effective period. In addition, the cost of capital should reflect the lower business risk attributed to the inherent efficiencies derived from the incumbent local exchange carriers' network economies of scale and scope.

The authorized intrastate cost of capital for a regulated utility is typically decided by the Commission after hearing testimony from the parties participating in the proceeding. The cost of capital input value in each of the ILECs' cost proxy models should be adjusted once the Commission reaches its decision regarding the appropriate forward-looking cost of capital.

#### What tax rates should be used in the cost proxy models (Issue 7(d))? Q.

The tax rates used in the cost proxy models should reflect the current federal and state income tax rates. The currently effective ad valorem and property tax rates should also be adopted for use in the cost proxy models. The carriers' approaches to estimating the currently effective ad valorem and property tax rates appear reasonable. The composite income tax factor used in the cost proxy models reflects a state corporate income tax rate of 5.5%.

# How significantly do the assumptions regarding operating expenses affect Q. the results of the models (Issue 7(t))?

The level of operating expenses greatly affects the cost estimates generated by the models to provide unbundled network elements and UNE combinations. The carriers' assumptions regarding inflation and productivity, as well as the reliance

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upon historic relationships between expense and investment levels, can result in TELRIC studies that overstate the ILECs' need for cost recovery.

#### How are the operating expenses developed in the ILECs' cost proxy models? Q.

- The operating expenses proposed to be recovered by the ILECs are estimated by massaging base period expense levels through a series of adjustments and factors. The base year expenses may then be adjusted through inflation factors and productivity offsets as well as "normalization" adjustments in an effort to make the baseline data representative of forward-looking conditions. Other adjustments may also be proposed such as an avoided retail expense adjustment, activity based cost adjustments, special study adjustments, and shared and common cost adjustments. Annual charge factors are also developed under a costing pool methodology that assigns individual plant and expense account activity to one or more cost pools.
- What analyses have you conducted to determine the reasonableness of the Q. ILECs' estimate of the forward-looking operating expenses included in their **TELRIC studies?** 
  - I am in the process of reviewing the carriers' cost proxy model input values, formulas, and other documentation supporting the cost study methodology. A comprehensive review is difficult to complete in a timely manner due to a The cost proxy models are complex and the number of considerations. supporting documentation is voluminous. Tracing the unadjusted base year individual account expenses through a series of adjustments made to recast the cost information as forward-looking is, at best, a time-consuming task.

Q.

A.

Nevertheless, it is important to understand how the cost proxy models develop the forward-looking expenses and how the ultimate expense levels can be affected by the modifications that may be proposed by the parties challenging the ILECs' cost studies.

Have you reached any tentative conclusions regarding the reasonableness of the level of operating expenses included in the ILECs' cost studies?

Yes. The results of my preliminary analyses suggest that the operating expenses included in BellSouth's and GTE's TELRIC studies appear overstated and not representative of forward-looking conditions. For instance, the inflation factor of 3.2% to 3.5% assumed by BellSouth exceeds the productivity offset of 3.1% resulting in a growing level of expenses each year during the forecast period. GTE has made an initial series of adjustments to its base year expenses (i.e. 1998 ARMIS data) that actually increase the operating expenses prior to other adjustments.

One would expect lower levels of operating expenses to be projected on a forward-looking basis assuming the network configurations of the cost proxy models embrace the most efficient, least cost technology and the engineering and operating practices of the carrier reflect productivity enhancements. Indeed, as depicted in Rebuttal Exhibit\_\_(WJB-4), the trend of BellSouth's and GTE's Florida operations indicate declining expense levels on a per access line basis over the last several years. Therefore, an ILEC's proposal to recover a level of operating expenses that exceeds its incurred costs should undergo rigorous scrutiny. I will continue to conduct analyses of the operating expenses included

in the ILECs' TELRIC studies. Depending upon the materiality of my findings, it may be necessary to submit supplemental direct testimony.

### What are common costs (Issue 7(u))?

- Common costs refer to those costs that are common to all products and services of the ILECs. These costs cannot be identified with the provision of any specific service or group of services.
- How do the ILECs propose to recover the common costs that have been
- The carriers propose to recover their projected common costs through a uniform mark-up applied to the unbundled network elements and UNE combinations. BellSouth proposes a mark-up of 6.24%, GTE advocates a "fixed allocator" of 18.1%, and Sprint caps the common cost mark-up at 15.00%.
- Have you had the opportunity to fully examine the cost studies supporting the ILECs' proposed common costs?
- No. The magnitude and complexity of all of the carriers' filings have prohibited me from conducting a comprehensive analysis of the cost studies supporting the ILECs' proposed common costs. Nevertheless, my initial review has identified an item that materially overstates the level of BellSouth's and GTE's proposed
  - As part of their effort to develop forward-looking expenses subject to recovery through UNE rates, the carriers have made an adjustment to exclude the retail

costs that will be avoided in the wholesale environment. The avoided retail cost adjustment, however, appears to understate the level of costs that should be excluded from the TELRIC studies. BellSouth claims that the percentage of retail costs to be excluded on a forward-looking basis is 11.20%. The results of the GTE TELRIC studies indicate that only 8.30% of its forward-looking expenses are attributed to retail costs.

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The avoided retail cost adjustment should reflect the wholesale percentage discount ordered by the Florida Public Service Commission for each carrier. In the case of BellSouth, the FPSC ordered a resale discount of 21.83% for residential customers and 16.30% for business customers. The avoided retail cost discount ordered for GTE is 13.04%. The impact of substituting the Commission-ordered wholesale percentage discounts for each carrier's proposed avoided retail costs can be found in Rebuttal Exhibit\_(WJB-5).

- Subject to the standards of the FCC's Third Report and Order, should the Commission require ILECs to unbundle any other elements or combinations of elements? If so, what are they and how should they be priced (Issue 9(b))?
- At this time, the non-rural ILECs should be required to adhere to the network unbundling standards identified by the FCC in its Third Report and Order in CC Docket 96-98. But if access to any of the unbundled network elements that have been removed from the FCC's list of minimum unbundling requirements proves to be only available at noncompetitive rates, or under unacceptable service

Q.

A.

(Issue 13)?

The ILECs should be provided reasonable time to conform their billing and any. other administrative systems to incorporate the deaveraged network unbundling

When should the recurring and nonrecurring rates and charges take effect

requirements ordered by the Commission. It seems reasonable that the rates

should become effective 30 days to 90 days after the Commission issues its order

in the proceeding unless the carriers are able to demonstrate that they cannot

comply within the specified timeframe.

unbundling of the network elements at issue.

Does this conclude your testimony? Q.

Yes. A.

1	MS. KEATING: And unless I have skipped
2	somebody, I believe that covers
3	COMMISSIONER JABER: Mr. Chairman, what were
4	Exhibits 38 and 39?
5	CHAIRMAN DEASON: Okay. Thirty-eight is
6	prefiled exhibits for Witness Varner, and 39 prefiled
7	exhibits, Witness Caldwell.
8	COMMISSIONER JABER: Thank you.
9	CHAIRMAN DEASON: Okay. Are we now ready to
10	proceed with live testimony?
11	MS. KEATING: I believe so.
12	CHAIRMAN DEASON: I believe Witness Cunningham
13	is the first scheduled witness.
14	MS. WHITE: Yes, Chairman.
15	Whereupon,
16	GUY DAVID CUNNINGHAM
17	was called as a witness on behalf of BellSouth
18	Telecommunications, and having been duly sworn, testified a
19	follows:
20	DIRECT EXAMINATION
21	BY MS. WHITE:
22	Q Mr. Cunningham, could you please state your name
23	and address for the record.
24	A Yes. My name is Guy David Cunningham. My
25	address is SE9H, 3535 Colonnade Parkway, Birmingham,

	/6
1	Alabama 35243.
2	Q By whom are you employed and in what capacity?
3	A I am employed by BellSouth Telecommunications,
4	Incorporated, and I am a director in the finance
5	organization.
6	Q Have you caused to be prepared and prefiled in
7	this case direct testimony consisting of 14 pages and
8	rebuttal testimony consisting of 17 pages?
9	A Yes.
LO	Q Do you have any substantive decisions to make t
.1	that direct or rebuttal testimony at this time?
L2	A No.
L3	Q If I were to ask you the questions that are
.4	contained your direct and rebuttal testimony today, would
L5	your answers be the same?
L6	A Yes.
L7	MS. WHITE: I would like to have the direct and
8.	rebuttal testimony of Mr. Cunningham inserted into the
.9	record as if read.
20	CHAIRMAN DEASON: Without objection, the direct

21 and rebuttal testimony shall be so inserted.

BY MS. WHITE:

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And in connection with your direct and rebuttal testimony, Mr. Cunningham, did you have five exhibits?

Α Yes, ma'am.

1	Q And those exhibits were labeled GDC-1 through 5
2	A Correct.
3	Q Do you have any changes or corrections to those
4	exhibits?
5	A Nothing substantial.
6	Q I don't know whether I should follow up on that
7	or not.
8	A There are a couple of word changes on a couple
9	of pages. But I will be glad to give those to you if you
LO	would like me to. They are back in the 380-page
1	depreciation study.
.2	Q We will let you file those maybe as a
L3	late-filed, if that is okay with the Chairman.
L <b>4</b>	A Okay.
L5	MS. WHITE: I would ask that the exhibits
.6	attached to Mr. Cunningham's testimony be identified for
17	the record.
8.	CHAIRMAN DEASON: The exhibits shall be
L9	identified as Exhibit 52.
20	(Exhibit 52 marked for identification.)
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1		BELLSOUTH TELECOMMUNICATIONS, INC.
2		DIRECT TESTIMONY OF G. DAVID CUNNINGHAM
3		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4		DOCKET NO. 990649-TP
5		MAY 1, 2000
6		
7	Q.	PLEASE STATE YOUR NAME, ADDRESS AND POSITION WITH
8		BELLSOUTH TELECOMMUNICATIONS, INC. (HEREINAFTER
9		REFERRED TO AS "BELLSOUTH" OR "THE COMPANY").
10		
11	A.	My name is G. David Cunningham and my business address is 3535
12		Colonnade Parkway, Birmingham, Alabama 35243. My position is
13		Director in the Finance Department of BellSouth.
14		
15	Q.	PLEASE GIVE A BRIEF DESCRIPTION OF YOUR EDUCATIONAL
16		BACKGROUND AND BUSINESS EXPERIENCE IN THE
17		TELECOMMUNICATIONS INDUSTRY.
18		
19	A.	I graduated from Morehead State University, Morehead, Kentucky in
20		1971 with a Bachelor of Arts Degree in Economics. I was employed by
21		South Central Bell in 1972 and held various staff and line assignments
22		in the Kentucky Network Operations Department until mid-1983. In
23		July of 1983, I moved to Birmingham, Alabama with BellSouth
24		Services, Inc., holding positions in the Corporate Affairs Department
25		and later in the Regulatory Department. My current assignment

1		includes responsibility for Regulatory and Depreciation concerns within
2		the Finance organization.
3		
4	Q.	WHAT ARE YOUR CURRENT JOB DUTIES AND
5		RESPONSIBILITIES?
6		
7	A.	I am responsible for the preparation of depreciation studies for the nine
8		states comprising BellSouth to determine appropriate depreciation
9		parameters and depreciation rates for booking purposes and to meet
10		regulatory requirements as necessary.
11		
12	Q.	HAVE YOU PREVIOUSLY APPEARED IN REGULATORY
13		PROCEEDINGS REGARDING DEPRECIATION ISSUES?
14		
15	A.	Yes. I have testified and also participated in workshops before various
16		state commissions regarding depreciation. I have served as
17		BellSouth's chief representative on several occasions in negotiations
18		with the Federal Communications Commission (FCC) and the various
19		state commissions in depreciation represcription meetings.
20		
21	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
22		
23	A.	The purpose of my testimony in this proceeding is to present the
24		economic lives that BellSouth has determined to be appropriate for use
25		in the cost studies.

1		
2	Q.	WHAT LIVES DOES BELLSOUTH CONSIDER TO BE APPROPRIATE
3		FOR USE IN THE COST STUDIES?
4		
5	A.	The asset lives that BellSouth has determined to be appropriate for use
6		in the cost studies are included in Exhibit GDC-1. These are
7		BellSouth's expected economic lives for newly placed plant.
8		
9	Q.	WHAT IS THE SOURCE OF THE LIVES BELLSOUTH CONSIDERS
10		TO BE APPROPRIATE FOR USE IN THE COST STUDIES?
11		
12	A.	The source of the lives BellSouth has determined to be appropriate for
13		use in the cost studies is the 2000 BellSouth Florida Depreciation
14		Study, attached to this testimony as Exhibit GDC-2. Projection
15		(economic) lives are defined as the average life expectancy of new
16		additions to plant. The depreciation study also describes average
17		remaining lives and depreciation rates to be used for depreciation
18		booking purposes. These parameters, however, relate to embedded
19		investment and are not appropriate for use in the cost studies.
20		
21		Although this is not a depreciation proceeding, the depreciation study
22		included as Exhibit GDC-2 is being provided to demonstrate the
23		appropriateness of the data.
24		
25		

1		BellSouth prepared the detailed depreciation study in this exhibit,
2		analyzing the various asset accounts to determine appropriate
3		depreciation parameters for each account. The depreciation study
4		provides explanations of methodology, data and analysis that support
5		the asset lives and other depreciation parameters for asset accounts,
6		including those accounts that are used in the cost studies.
7		
8	Q.	PLEASE SUMMARIZE BELLSOUTH'S APPROACH IN DETERMINING
9		THE ASSET LIVES APPROPRIATE FOR USE IN THE COST
10		STUDIES.
11		
12	A.	As demonstrated in the attached depreciation study, numerous
13		methods are utilized to determine the appropriate economic lives of the
14		different asset accounts. One factor used in determining the
15		appropriate lives of all accounts is an analysis of Company planning
16		data. This data is useful in assessing the near term portion of the life
17		cycles of most assets, and is particularly useful when the technology is
18		near the end of its life cycle.
19		
20		A second factor used in assessing the life of an account is normal
21		mortality, i.e., wear and tear with usage, deterioration with age and
22		accidental removal, breakage, or damage. The technique used to
23		assess normal mortality is called Historical Mortality Analysis. For
24		some accounts, like poles, Company planning data and normal
25		mortality alone are the major considerations in determining the life. In

1		these cases, the Company does not expect that the luture
2		characteristics of this type of plant will differ significantly from the past.
3		
4		In cases where a newer technology is substituting for an established
5		embedded technology, use of Company planning data and the
6		Historical Mortality Analysis alone to assess the life will generally result
7		in an inappropriately long life. Over the long term, the substitution of a
8		new technology for the old is the primary force driving the displacement
9		of the old technology. Therefore, after initial deployment of the new
10		technology, life analysis techniques that take into account technological
11		substitution must also be used. These technology-sensitive accounts
12		(that is, Digital Electronic Switching, Digital Circuit, Aerial Metallic
13		Cable, Underground Metallic Cable, Buried Metallic Cable) comprise
14		more than 70% of BellSouth's total plant investment.
15		
16	Q.	HOW DO THE LIVES BELLSOUTH CONSIDERS TO BE
17		APPROPRIATE FOR USE IN THE COST STUDIES COMPARE TO
18		THE LIVES USED TO DETERMINE THE DEPRECIATION RATES
19		BOOKED BY BELLSOUTH IN FLORIDA?
20		
21	A.	The economic lives BellSouth considers to be appropriate for use in the
22		cost studies are consistent with those used to determine the
23		depreciation rates currently being booked in Florida for intrastate and
24		for external reporting purposes.
25		

1		With implementation of Price Regulation, BellSouth was given authority
2		to establish its own depreciation rates in Florida for intrastate purposes
3		As a result, BellSouth uses the lives supported by the depreciation
4		study in Exhibit GDC-2 to determine depreciation rates booked in
5		Florida for intrastate purposes, as well as external reporting purposes.
6		
7	Q.	HAS THE FCC PRESCRIBED LIVES TO BE USED IN FLORIDA TO
8		DETERMINE DEPRECIATION RATES ON AN INTERSTATE BASIS?
9		
10	A.	Yes. Lives were last prescribed by the FCC in 1995 for booking
11		depreciation expense on an interstate basis in Florida.
12		
13	Q.	DO YOU BELIEVE THAT LIVES PRESCRIBED BY THE FCC ARE
14		APPROPRIATE FOR THIS APPLICATION?
15		
16	A.	No, I do not.
17		
18	Q.	WHY ARE THE LIVES PRESCRIBED BY THE FCC FOR
19		INTERSTATE DEPRECIATION PURPOSES NOT APPROPRIATE
20		FOR USE IN THE COST STUDIES?
21		
22	A.	Lives were last prescribed by the FCC in Florida in 1995. These lives,
23		particularly for the technology-sensitive accounts, are much too long.
24		They are based on the old regulatory paradigm in which plant lives
25		were artificially lengthened beyond their true economic lives so that the

investment in that plant would be recovered in smaller year-to-year increments over longer periods of time. The assumption under this paradigm was always that BellSouth was entitled to and would recover all of its investments, but over a longer period of time, thus reducing the amount the customer paid in the short term.

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In today's competitive environment, however, the marketplace is not likely to allow BellSouth to recover investment based on lives that are inappropriately long. The rapid changes in technology, which BellSouth must embrace in order to stay competitive, shorten asset lives significantly beyond what the FCC has prescribed. BellSouth has emphasized to the FCC many times that substantially more progress is needed in moving to lives that adequately reflect the current pace of technology and competitive changes. In fact, BellSouth has made clear to the FCC its position that BellSouth should be allowed to establish its own interstate depreciation rates, as it does in Florida and other states for intrastate purposes with implementation of Price Regulation. BellSouth agrees with FCC Commissioner Harold Furchtgott-Roth in his Concurring Statement attached to an April 3, 2000, Further Notice of Proposed Rulemaking in CC Docket No. 98-137, "As I indicated last year, I do not believe that the Commission's depreciation requirements continue to serve a useful purpose."

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BellSouth's recommended lives, which are supported by the depreciation study, are significantly shorter than those prescribed by

1		the FCC, particularly for the technology-sensitive accounts. As
2		previously stated, these lives are used to determine depreciation rates
3		booked in Florida for intrastate purposes and for external reporting
4		purposes. Prior to implementation of Price Regulation in Florida, the
5		Florida PSC established intrastate depreciation rates for BellSouth, and
6		were considerably more progressive than the FCC in determining
7		appropriate lives for depreciation purposes. The Florida PSC
8		historically prescribed Average Remaining Lives, not "Projection",
9		economic lives as used in the cost studies. However, projection lives
0		corresponding to the Average Remaining Lives last prescribed by the
1		Florida PSC for intrastate depreciation purposes can be determined,
2		and are shown in Exhibit GDC-3.
13		
14	Q.	DID THE FLORIDA COMMISSION STAFF'S APRIL 29, 1998,
15		FINDINGS IN DOCKET NO. 960833-TP RECOMMEND LIVES
6		CONSISTENT WITH BELLSOUTH'S PROPROSAL FOR THE MAJOR
7		TECHNOLOGY-SENSITIVE ACCOUNTS?
18		
19	A.	No. For the five major technology-sensitive accounts (Digital Electronic
20		Switching, Digital Circuit, Aerial Metallic Cable, Underground Metallic
21		Cable, and Buried Metallic Cable), the Commission ordered that FCC-
22		prescribed lives be used. However, in Florida Universal Service
23		proceedings, Docket No. 980696-TP, the order dated January 7, 1999,
24		included lives for the Digital Circuit account and the Digital Electronic
25		Switching account that were shorter than those ordered in Docket No.

1		960833-TP. The Staff cited, for example, recognition of the phase out
2		of asynchronous equipment, as Synchronous Optical Network
3		(SONET) equipment increases, as support for a shorter life for Digital
4		Circuit Equipment.
5		
6	Q.	WHAT SEEMED TO BE STAFF'S CHIEF CONCERNS WITH
7		BELLSOUTH'S RECOMMENDATIONS IN THE ABOVE TWO
8		PROCEEDINGS FOR THE ECONOMIC LIFE OF AERIAL,
9		UNDERGROUND AND BURIED METALLIC CABLE?
10		
11	A.	The main concerns specified by the Staff in these orders seem to focus
12		on the substitution model that BellSouth used in determining the life of
13		this equipment, and on the historical retirement patterns for metallic
14		cable.
15		
16	Q.	HOW DO YOU RESPOND TO THESE CONCERNS?
17		
18	A.	The substitution analysis technique used by BellSouth and recognized
19		in technical depreciation literature has been proven effective in
20		projecting the adoption of new technologies and the obsolescence of
21		old technologies. Since substitution analysis recognizes technological
22		obsolescence as the major cause of displacements, it is a more
23		appropriate life analysis method than Historical Mortality Analysis alone
24		for technology-sensitive asset accounts. Substitution analysis
25		examines patterns of technology substitution, and these patterns are

remarkably consistent from one substitution to another. This is a reliable method that has been developed and tested over many years in telecommunications and other industries.

For example, the substitution of metallic cable by fiber in the interoffice (IOF) portion of the network is a well established process, and illustrates the usefulness and accuracy of substitution analysis for determining economic lives. Forecasts made in the late 1980s regarding the penetration of fiber in the IOF have proven to be very close to the actual penetration that has occurred. In fact, the "end date," where fiber reached 99% of circuits in service, has occurred within a year of the date that was forecasted about a decade ago. Based on the accuracy of substitution analysis in the IOF, we have used the same method for the feeder and distribution. As expected, the rate of fiber penetration has not been as rapid as in the IOF due to lower traffic concentrations. However, the pattern of substitution has been similar and has proven to be useful in estimating economic lives.

Regarding the impact of historical retirement patterns on the life of technology-sensitive equipment, BellSouth does not believe that simply looking at the past is a proper approach for projecting the future of equipment sensitive to rapid changes in technology. Emphasis on historical retirement patterns is an indication that the future is not expected to vary significantly from the past. Even a casual observation of the telecommunications industry today leaves no doubt that there is

an evolution taking place that cannot help but have a major effect on telecommunications assets.

3

Q. SOME MAY BELIEVE THAT AN INCREASE IN THE DEPRECIATION
 RESERVE OVER TIME IS EVIDENCE THAT FCC-PRESCRIBED
 LIVES HAVE BEEN FORWARD-LOOKING. HOW DO YOU
 RESPOND?

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9 A.

The fact that the reserve has grown over time is not an indication that the reserve is at the appropriate level. The depreciation reserve is the accumulation of all past depreciation accruals, reduced by plant retirements. In an environment in which one technology is rapidly displacing another technology, it is obvious that the depreciation reserve must be built up by appropriate accruals to a level high enough to handle the inevitable asset retirements. Today, we have two situations in which a major technology displacement is occurring; specifically, digital is replacing analog, and fiber is replacing copper. Never in the history of this industry has technology displacement been so pronounced. Huge retirements of these old technologies are expected in bulk at the end of the technologies' life span. Depreciation accruals over the years have not been high enough, due to inappropriately long FCC-prescribed lives for copper and analog related assets, to position the depreciation reserve for the avalanche of retirements that will soon come.

25

1		The critical issue here is not just that the reserve has increased over
2		the past few decades. The issue is that the reserve has not increased
3		enough to handle retirements caused by the dramatic paradigm shift
4		that has occurred in the telecommunications industry.
5		
6	Q.	WHAT OTHER OBSERVATIONS DO YOU HAVE AS TO THE
7		INAPPROPRIATENESS OF USING LIVES PRESCRIBED BY THE
8		FCC IN BELLSOUTH'S COST STUDIES?
9		
0	A.	The FCC has emphasized historical data when prescribing BellSouth's
1		depreciation lives. As stated earlier, BellSouth does not believe that
2		simply looking at the past can possibly indicate what will happen in the
13		future with equipment that is sensitive to rapid changes in technology.
14		This rear-view mirror approach is clearly not appropriate for projecting
15		the future of this equipment.
16		
17		It is clear that forward-looking lives should be used for depreciation
18		purposes and in the cost studies. However, BellSouth believes that the
19		FCC has not properly assessed the impact of technological evolution
20		and increasing competition to determine appropriate forward-looking
21		lives. BellSouth's depreciation study, as demonstrated in Exhibit GDC-
22		2, provides detailed analysis to support forward-looking lives
23		significantly below those prescribed by the FCC, particularly for the
24		technology-sensitive accounts.
25		

1	Q.	ARE THE LIVES BELLSOUTH CONSIDERS TO BE APPROPRIATE
2		FOR USE IN THE COST STUDIES REASONABLE WHEN
3		COMPARED TO LIVES PROPOSED BY OTHER
4		TELECOMMUNICATIONS COMPANIES?
5		
6	A.	Yes. One comparison of lives can be found in Exhibit GDC-4, which
7		lists the lives that BellSouth recommends for the major technology-
8		sensitive accounts and the lives that the FCC last prescribed in 1994
9		for AT&T. As shown in this comparison, AT&T's depreciation life for
0		Digital Electronic Switching, for example, is 9.7 years. The life that
1		BellSouth recommends for this account is 10 years. The life prescribed
2		by the FCC in 1995 for BellSouth in Florida was an unrealistically long
13		16 years. The comparison in this exhibit demonstrates that, for all the
14		major technology-sensitive accounts, the lives that BellSouth
15		recommends are comparable or conservative when compared to the
16		lives last prescribed by the FCC for AT&T as shown in Exhibit GDC-4.
17		
18	Q.	PLEASE SUMMARIZE YOUR TESTIMONY.
19		
20	A.	BellSouth's Depreciation organization performed detailed analyses of
21		each asset account, and the resulting economic lives are appropriate
22		for use in the cost studies. The 2000 BellSouth Florida Depreciation
23		Study, which documents this analysis, is attached to this testimony as
24		Exhibit GDC-2. The lives prescribed by the FCC for depreciation
25		

1		purposes are inappropriately long, particularly for the technology-
2		sensitive accounts.
3		
4	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
5		
6	A.	Yes, it does.
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1		BELLSOUTH TELECOMMUNICATIONS, INC.
2		REBUTTAL TESTIMONY OF G. DAVID CUNNINGHAM
3		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4		DOCKET NO. 990649-TP
5		JUNE 29, 2000
6		
7	Q.	PLEASE STATE YOUR NAME, ADDRESS AND POSITION WITH
8		BELLSOUTH TELECOMMUNICATIONS, INC. (HEREINAFTER
9		REFERRED TO AS "BELLSOUTH" OR "THE COMPANY").
10		
11	A.	My name is G. David Cunningham and my business address is 3535
12		Colonnade Parkway, Birmingham, Alabama 35243. My position is
13		Director in the Finance Department of BellSouth.
14		
15	Q.	ARE YOU THE SAME G. DAVID CUNNINGHAM WHO FILED DIRECT
16		TESTIMONY IN THIS DOCKET?
17		
18	A.	Yes.
19		
20	Q.	WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?
21		
22	A.	The purpose of my testimony in this proceeding is to respond to the
23		direct testimony of Michael J. Majoros, representing AT&T and MCI,
24		the rebuttal testimony of William J. Barta, representing the FCTA, and
25		

1		the rebuttal testimony of Carol Bentley, representing Supra, regarding
2		the appropriate economic lives for use in BellSouth's cost studies.
3		
4	Q.	IN THEIR TESTIMONIES, MR. MAJOROS (ON PAGE 4) AND MR.
5		BARTA (ON PAGE 7) STATE THAT FORWARD-LOOKING LIVES
6		SHOULD BE USED IN THE COST STUDIES. DO YOU AGREE?
7		
8	A.	Yes, I do. The asset lives used in BellSouth's cost studies were
9		provided in Exhibit GDC-1 of my direct testimony. These lives are
10		supported by BellSouth's 2000 Florida Depreciation Study, which was
11		attached to my direct testimony as Exhibit GDC-2. The lives provided
12		in Exhibit GDC-1 are forward-looking lives that appropriately reflect the
13		impact of rapid technological changes taking place in the
14		telecommunications industry.
15		
16	Q.	WHAT IS THE BASIS OF THE LIVES THAT MR. BARTA AND MR.
17		MAJOROS RECOMMEND FOR USE IN BELLSOUTH'S COST
18		STUDIES?
19		
20	A.	Mr. Barta recommends on page 8 of his testimony that the projection
21		lives prescribed by the FCC for booking depreciation expense on an
22		interstate basis be used in the cost studies. Mr. Majoros states on
23		page 4 of his testimony that he recommends lives that are, with certain
24		exceptions, consistent with the lives set forth in the Florida PSC's Apri
25		

1		1998 UNE decision, as well as the FCC's 1995 prescription of
2		BellSouth's interstate depreciation rates in Florida.
3		
4	Q.	DO YOU AGREE THAT LIVES RESULTING FROM THE 1998 UNE
5		DECISION ARE APPROPRIATE?
6		
7	A.	No. Relying upon an agency decision rendered two years ago would
8		be misguided because establishing economic lives for regulatory
9		purposes can be a dynamic process. This is clear from the differences
10		in the Commission's determination of lives in its April 1998 Order in
11		Docket No. 960833-TP and the Commission's January 1999 Order in
12		the Universal Service Docket, No. 980696-TP. For example, the
13		January 1999 order reflected a life of 13 years for digital electronic
14		switching equipment, while the April 1998 order showed 16 years.
15		Also, the life ordered for digital circuit equipment was 8 years in
16		January 1999, a change from 10.5 years in the April 1998 order. While
17		BellSouth believes that the appropriate lives are those in Exhibit GDC-
18		1 of my direct testimony, reverting to lives ordered two decisions ago is
19		certainly an inappropriate step backwards.
20		
21	Q.	DO YOU AGREE THAT LIVES PRESCRIBED BY THE FCC ARE
22		APPROPRIATE TO USE IN THIS PROCEEDING?
23		
24	A.	No. As I stated in my direct testimony in this proceeding, the lives
25		currently prescribed by the FCC, particularly for the technology-

1		sensitive accounts, are much too long. While Mr. Majoros and Mr.
2		Barta opine that the projection lives prescribed by the FCC in the past
3		are forward-looking, neither can seriously claim that the FCC has
4		properly assessed the impact of technological evolution and increasing
5		competition to determine appropriate forward-looking lives.
6		
7		As I stated in my direct testimony, BellSouth currently establishes its
8		own depreciation rates for intrastate purposes in Florida, under
9		authority granted by Price Regulation implementation. However, when
10		the Florida PSC did establish intrastate depreciation rates to be
11		booked for BellSouth, they were considerably more progressive than
12		the FCC in determination of appropriate asset lives for depreciation
13		purposes.
14		
15		BellSouth's Depreciation Study, provided as Exhibit GDC-2 in my direct
16		testimony, provides detailed analysis to support forward-looking lives
17		significantly lower than those prescribed by the FCC, particularly for
18		the technology-sensitive accounts. Neither Mr. Majoros nor Mr. Barta
19		has presented any studies of their own that would support use of FCC-
20		prescribed lives in a forward-looking cost study.
21		
22	Q.	ON PAGE 7 OF HIS TESTIMONY, MR. MAJOROS REFERENCES A
23		STREAMLINED, SIMPLIFIED DEPRECIATION RATE-SETTING
24		PROCESS DEVELOPED BY THE FCC. HE GOES ON TO SAY THAT,
25		

1		WITH THE SIMPLIFIED APPROACH, "THE FCC REAFFIRMED ITS
2		FORWARD-LOOKING ORIENTATION". DO YOU AGREE?
3		
4	A.	No. The FCC's approach to simplification was to establish ranges of
5		projection life and future net salvage estimates for most of the asset
6		accounts. These ranges were developed by nothing more than taking
7		one standard deviation around the mean of the lives and salvage
8		values that the FCC had prescribed most recently for the various
9		accounts for the local exchange carriers. When the FCC first ordered
0		ranges, they were based on 1990-1992 represcriptions. (The FCC has
1		made a change to only one account since ranges were established;
2		that is, the low end of the range for the Digital Switching account was
3		changed to 12 years.) Lives prescribed eight to ten years ago could
4		hardly be considered forward-looking today.
5		
16	Q.	MR. MAJOROS (ON PAGE 8 OF HIS TESTIMONY) AND MR. BARTA
17		(ON PAGE 9 OF HIS TESTIMONY) POINT TO AN INCREASE IN THE
18		DEPRECIATION RESERVE OVER TIME AS EVIDENCE THAT FCC-
19		PRESCRIBED LIVES HAVE BEEN FORWARD-LOOKING. DO YOU
20		AGREE?
21		
22	A.	No. The fact that the reserve has grown over time is not an indication
23		that the reserve is at the appropriate level. The critical issue here is
24		not just that the reserve has increased over the past few decades. The
25		issue is whether the reserve has increased enough to handle

1		retirements that will occur because of the dramatic paradigm shift in the
2		telecommunications industry.
3		
4		It is interesting to compare the interstate reserve percentages for
5		BellSouth quoted by Mr. Barta, in Exhibit WJB-3, page 1 of 4, with
6		those included in Mr. Majoros's testimony in Exhibit MJM-5, page 1 of
7		2. Mr. Barta shows an end-of-year 1999 reserve percent for
8		BellSouth's Florida operations of 67.25%, while Mr. Majoros shows
9		54.1% for the same timeframe. It appears that Mr. Barta has chosen
0		reserve numbers that include items such as accrued liabilities and
1		deferred credits. These items have nothing to do with accumulated
2		depreciation associated with capital assets, and including them
3		erroneously inflates the interstate accumulated depreciation reserve
4		amount by as much as twenty percentage points. This error seems to
5		have led Mr. Barta to the mistaken conclusion on page 10 of his
6		testimony regarding FCC-prescribed lives, that "the economic lives of
7		the plant in service have been shortened to reflect technological and/or
8		market considerations".
9		
20	Q.	MR. MAJOROS PRESENTS HISTORICAL RETIREMENT RATES ON
21		PAGE 11 OF HIS TESTIMONY TO OFFER "CONFIRMATION OF THE
22		FORWARD-LOOKING UNBIASED NATURE OF CURRENT FCC
23		PRESCRIPTIONS". MS. BENTLEY SIMILARLY ADVOCATES
24		RELIANCE ON HISTORICAL DATA IN LIFE DETERMINATION ON

PAGE 7 OF HER TESTIMONY. HOW DO YOU RESPOND?

2 A.

Although they contend that the lives should be forward-looking, Mr. Majoros and Ms. Bentley focus on historical data, just as the FCC has done in prescribing BellSouth's depreciation lives. For example, Mr. Majoros admits on page 6 of his testimony that he uses this backward-looking approach to arrive at his recommended life of 25 years for fiber cable. Apparently, AT&T, on whose behalf Mr. Majoros is appearing, does not find that a 25-year life is fitting for its own fiber cable. AT&T's 1999 Annual Report to Shareholders states that "the useful lives of communications and network equipment range from three to 15 years." AT&T is not alone in this regard. For example, another ALEC operating in Florida, ITC DeltaCom, states in its 1999 Annual Report to Shareholders that its life for telecommunications equipment ranges from 5 to 20 years.

Mr. Majoros's rear-view mirror approach is clearly not appropriate for projecting the future of this equipment. BellSouth does not believe that simply looking at the past can possibly indicate what will happen in the future with equipment that is sensitive to rapid changes in technology. Emphasis on historical retirement patterns is an indication that one does not expect the future to vary significantly from the past. Even a casual observation of the telecommunications industry today leaves no doubt that there is an evolution taking place that cannot help but have a major effect on telecommunications assets.

1	Q.	ON PAGE 18 OF HIS TESTIMONY, MR. MAJOROS CHALLENGES
2		BELLSOUTH'S USE OF THE SUBSTITUTION ANALYSIS APPROACH
3		FOR DETERMINING THE LIFE OF TECHNOLOGY-SENSITIVE
4		ASSETS. WHAT IS YOUR REACTION TO HIS COMMENTS?
5		
6	A.	The substitution analysis technique used by BellSouth and recognized
7		in technical depreciation literature has proven effective in projecting
8		the adoption of new technologies and the obsolescence of old
9		technologies, as stated in my direct testimony. This is a reliable
10		method that has been developed and tested over many years in
11		telecommunications and other industries.
12		
13		On page 22 of his testimony, Mr. Majoros cites "tracking reports"
14		included in BellSouth's 1996 Depreciation Study to support his claim
15		that substitution analysis is not an accurate approach for determining
16		life. The introduction to that study made clear that the "track record"
17		information was provided to satisfy FCC study requirements and does
18		not represent the dollar value of expected retirements. Comparing
19		displaced units scaled to dollars with actual booked retirements is
20		totally inappropriate.
21		
22	Q.	MR. MAJOROS STATES ON PAGE 20 THAT SUBSTITUTION
23		ANALYSIS IS OF NO RELEVANCE IN DETERMINING THE LIFE FOR
24		DIGITAL SWITCHING EQUIPMENT BECAUSE IT APPEARS THAT
25		ASYNCHRONOUS TRANSFER MODE (ATM) SWITCHES WILL BE

1		DEPLOYED AS A SUPPLEMENT RATHER THAN A REPLACEMENT
2		FOR DIGITAL SWITCHES. HOW DO YOU RESPOND?
3		
4	A.	BellSouth's 2000 Florida Depreciation Study (included as Exhibit GDC
5		2 with my direct testimony) does state that ATM switches are not
6		currently seen as a direct replacement for digital switching. However,
7		the depreciation study clearly describes digital switches as modular,
8		with each module having its own life characteristics. Experience has
9		shown that component modules of digital switches are regularly
10		upgraded, rather than the switch being completely replaced, as was
11		done in older switching technologies. Individual modules are replaced
12		as required to satisfy the demand for new services or to eliminate
13		equipment incompatibilities and capacity limitations.
14		
15		An example of a digital switching modular component is the central
16		processor and memory component. The evolution of processor
17		technology continues to accelerate and is widely publicized. Much like
18		Personal Computer processors and memory where a new generation
19		becomes available about every six months, there is a new digital
20		processor available approximately every two to three years from each
21		major vendor.
22		
23		The substitution analysis approach is appropriately used to study the
24		life characteristics and to project the displacement of various
25		components of digital switching equipment.

Q. MR. MAJOROS STATES ON PAGE 16 OF HIS TESTIMONY THAT

COMPARING BELLSOUTH'S LIVES USED IN THE COST STUDIES

TO THE LIVES LAST PRESCRIBED BY THE FCC FOR AT&T IS

INAPPROPRIATE. DO YOU AGREE?

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7 A.

No. Much of the plant and equipment used to provide local and other telecommunications services by both AT&T and MCI WorldCom, on whose behalf Mr. Majoros is appearing, is identical to the plant and equipment used by BellSouth, or at least uses the same technology. Information available on the web sites of both AT&T and MCI WorldCom documents the use of plant and equipment such as fiber optic cable, digital switches, ATM switches, synchronous optical network (SONET) equipment, and Dense Wavelength Division Multiplexing (DWDM) equipment to provide services such as local voice and data, Digital Subscriber Line (DSL), Frame Relay, Internet Access and long distance – the same services offered by BellSouth, with the exception of long distance. Customer traffic carried by the networks of AT&T and MCI WorldCom is also carried by the networks of Local Exchange Carriers including BellSouth. Clearly, the economic value of assets owned by BellSouth, AT&T, MCI WorldCom, or any other ALEC is driven down similarly by technological obsolescence, increased competition, customer demand for new services and declining equipment prices.

25

1		One can in fact argue that there are factors that produce shorter life
2		expectancies for BellSouth than for ALECs such as AT&T or MCI
3		WorldCom. BellSouth's switches are more feature-rich because of the
4		many services that are needed by end-user customers. As these
5		services change and new services are developed, upgrades to both the
6		software and hardware are necessary. These upgrades lead to
7		replacement of components in the end-office switches. As AT&T and
8		MCI WorldCom expand further into provision of local service, as they
9		have publicly indicated they plan to do, these companies may find it
10		appropriate to reduce their lives even further.
11		
12	Q.	MR. MAJOROS EXPRESSED CONCERN ON PAGE 19 OF HIS
13		TESTIMONY REGARDING THE DEPLOYMENT OF NEW
14		TECHNOLOGIES TO SUPPORT BROADBAND SERVICES. DO YOU
15		HAVE COMMENTS REGARDING THESE CONCERNS?
16		
17	A.	Yes. Because of the capacity and reliability of fiber, it has been found
18		to be the economic choice for interoffice (IOF) and feeder. Fiber in the
19		distribution is economical for new developments as well as for normal
20		rehabilitation projects, based only on maintenance savings and the
21		revenues from services that could also be provided on copper. The
22		addition of fiber in a network does not make it a broadband network,
23		but fiber allows service providers to transport high traffic volumes,
24		which may include higher bandwidth services.
25		

Fiber has long been the economic choice in the IOF where the 1 displacement of copper is essentially complete. In the feeder, fiber 2 deployment is already at a significant penetration level. This, again, is 3 due to the advantages of fiber's high capacity, low maintenance and 4 reliability. Deployment of fiber in the distribution is also being driven 5 by these advantages. Fiber deployment in the feeder has proceeded 6 more rapidly than that in the distribution because traffic in the feeder 7 can be aggregated and carried more efficiently in larger "pipes". 8 Increasingly, the economics of fiber deployment make it desirable 9 further and further out in the network (closer and closer to the customer 10 11 premises). 12 It should be pointed out that many customers use modems that operate 13 14 at up to 53,000 bits per second over narrowband, voice grade facilities. 15 However, customer needs are expanding, and BellSouth is designing 16 today's network so that it will provide the basis for meeting customers' 17 growing needs. Today's customers are requesting services that 18 require higher bandwidth such as high-speed internet access. 19 Replacement of today's network will occur due to normal mortality and 20 technological obsolescence, that is, when the current technology is not 21 the most efficient means of providing voice and data services. 22 23 Q. IS THERE ANY MERIT TO THE CONCERN RAISED BY MR. MAJOROS ON PAGE 15 OF HIS TESTIMONY THAT LIVES USED 24 FOR EXTERNAL REPORTING PURPOSES ARE INAPPROPRIATE 25

1		FOR USE IN THESE STUDIES DUE TO THE "CONSERVATISM"
2		PRINCIPLE OF GAAP?
3		
4	A.	No. The "conservatism" principle of GAAP does not determine
5		BellSouth's lives. BellSouth's economic lives, used for intrastate and
6		external reporting purposes and in BellSouth's cost studies, are
7		determined by the approaches described in this testimony and detailed
8		in Exhibit GDC-2 to my direct testimony. These lives are used to
9		determine depreciation rates that appropriately allocate the cost of
10		BellSouth's assets over their estimated useful lives in a systematic and
11		rational manner.
12		
13		Arthur Andersen addressed the concern raised by Mr. Majoros about
14		GAAP conservatism in a position paper filed with the FCC, which is
15		attached to my testimony as Exhibit GDC-5. ("Supplement to July 15,
16		1998 Position Paper 'Accounting Simplification in the
17		Telecommunications Industry", prepared by Arthur Andersen LLP,
18		November 10, 1998.) They stated:
19		
20		"The implication here is that conservative accounting
21		principles would be the rule under GAAP, thus
22		leading to understatements of net income and
23		corresponding overstatements of costs and
24		associated rates charged to ratepayers.
25		

[This] interpretation of GAAP is misguided. The 1 purpose of GAAP is to guard against material 2 misstatements, including overstatements as well as 3 understatements, in the financial statements. 4 Financial statements prepared in accordance with 5 GAAP are intended to present fairly, in all material 6 respects, the financial position, results of operations 7 and cash flows of the company. This 'presents fairly' 8 concept covers both the understatement and 9 10 overstatement of financial results. Thus, both 11 shareholders and ratepayers are protected via the effective application of GAAP. If GAAP were purely 12 13 based on conservatism ... then the auditors' report 14 would state that the financial statements present 15 conservatively, not fairly, the company's financial 16 results. 17 18 [This view of GAAP] also ignores the reality of today's 19 economic environment.... All companies, including 20 the ILECs, face significant expectations by the 21 investment community to meet or exceed earnings 22 and earnings per share targets. To the extent that 23 earnings fall below analyst expectations, the 24 company's stock price and its ability to attract

additional capital suffers. [The] assertion that

25

1		conservative accounting would be applied in all cases
2		in order to produce excessive regulated rates is
3		ludicrous."
4		
5	Q.	ON PAGE 4 OF HER TESTIMONY, MS. BENTLEY ACCUSES THE
6		ILECS OF USING "NON-STANDARD ACCOUNTING METHODS"
7		WITH REGARD TO DEPRECIATION. HOW DO YOU RESPOND TO
8		HER STATEMENTS?
9		
10	A.	BellSouth has in no way used, or advocated using, "non-standard
11		accounting methods" with regard to depreciation. Rather, BellSouth
12		relies, as Ms. Bentley suggests as appropriate on page 5 of her
13		testimony, "standard accounting practices as embodied by the
14		Generally Accepted Accounting Principals (sic)".
15		
16	Q.	HOW DO YOU RESPOND TO MS. BENTLEY'S SUGGESTION ON
17		PAGE 6 THAT FUTURE TELECOMMUNICATIONS EQUIPMENT WILL
18		SIMPLY REQUIRE SOFTWARE CHANGES RATHER THAN
19		EQUIPMENT CHANGES, AND THEREFORE WILL NOT IMPACT THE
20		EQUIPMENT'S LIFE?
21		
22	A.	Clearly, the majority of telecommunications plant and equipment in
23		service (e.g., poles, cable, conduit, etc.) does not utilize software, and
24		therefore would not be impacted by software changes. BellSouth
25		assumes that Ms. Rentley is referring to switching equipment in her

comments. Switching equipment has been moving in the direction of being software-oriented since the advent of Stored Program Control switches (i.e., analog electronic switching). However, to suggest that only software updates and no equipment changes will be needed would be like saying that no new Personal Computer hardware will be needed in the future but only new versions of the software. As microprocessors and memory chips have become common place in telecommunications equipment, software has certainly played a larger role in managing the network and developing new services. However, this trend has not slowed the obsolescence of equipment but rather accelerated it. The use of software to increase the capabilities of telecommunications equipment has broadened the range of services available to customers and increased efficiencies. As the demand for new and improved services has increased, it has driven the need for more memory and faster processors. Changes to peripheral equipment have also been necessary to accommodate new capabilities.

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The use of software to develop and implement services will increase in the future. However, this trend will drive continued, if not greater, obsolescence of telecommunications equipment.

21

## 22 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

23

Although Mr. Majoros, Mr. Barta and Ms. Bentley offer absolutely no analysis of their own for determining appropriate economic lives for use

1		in BellSouth's cost studies, they argue that BellSouth's lives are wrong.
2		The lives provided in my direct testimony in this proceeding in Exhibit
3		GDC-1 were developed by performing detailed analyses of each asset
4		account. These lives are comparable to lives used by other companies
5		providing telecommunications services in Florida. They are
6		appropriate for use in a forward-looking cost study, as opposed to lives
7		established in the past.
8		
9	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
10		
11	A.	Yes, it does.
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BY MS. WHITE:

Q Mr. Cunningham, do you have a summary of your testimony?

- A Yes, I do.
- Q Could you please give that?
- A Yes.

Good morning. My name is Dave Cunningham, and I am a director in BellSouth's finance organization. I direct the group which has responsibility for determining the appropriate economic lives for the company's various asset categories. As part of my responsibilities I provide the economic lives for each asset account used in BellSouth's cost studies. These lives are set out in my Exhibit GDC-1.

The purpose of my direct and rebuttal testimonies is to demonstrate the appropriateness of the economic depreciation lives developed by BellSouth's depreciation organization and provided for use in BellSouth's cost studies. And to respond to the testimonies of Mr. Majoros on behalf of AT&T and MCI, Mr. Barta on behalf of FCTA, and Ms. Bentley on behalf of Supra regarding the economic lives used in BellSouth's cost studies.

BellSouth's depreciation study attached to my direct testimony provides detailed analysis of the various

asset accounts. It provides explanations of data, methodology, and analysis that support the asset lives that are used in BellSouth's cost studies. Neither Mr. Majoros, Mr. Barta, or Ms. Bentley present any analysis of their own as to the appropriate asset lives.

Unlike BellSouth's detailed depreciation study mentioned earlier, they merely argue that the appropriate lives to be used in BellSouth's cost studies are in general the lives last prescribed by the Federal Communications Commission.

The last time the Federal Communications

Commission, or the FCC, prescribed depreciation lives for BellSouth in Florida was in 1995 for interstate depreciation rates. The company's position is that the lives prescribed in '95 by the FCC are much too long, particularly for the technology sensitive accounts. They are based on the old regulatory paradigm, in which plant lives were artificially lengthened beyond their true economic lives so that the investment in the plant would be recovered in smaller year-to-year increments over longer periods of time.

The assumptions under this paradigm was always that BellSouth would be entitled to and will recover all of its this investment, but over a longer period of time, thus reducing the amount the customer paid in the

short-term. In today's competitive environment, however, the marketplace is not likely to allow BellSouth to recover its new investments based on lives that are inappropriately long.

The rapid changes in technology which BellSouth must embrace in order to stay competitive, shorten asset lives significantly beyond what the FCC has prescribed. In summary, BellSouth has provided detailed analysis in its depreciation study to support the economic lives that it uses. These lives are comparable to lives used by other companies providing telecommunications services in Florida. They are appropriate for use in BellSouth's cost studies. Thank you.

MS. WHITE: Mr. Cunningham is available for cross-examination.

MS. CASWELL: No questions.

CHAIRMAN DEASON: Mr. Fons.

MR. FONS: No questions.

CHAIRMAN DEASON: I'm just going to go down from left to right. Mr. Gross.

## CROSS EXAMINATION

## BY MR. GROSS:

Q Mr. Cunningham, your position is that the FCC lives are outdated and do not reflect technological obsolescence and competitive conditions, is that correct?

Q Okay. Well, I have a copy and I will quote, and I will be happy to show it to you before you answer. But in two places, one on Page 5 in Paragraph 10, the FCC indicates that we determined whether there were technological trends or changing carrier plans that might not be fully reflected in some of the LECs' prescribed factors. Paragraph 12 on Page 6, the FCC stated, "We believe that the ranges adopted in this order and in the second report and order provide a reasonable degree of confidence that the basic factors falling within their bounds will produce depreciation rates accurately reflecting plant retirements, company plans, and technological trends."

And I would like to ask you how you reconcile your position with those FCC findings? And if you would like, I will show you the order itself.

MS. WHITE: Yes. I would like the witness to be able to read the context in which the statements appear.

A Okay. First of all, I will have to correct my statement earlier that I asked you and you responded positively that this was the order that prescribed depreciation rates for the company. This is not the order that did that. I will have to correct my statement. This is an order that basically was setting out a range of depreciation lives in 1995 that the FCC would follow. It

was an update to an earlier discussion -- an earlier order that the FCC set out a range of lives for a group of accounts.

And this is the order that actually sets for the remaining twelve that they did not set a range for in the original order. And it is my understanding that these -- the lives that were originally set for these ranges were based on doing a standard deviation around the lives that they had already prescribed back in the '90/'92 time frame, and that that is the analysis that they had done based on their work in that area.

So that is what I see when I read this is that they -- is that, again, back to what I believe, is that this is very outdated, almost ten years old, a lot of the work that the FCC did to determine these particular ranges of lives. They allow the companies then to use these range of lives if they so deem necessary.

It is interesting, in 1995, the same year this was ordered, the FCC prescribed lives for BellSouth that were even shorter, in some accounts, than are in these ranges. But this is still the set of ranges they allow you to use if you want to update any of your depreciation factors. They haven't done anything with it based on the way the world has changed since then.

Q Mr. Cunningham, in your opinion, substitution

analysis has accurately tracked the introduction of fiber technology in the network, is that correct? 2 Are you reading from my testimony somewhere, I'm 3 Α 4 sorry? Well, I'm asking you your opinion. I can point 5 out that I think that statement is in your testimony. 6 Well, let me say what I believe, and that is 7 Α that we use substitution analysis as part of our analysis 8 in determining the appropriate economic life for our fiber 9 cable accounts. 10 Now, in your testimony you have concluded that 11 Q fiber has reached 99 percent of circuits in service in 12 interoffice facilities, is that a fair statement? 13 Are you reading from my testimony again 14 15 somewhere? 16 Well, I am referring to points that you have 0 17 made in your testimony. But as a matter of fact, you did 18 make a statement like that in your testimony. 19 Would you repeat the question, please. 20 Yes. You have concluded that fiber has reached 0 21 99 percent of circuits in service in interoffice facilities. 22 23 Α That's correct. I thought you said 95 percent a 24 moment ago. That's why I was questioning you. 25 Is it fair to say that upon deployment and Q

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activation of the fiber facilities the embedded copper plant has been retired?

- A No, that is not what that means at all.
- Q So is it your testimony today then that upon deployment and activation of the fiber facilities the embedded copper plant has not been retired?
  - A No, I didn't say either one.
  - Q Well, could you explain.

A Well, what we are talking about here is how fiber has displaced the copper, okay. That is that 99 percent of the circuits that are being used in interoffice are using fiber facilities. It doesn't say that necessarily all of the copper has been retired. There is a -- to try to help explain that, is the retirement unit for a copper cable is a length of cable, it is not the individual pairs of copper that are within the cable.

So you may have one pair of copper being used within a 100 pair cable, for example, and you can't retire that cable until all of the circuits have been cut off, all 100 of them, even though maybe only one may still be working. Therefore, the displacement has been 99 percent of that copper cable, but it doesn't necessarily relate to the actual retirement of the cable until that last circuit is transferred over to the fiber. Then using the accounting guidelines, you are allowed to then retire from

the books the whole copper cable.

Q But isn't it a fact, though, that as the displacement occurs that there is an increase in retirement to some degree?

A There can be, yes. From time to time; it doesn't follow a certain pattern, but yes.

Q But has that, in fact, happened with the 99 percent deployment?

A Well, we don't track retirements by interoffice.

I'm sure it has happened, but I don't have any proof to

show you because we keep our accounts by aerial,

underground, and buried cable, not by interoffice feeder

and distribution circuits.

Q Now, you have contended in your testimony that there are two situations in which a major technology displacement is occurring, digital is replacing analog and fiber is replacing copper. Is that your testimony?

A Those are some of the things that are happening, yes.

Q Now, based on this contention you have concluded that there will be an avalanche of retirements. Could you explain that?

A Yes. Eventually you will expect that as these transfers from one old technology to new technology take place eventually there will be a point where there will be

a great, great amount of retirement activity. 1 Now, have you ever heard BellSouth touting the 2 capabilities of its state of the art digital network? 3 I'm sorry, I can't respond to that. I don't Α 4 know who --5 Well, has BellSouth deployed a state of the art 6 7 digital network? We are definitely deploying one, yes. 8 Α Okay. And isn't it true that there are few, if 9 0 any, analog switches remaining in Florida for BellSouth? 10 There are relatively few compared to the total 11 12 number of switches. 13 Now, regarding the analog circuit equipment Q still in use, isn't it doubtful that this equipment will 14 15 suddenly be rendered obsolete since it is not dedicated to 16 any particular customer? 17 Α No, that is not true. 18 So is it your testimony, then, that it will be 19 suddenly rendered obsolete by the deployment of digital? 20 Α Not suddenly. I mean, it has been happening for 21 years and it continues to happen that our network is 22 becoming more and more digital. And as it becomes more 23 and more digital you can no longer use a lot of the analog plant. 24

But you have just testified that digital has

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substantially displaced analog, so how can there be an avalanche of retirements of analog?

A I'm not sure that was my testimony, actually. I don't -- can you rephrase your question. I don't really understand your question.

Q Well, earlier you had testified as to your conclusion that there will be an avalanche of retirements.

Now --

MS. WHITE: I'm going to object from the standpoint that I don't think that is what Mr. Cunningham testified. I think that was in a question that Mr. Gross asked, but I don't think that was ever anything that was acknowledged by Mr. Cunningham.

MR. GROSS: But I think he acknowledged that today.

## BY MR. GROSS:

Q The question was based on your contention about the displacement of analog technology and fiber replacing copper, I asked you based on this contention you have concluded that there will be an avalanche of retirements. And if I recall the answer was yes.

A I said eventually there will be an avalanche of retirements. And there are retirements in some cases now.

Q Okay. And my question now is based on that earlier testimony, that if there are few, if any, analog

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switches left, how can there be an avalanche of retirements for analog switches?

The avalanche is already taking place for the Α analog switches. That wasn't your question before, but the avalanche is already taking place for the analog switches. There are very few left. We are in the very last years. We expect all analog switches to be out of our network by 2004. So it will be an avalanche if you are looking at what is left in the -- what is remaining in the network. They will all be gone in the next three years. So to me, I would call that an avalanche of what is remaining. But the major avalanche of the total account over the years has really already happened.

Based on your observation that fiber facilities have completely penetrated interoffice facilities, isn't it also true that there should be no threat of an avalanche of retirements that will come soon for fiber facilities? Excuse me, for copper, retirement of copper for interoffice facilities?

Well, again, a lot of the retirements in the interoffice for metallic has already happened, and there will continue to be. Any remainder should be complete, you know, relatively soon. So a lot of the displacement, which is the way we analyze the economic life of this account, the displacement is 99 percent done. There still

may be some retirements left. And when you are talking about fiber cable in general or metallic cable in general, you must understand that interoffice is a very, very small percent of the total cable.

Q Now, if BellSouth truly believes that most of its existing technology is soon to be retired, then its cost proxy models should reflect the new digital technology that is presumed to take its place, isn't that a fair statement?

A Would you repeat it. I don't believe it is; but would you repeat it one more time for me, please?

Q Okay. If BellSouth truly believes that most of its existing technology is soon to be retired, then shouldn't its cost proxy models reflect the new digital technology that is presumed to take its place?

A First of all, I have to disagree with your assumption. A lot of the investment that we have, we don't expect to retire soon. It will be over many, many years to come. And second of all, I'm not an expert in the cost model, so I can't respond to the second part of your question.

Q Mr. Cunningham, do you have a copy of your prefiled testimony in front of you?

A I do.

Q I would like to refer you to Page 11, Line 20.

Actually starting with Line 19, where you say, "Huge retirements of these old technologies are expected in bulk at the end of the technologies' lifespan. And depreciation accruals over the years have not been high enough due to inappropriately long FCC prescribed lives for copper and analog-related assets to petition the depreciation reserve for the avalanche of retirements that are still to come."

Now, if I understood your last answer that most of BellSouth's existing technology will not soon be retired, is that correct?

A That's not what I said. I said that -- first of all, this statement does not talk about -- well, let me just say it this way. What I said is that we have had retirements and we will continue to have retirements in the existing technology over many years. That doesn't mean that there won't be tremendous displacements in existing technologies.

You were referring to analog switching at one time. Of course, they are almost completely gone, so we have had huge retirements in that area. We have had huge retirements in digital switching. And we have had some retirements in metallic cable, but it has a longer life and you would expect more of those retirements to happen later.

1	Q Now, you have testified that you are not an
2	expert on cost proxy models?
3	A That's correct.
4	MR. GROSS: I have no further questions. Thank
5	you.
6	THE WITNESS: You're welcome.
7	CROSS EXAMINATION
8	BY MR. LAMOUREUX:
9	Q Good morning, Mr. Cunningham. My name is Jim
٥١	Lamoureux, I represent AT&T.
L1	A Good morning, Mr. Lamoureux.
.2	Q Would you agree that the overall purpose of this
L3	proceeding is to establish prices for certain unbundled
L4	network elements?
L5	A That is my understanding.
L6	Q And depreciation enters into the picture of that
L7	because it is one component of the overall cost of those
8.	unbundled network elements, is that right?
L9	A That is my understanding.
20	Q Well, that is why you were asked to prepare a
21	depreciation study, is that correct?
22	A Well, I was asked to provide the economic lives
23	to the cost organization for them to put into their cost
24	model.
) =	O Do you agree that depreciation is a significant

cost associated with telephone networks?

A Yes.

Q And do you agree that depreciation is a significant portion of the cost associated with cost models, such as those we use for unbundled network elements?

A I would have to say I would guess it probably is. I really don't know what percentage it is. I really don't know what the outputs of the cost model are.

Q Do you agree that the depreciation lives that are used in UNE cost models should be forward-looking?

A Yes.

Q And by forward-looking, do you agree that they should adhere to the TELRIC principles set forth by the FCC for calculating unbundled network element prices?

A What I would say is that they should be -- what I was asked to provide to the cost organization are forward-looking lives. If you put in a piece of plant today, how long would it live. And it is my understanding -- that is an economic life in my terms. And it is my understanding that the FCC has said that you should use economic lives.

Q Have you reviewed the TELRIC principles established by the FCC for calculating unbundled network element prices?

A I probably have read them once upon a time, but I don't recall them actually.

Q Can you draw a conclusion as to whether the depreciation lives you have proposed meet the TELRIC principles established by the FCC?

A That would probably be a better question to the people that actually prepare the cost model. I can tell you what I have given you are the economic lives. And it is my understanding that that is the appropriate thing for a cost model.

- Q When you say "economic lives," what do you mean?
- A As I just described. I will say it again. If you put a piece of plant in today, how long would it live.
- Q Well, let me ask you this, do you believe it is inappropriate to use historical data in establishing depreciation lives?
  - A No.
  - Q Why not?
- A Well, because there are some accounts that it is -- you know, I think it is appropriate because there are some accounts that you would expect that the future will be similar to the past. For example, poles. You wouldn't expect that a pole would live much differently tomorrow as it did yesterday because it is really not affected by technology.

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Could I ask you to turn to Page 7 of your

asset, a new similar asset would live in the future in a new competitive environment that is growing competitively and where technology is driving so quickly.

Q And how do you make the determination whether historical data has been used appropriately or inappropriately?

A Well, when I look at remarks that have been made by the FCC in their analysis that Mr. Majoros refers to, those are analysis of the past. I don't see any analysis that they have made concerning the future of the technology accounts.

Q Well, a couple of questions ago when I asked you about use of historical data you talked about it was okay to use historical data appropriately. And my question is how do you determine appropriate use of historical data versus inappropriate use of historical data?

A By understanding what is happening in the various accounts in your company. For example, I just gave an example that the understanding of what is happening in the pole account is different than the understanding of what is happening in the digital switching category. And so there are different things that affect it. Technology is effecting digital switching where it is not on poles. So it is the understanding of your various asset accounts that allow you to apply the

parameters appropriately.

Q So that it is sort of a you will know it when you see it type of analysis? In some accounts you will look at it and it is just inappropriate to use historical data, and in other accounts it may be appropriate?

A Well, I guess the best way I could respond to that is if you have read my study you will know that we use an approach -- I haven't seen anybody else's study, so it is hard for me to say what I would think about it, because we are the only people that I know of that have provided that kind of information in this docket.

Q Do you know whether the depreciation lives in your study are actually the lives that were used by BellSouth in its cost model in this proceeding?

A I would have to say yes to that. I didn't run the cost model, but looking at the deposition of Ms. Caldwell, it is my understanding she says that she did use these lives in her cost model.

Q Now, your depreciation study originally was prepared to determine the appropriate depreciation rates to be used for booking depreciation for financial purposes for BellSouth, is that correct?

A No, it's not complete. That is one of the purposes for doing the depreciation study. The other purpose is to be able to provide the documentation in a

docket like this or any other regulatory docket, and to appropriately determine the depreciation parameters used in our state on a PSC basis as well as for financial reporting and for regulatory dockets like the one we are in today.

- Q Would BellSouth have prepared its depreciation study if this docket didn't exist?
  - A Yes, we prepare one every year.
- Q And the primary purpose for that is for use in financial reporting purposes, is that correct?
- A Its primary purpose is, as I stated before, it is three-fold; it is for financial reporting, it is for Public Service Commission and FCC -- for Public Service Commission reporting, and also for regulatory dockets as we are in today.
- Q How often do you report those depreciation lives to the PSC for regulatory purposes?

A I don't know what the regular -- I'm not involved in that. I mean, what we do is provide the appropriate finance organization in BellSouth the appropriate depreciation rates that are used to apply to our investment every month to determine the depreciation accruals. And those flow to the Public Service Commission set of books, so to speak. And I'm not sure how that is reported to the Commission.

Q The lives that are in your study, would you agree with me that these are region-wide BellSouth lives and not Florida-specific lives?

A The economic lives are appropriate for Florida as well as the other states. A lot of the data that we used in our calculations are actually based on company data to provide a broader universe of data in making our calculations.

Q Do you use the same lives for every state in your region?

A Yes, we use the same economic lives for every state, but not the -- yes, that's right.

Q So it is correct that the lives are not specific to just Florida, is that correct?

A The economic lives, that is correct.

Q And they are applicable to the BellSouth region, not any particular state?

A Yes. The study actually shows some of the economic lives based on Florida, but we are using the -- we think it is appropriate to use a company-based economic life.

Q And what you mean by that is the study, the study while it may show some specific Florida lives, those are not the depreciation lives that you have recommended for use in this proceeding?

A That's right. Because, of course, for the company Florida is 25 percent of the company data anyway. And so it is heavily weighted in our analysis for the company.

Q The economic lives that result from your study, those are projected lives, is that correct?

A Well, there is a term of art in the depreciation field called projection life. And that is similar -- what we are calling here is similar to, and the same as an economic life. That is, if you put a piece of plant in today, how long would it live.

Q And just to distinguish, the lives that you are recommending, they are similar to projection lives, they are not remaining lives, is that correct?

A That is correct.

Q And is that because remaining lives would be inappropriate for use in a forward-looking cost study?

A I am really not an expert in the cost study. I provided the cost study folks the kind of life they asked for, so I really can't respond to that.

Q Do you know why projection lives would be considered appropriate but remaining lives would not be?

A And this would be my opinion only, not what, of course, the -- I am not an expert in the cost study, again, but if somebody were to ask me for a life that

represents forward-looking, and if you put it in today how long it would last, then to me that is an economic life in my vernacular, and not an average remaining life.

Q So in your vernacular and in your opinion an average remaining life would not be a forward-looking economic life, is that correct?

A You may be able to calculate an average remaining life on an economic life for a forward-looking plan, but that is to my understanding not what our cost study does, it uses an economic life in the model.

Q Do remaining lives relate specifically to embedded plant?

A Again, it is a term of art. You could say the remaining -- what is the remaining life of a piece of plant that was placed today. It just so happens it would be the same answer as the economic life, but you could call it an average remaining life, you could call it a service life, you could call it whatever life you wanted, but it would be, in terms of this docket, an economic life. But the remaining lives, just to be clear, that are in my depreciation study, the remaining lives there are not to be compared with the economic lives.

Q And why is that?

A Because they are based on -- they are more appropriate for determining the depreciation rate that we

are using each month.

Q Let's talk about the FCC lives for a little bit.

If I understood you correctly in response to cross you said that you don't know how the FCC adopted its 1995 lives, is that correct?

A Would you repeat your question?

Q Sure. If I understood your response to an earlier cross-examination question, I thought I heard you say that you don't know how the FCC adopted -- how the FCC went about adopting its 1995 depreciation lives.

A What I think I responded, after I understood what I was being asked about, after I read it, which was how you determine the -- how the FCC docket, how they laid out what the range of economic lives would be that a company could use if they chose not to file a study on their own, that that range of lives was based on taking a standard deviation around what they had prescribed in the past.

Q All right. And that is what I wanted to ask you about. Those lives that the FCC had prescribed before they came up with the range, are you aware of how the FCC came up with those lives that it prescribed?

A That is what -- oh, how they came up with the ones that were prescribed?

Q Yes.

A It was through a negotiation process with the various companies across the country.

Q And you are familiar with how those lives were arrived at, is that correct?

A I don't know what was in the chief negotiator's mind at the FCC and how they finally decided what they negotiated with the company on, I just know what the result was.

Q Okay. And I guess that is what I want to get at. When you testified that the FCC lives are too long, what you mean by that is that they are longer than the lives that you believe are appropriate as a result of your depreciation study?

A Yes, sir.

Q It's not that you have identified some flaw in the analysis that the FCC used to come up with its life, it is just an outcome comparison between their lives and your lives, is that correct?

A Again, their range of lives are just based on historically what they projected in the past, and I think it is appropriate to look forward in a forward-looking cost study to determine the economic lives.

Q Do you agree with me, Mr. Cunningham, that in 1980 the FCC departed from its previous practice of relying largely on historical experience and began to rely

more on analysis of company plans, technological development and other future-oriented studies?

A I have seen that written. That was before my time. I don't really know what they did back in '80, but I have seen that written.

Q And you agree that the FCC has said that is what it did?

A I know they have said that.

Q Do you have any basis to disagree with the FCC's statement that that was its transition in its analysis?

A Not back in 1980. All I can talk about is today. And it doesn't look like to me they have gone far enough.

Q It is your understanding that the FCC maintains that it does rely on forward-looking analysis to come up with its lives and its ranges for lives, would you agree with that?

A They have never presented to me any study that looks forward, so I don't know what they do. I do know that everything they have ever presented to me talks about retirements of the past. And so I have read those words, but I'm not familiar with any forward-looking look or independent analysis they have done. Apparently, according to those words, they may have done some. But I have never been privy to it.

1	Q Are you familiar with the biennial review of
2	depreciation that occurred in 1998 at the FCC?
3	A Yes.
4	Q And are you familiar with the order that the FCC
5	issued at the end of 1999 in connection with that?
6	A Yes.
7	Q I would like to hand you a copy of that, if I
8	may. When I made 15 copies that sounded like a lot,
9	but
10	MS. WHITE: Mr. Cunningham, do you have a copy
11	of this?
12	THE WITNESS: Yes, they just handed it to me.
13	Thank you.
14	CHAIRMAN DEASON: I'm sorry, the court reporter
15	needs a copy.
16	MR. LAMOUREUX: This order may have been on the
17	official notice list, I'm not sure. There is a lot of
18	documents listed on there.
19	CHAIRMAN DEASON: Staff will check that and it
20	may be on the list. You can proceed and staff will advise
21	us.
22	BY MR. LAMOUREUX:
23	Q Mr. Cunningham, do you recognize this as the
24	FCC's order in this 1998 biennial review proceeding?
25	A Vec

1	Q Have you read this order before?
2	A Yes, I have.
3	Q Could you turn to Paragraph 5 of that order,
4	which is on Page 3.
5	A Page 5?
6	Q Paragraph 5, Page 3.
7	A Oh, I'm sorry. Yes.
8	Q Would you agree with me that in that paragraph
9	the FCC specifically says that it changed its practice in
10	looking at depreciation to reflect a more forward-looking
11	approach?
12	A Yes. As I mentioned earlier, I knew they had
13	said that.
14	Q Now, I think you have said that the FCC lives
15	that were last prescribed for BellSouth, that was done in
16	1995, is that right?
17	A Yes, sir.
18	Q And that was as a result of a full triennial
19	review of BellSouth, is that right?
20	A Yes, I would characterize it probably as a
21	yes, it was. Yes.
22	Q Could you explain what a triennial review
23	entails?
24	A At one time the Commission required companies to
25	file a depreciation study every three years: therefore, it

was called a triennial review.

- Q And BellSouth did not seek a new review of its lives or its range of lives at the FCC in 1998, is that correct?
  - A That is correct.
- Q So BellSouth has not sought to have the FCC update those lives that were prescribed in 1995, is that correct?
- A There was no reason to with price cap regulation.
- Q When you say there was no reason to, what do you mean?
  - A Because we were under price cap regulation.
- Q BellSouth didn't feel it appropriate to have the FCC adopt lives more in line with the lives that you believe your depreciation study produces?
- A No, we didn't see that there would be a reason to go through that type of process when we already knew their position was to use the ranges that we have already talked about here this morning, and that is the range of lives that they were using across the country. So we just didn't see any reason to do that. We didn't expect there would be any positive outcome.
- Q Well, if BellSouth felt that the FCC lives were too long, BellSouth could have petitioned the FCC for a

represcription of its lives in 1998 or in any of the annual updates in between 1995 and 1998, couldn't they?

A No. They could have in '98, that part of your point is correct, but they could not have in an annual update. You are not allowed to change your life. You are not allowed to ask for the life you think is appropriate in an annual update unless it is within their range, which again, we think are too long.

Q But, in any event, BellSouth did not attempt in 1998 to argue before the FCC that its lives were too long and its lives should be shortened?

A No. Again, we didn't think it was appropriate with price cap regulation. And I might just mention the same opinion is held in the document you just provided me by one of the Commissioners at the FCC. His conclusion is -- this is Chairman Furchtgott-Roth -- is that in my opinion there is no valid reason for continuing to require the large incumbent local exchange carriers to comply with the Commission's burdensome and anachronistic depreciation regulations.

Q What you read there is just the dissenting opinion of one of the Commissioners, is that correct?

A Yes, it was just in the document you gave me, so I thought -- we kind of agreed with that is why we didn't do that.

Q Right. That, however, is not reflected in the FCC order itself, is it?

A Well, it is attached to the document you just gave me. Whether it legally it is part of the order, you have to help me with that. I don't really know.

Q Just document-wise it is in a dissent attached to the back of the order, it is not in the actual order itself?

MS. WHITE: Well, if the order is in the record, I'm sure that everybody can figure out where it is in the order.

## BY MR. LAMOUREUX:

Now, that order that came out, that essentially simplified ILEC depreciation filing requirements, would you agree with me on that? Let me ask that a different way. Would you agree with me that one of the things that that December 30th, 1999 order did, at least one of the things professed by the FCC in that order is a simplification of ILEC depreciation filings at the FCC?

A That is what it says, yes.

Q Okay. And in particular it simplified or it professes to simplify, if you will, those filings requirements providing that the ILECs select depreciation factors within the FCC's prescribed range?

A Yes, and that's why I was hesitating on your

original answer. I mean, it wouldn't simplify anything for me, because I don't agree with the ranges.

- Q Okay. Fair enough. Now, do you agree with me that in that order the FCC rejected specifically the argument made by BellSouth that the FCC should adopt shorter lives similar to some of the lives adopted by some of the states, including Florida?
  - A Are you reading from a particular place?
- Q Well, I'm not trying to quiz you. If you would turn to Paragraph 17 of the order.
  - A Yes.
- Q Would you agree with me there that the FCC specifically rejected the argument made by BellSouth that the FCC should adopt shorter lives allowed by some state commissions, including Florida?
- MS. WHITE: I am going to object from the standpoint that I don't see the name Florida mentioned in the sentence, or the paragraph, or the footnote.

  BY MR. LAMOUREUX:
- Q Let me ask a very simple question. Do you agree that the FCC rejected the argument made by BellSouth that the FCC should adopt the shorter lives allowed by some state commissions in BellSouth's serving territory?
- A Yes. They just stayed with their same position that they had had before with the exception of digital

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I will say they did reduce the life in this switching. docket. I believe it is to 12 years for digital switching, the low end of the range for digital switching. Besides that, there was no change.

Let me ask you also to also turn to Paragraph 49 of that order, if you would.

Α Okay..

Would you agree with me that the FCC also held that safeguards such as SEC requirements are not adequate substitutes for depreciation prescriptions because they are not designed to protect ratepayers, but to protect investor interests?

That is what it says. I don't agree with it, Α but that is what it says.

In short, as a result of that December 30th, 1999 order, the FCC refused to forebear from requiring ILECs to file depreciation ranges at the FCC, isn't that correct?

Yes, they did. They did say that the companies have an option; they can file a waiver if they wanted to, and following certain requirements then they would reconsider whether to forebear or not.

Basically, the FCC rejected arguments made by the ILECs that they should not have to file or they should not have to have depreciation lives prescribed by the FCC?

Α

Well, it is my understanding that the FCC thinks

that their range is appropriate no matter what anybody else thinks about it. No matter whether this Commission decides it is different, or some other Commission, or me, or anybody else. That is what they think.

Q But even in addressing this forbearance petition that was filed by the USTA, and in a subsequent follow-on waiver request by the ILECs, would you agree with me --

A I'm sorry, are you talking about this now?

Q Well, that, and in a subsequent waiver petition filed by several of the ILECs. Would you agree with me that the FCC acknowledged the value of the prescription ranges in the use of UNE and USF cost models even if it turns out that those ILECs are granted a waiver not to have to have their prescription ranges at the FCC?

A I would agree that their opinion is that they know better than anybody in the world what the life is for depreciation. I just happen to disagree with that.

Q In particular, they believe it is important to maintain those depreciation ranges for use in UNE and USF cost models?

A That is their position. I totally disagree with it, but that is their position.

- Q Could I ask you to turn to Paragraph 68?
- A Yes, sir.
- Q Now, in addition to the biennial review that was

addressed by the FCC, this order also addressed a petition by the USTA for forbearance from depreciation requirements at the FCC, is that correct?

A Yes, they actually combined the two efforts into one docket.

Q Okay. And if you look at Paragraph 68, do you agree with me there that one of the reasons the FCC refused to grant the USTA's request for forbearance was the FCC's concern that allowing ILECs to increase rates for interconnection and unbundled network elements by significantly increasing depreciation expense could adversely effect competition by raising input prices that competitors pay?

A That's what it says.

Q Let me have you look at one more paragraph, and that is Paragraph 70?

A Okay.

Q The bottom line. Would you agree with me, Mr. Cunningham, that in this order the FCC specifically rejected the argument that you have made that the FCC's depreciation rates are too low?

A I would agree that that is what the words say.

But, again, when you look at the kind of lives the rest of the telecommunications world is using, I don't see how they can come to that conclusion.

Q But that argument has been presented to the FCC and the FCC has rejected it, is that correct, that is that its lives are too low?

A The argument that our lives are too low has been presented to them, right. I don't really know that they have been able to see the lives that are being used by our competitors before.

## Q Now --

CHAIRMAN DEASON: Excuse me, how much more do you have for this witness?

MR. LAMOUREUX: A fair amount.

CHAIRMAN DEASON: A fair amount. Okay. We are going to take a fifteen-minute recess.

(Transcript continues in sequence in Volume 6.)

STATE OF FLORIDA) 1 CERTIFICATE OF REPORTER 2 COUNTY OF LEON 3 4 I, JANE FAUROT, RPR, Chief, FPSC Bureau of Reporting Official Commission Reporter, do hereby certify that the 5 Hearing in Docket No. 990649-TP was heard by the Florida Public Service Commission at the time and place herein stated. 6 It is further certified that I stenographically 7 reported the said proceedings; that the same has been transcribed under my direct supervision; and that this 8 transcript, consisting of 156 pages, Volume 5 constitutes a true transcription of my notes of said proceedings and the 9 insertion of the prescribed prefiled testimony of the witness(s). 10 I FURTHER CERTIFY that I am not a relative, employee, attorney 11 or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorneys or counsel connected 12 with the action, nor am I financially interested in the action. 13 DATED THIS 25TH DAY OF JULY, 2000. 14 15 16 FPSC Division of Records & Reporting Chief, Bureau of Reporting 17 (850) 413-6732 18 19 20 21 22 23 24 25