BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Resolution of
Petition(s) to establish
nondiscriminatory rates, terms,
and conditions for resale
involving local exchange
companies and alternative local
exchange companies pursuant to
Section 364.161, Florida
Statutes.

DOCKET NO. 950984-TP

FIRST DAY - MID-AFTERNOON SESSION

VOLUME 2

PAGES 199 through 383

PROCEEDINGS:

HEARING

BEFORE:

CHAIRMAN SUSAN F. CLARK

COMMISSIONER J. TERRY DEASON COMMISSIONER JULIA L. JOHNSON

COMMISSIONER JOE GARCIA

DATE:

Thursday, January 11, 1996

TIME:

Commenced at 9:00 a.m.

PLACE:

Betty Easley Conference Center

Room 148

4075 Esplanade Way Tallahassee, Florida

REPORTED BY:

LISA GIROD JONES, RPR, RMR

APPEARANCES:

(As heretofore noted.)

DOCUMENT NUMBER-DATE

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FPSC-RECORDS/REPORTING

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PROCEEDINGS 1 (Hearing reconvened at 2:45 p.m.) 2 (Transcript continues in sequence from 3 Volume 1). 4 CHAIRMAN CLARK: We'll call the hearing back 5 to order. Mr. Guedel. 6 MIKE GUEDEL 7 was called as a witness on behalf of AT&T Communications 8 of the Southern States, Inc., and having been duly sworn, testified as follows: 10 DIRECT EXAMINATION 11 BY MS. DUNSON: 12 Mr. Guedel, have you previously been sworn? 13 Yes, I have. Α 14 Would you please state your name and business 15 address for the record? 16 17 My name is Mike Guedel. My business address 18 is 1200 Peachtree Street, Northeast, Atlanta, Georgia 30309. 19 By whom are you employed and in what capacity? 20 Q 21 I'm employed by AT&T as a manager in the network services division. 22 23 Did you cause to be prepared 15 pages of Q 24 direct testimony which was prefiled on behalf of AT&T in Docket No. 950984-A and which was adopted in Docket No. 25

1	950984-	Bf
2	A	Yes, I did.
3	Q	Do you have any changes or corrections to this
4	testimo	ony?
5	A	No, I do not.
6	Q	If I asked you the same questions today, as
7	are cor	stained in your written testimony, would your
8	answers	s be the same?
9	A	Yes, they would.
10		MS. DUNSON: Madam Chairman, I move for
11	admissi	on of Mr. Guedel's direct testimony into the
12	record	
13		CHAIRMAN CLARK: The prefiled direct testimony
14	of Mike	e Guedel will be entered in the record as though
15	read, a	and it is dated November 27th, 1995.
16		WITNESS GUEDEL: Correct.
17		
18		
19		
20		
21		
22		
23		
24		
25		

1	Q.	WILL YOU PLEASE IDENTIFY YOURSELF?
2		
3	A.	My name is Mike Guedel and my business address
4		is AT&T, 1200 Peachtree Street, NE, Atlanta,
5		Georgia, 30309. I am employed by AT&T as
6		Manager-Network Services Division.
7		
8		
9	Q.	PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND
10		WORK EXPERIENCES.
11		
12	A.	I received a Master of Business Administration
13		with a concentration in Finance from Kennesaw
14		State College, Marietta, GA in 1994. I
15		received a Bachelor of Science degree in
16		Business Administration from Miami University,
17		Oxford, Ohio. Over the past years, I have
18		attended numerous industry schools and seminars
19		covering a variety of technical and regulatory
20		issues. I joined the Rates and Economics
21		Department of South Central Bell in February of
22		1980. My initial assignments included cost
23		analysis of terminal equipment and special
24		assembly offerings. In 1982, I began working
25		on access charge design and development. From

1		May of 1983 through September of 1983, as part
2		of an AT&T task force, I developed local
3		transport rates for the initial NECA interstate
4		filing. Post divestiture, I remained with
5		South Central Bell with specific responsibility
6		for cost analysis, design, and development
7		relating to switched access services and
8		intraLATA toll. In June of 1985, I joined
9		AT&T, assuming responsibility for cost analysis
10		of network services including access charge
11		impacts for the five South Central States
12		(Alabama, Kentucky, Louisiana, Mississippi, and
13		Tennessee).
14		
15		
16	Q.	PLEASE DESCRIBE YOUR CURRENT RESPONSIBILITIES.
17		
18	A.	My current responsibilities include directing
19		analytical support activities necessary for
20		intrastate communications service in Florida
21		and other southern states. This includes
22		detailed analysis of access charges and other
23		LEC filings to assess their impact on AT&T and
24		its customers. In this capacity, I have
25		represented AT&T through formal testimony

1		before the Florida Public Service Commission,
2		as well as regulatory commissions in the states
3		of South Carolina and Georgia.
4		
5		
6	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
7		
8	A.	The purpose of my testimony is threefold:
9		
LO		First, I will describe in a generic sense the
L1		concept of "unbundling" and its role in
12		interconnection arrangements,
L3		
L 4		Second, I will demonstrate why it is necessary
15		for the incumbent local exchange companies
16		(LECs) to unbundle their local networks.
۱7		
18		Third, I will recommend specific guidelines for
19		the technical arrangement and pricing of the
20		unbundled network elements.
21		
22		
23		
24		
25		

1	Q.	WHAT IS MEANT BY THE TERM INTERCONNECTION?
2		
3	A.	Interconnection refers to the act of linking
4		two networks together such that calls or
5		messages that originate on one of the networks
6		may transit or terminate on the other network.
7		Traditionally, in the switched environment,
8		interconnection has taken place on either the
9		line-side or the trunk-side of a local exchange
10		company's switch. Typical interconnection
11		arrangements have included switched access,
12		cellular interconnection, Enhanced Service
13		Provider(ESP) interconnection, and the
14		interconnection of end user Customer Provided
15		Equipment (CPE) through local service
16		arrangements.
17		
18		In the implementation of local competition,
19		these traditional types of interconnection will
20		still be useful, but may not be sufficient to
21		meet the all of the needs of all potential
22		interconnectors. A more open or "unbundled"
23		set of interconnection options and
24		interconnection architectures will need to be
25		made available.

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

1		Further, it must be noted that the list of BNFs
2		described above must not be considered static
3		or necessarily complete. Additional functional
4		elements may continue to be identified as
5		telecommunications technology evolves.
6		
7		
8	Q.	WHAT GENERAL CRITERIA CAN BE USED TO DEFINE OR
9		DETERMINE THE VIABILITY AND POTENTIAL
10		USEFULNESS OF BNFs?
11		
12	A.	Several criteria can be used in defining BNFs.
13		First, the unbundled element must represent a
14		discrete stand-alone logical component.
15		Second, the unbundled element must be
16		separately measurable and billable. Third, the
17		unbundled elements must be associated with
18		clearly identified interface standards.
19		
20		
21	Q.	WHY IS NETWORK UNBUNDLING ESSENTIAL TO THE
22		POTENTIAL DEVELOPMENT OF LOCAL COMPETITION?
23		
24	A.	The incumbent local exchange companies (like
25		BellSouth) currently hold a monopoly on the

provision of local exchange service within their respective operating territories. While competition has developed with respect to interexchange services and some enhanced telecommunications services over the past 15 years, final access to the customer (the last mile) effectively remains the sole province of the incumbent LECs. Under the protection of local franchise, the LECs have spent hundreds of millions of dollars over the years constructing networks to reach every potential local exchange customer.

It is unlikely that a potential competitor would be willing or able to invest the capital required to duplicate this existing LEC network simply on the chance that it might attract some local service customers. Further, even if the financial resources were available, significant time would be required to obtain necessary "right of way" authorizations and to construct the duplicative network. With the requirement of building a new network, competition, if it developed at all, would develop slowly, and it

1		Would likely benefit only a very limited number
2		of customers.
3		
4		Unbundling will allow potential competitors to
5		begin providing limited local service
6		arrangements without incurring all of the
7		expense of duplicating the LECs ubiquitous
8		local network. A new entrant, for example,
9		could begin providing service within a
10		geographic area by installing local switching
11		capability and purchasing unbundled loops (or
12		links) from BellSouth. This arrangement would
13		have several advantages over the option of
14		building all new facilities: 1) it would be far
15		less capital intensive, 2) it would allow
16		competition to develop much faster, and 3) it
17		would likely bring the benefits of competition
18		to a much larger group of customers.
19		
20		
21	Q.	WILL THE UNBUNDLING OF THE INCUMBENT LEC
22		FACILITIES/SERVICES ENSURE THAT COMPETITION
23		WILL DEVELOP IN THE LOCAL EXCHANGE?
24		

1	A.	No. At this time it is not clear as to whether
2		or not the local exchange market will ever
3		become effectively competitive. While,
4		unbundling, if appropriately implemented, will
5		tend to mitigate one of the major barrier to
6		the development of local competition, it will
7		not in and of itself guarantee that competition
8		will develop.
9		
10		
11	Q.	WHAT IS THE SCOPE OF THIS DOCKET WITH RESPECT
12		TO UNBUNDLING?
13		
14	A.	This docket has been established to consider
15		the unbundling of local loops (or links), and
16		the unbundling of local switching functions
17		including the associated cross connect
18		arrangements.
19		
20		
21	Q-	PLEASE DESCRIBE THE LOCAL LOOP FACILITY.
22		
23	Α.	The local loop functions to connect an end user
24		premises to the serving wire center of the
25		local exchange company. The traditional local

loop facility can be divided into three 1 functional sub-elements: 1) local distribution, 2 which connects the end user premises to the 3 feeder distribution BNF or a concentrator /multiplexor , 2) the concentrator multiplexor 5 which connects the distribution BNF to the 6 7 feeder facility, and 3) the feeder facility which completes the connection back to the 8 serving wire center or central office. 9 10 11 PLEASE DESCRIBE THE LOCAL SWITCHING FUNCTIONS? 12 Q. 13 14 A. The primary function of the local switch is to create on demand temporary paths connecting 15 local loops to other local loops or local loops 16 17 to interoffice transport facilities. Typical switching functions include: 1) recognizing 18 19 service requests, 2) obtaining call specific information, 3) data analysis, 4) route 20 selection, 5) call completion, 6) testing and 21 recording, etc. Further, the local switching 22 23 BNF must include access to unbundled Advanced Intelligent Network (AIN) triggers. 24 triggers will offer a new entrant certain call 25

1		control capability within the LEC switch
2		allowing it to customize its end user offering
3		without having to duplicate the LEC switch.
4		
5		
6	Q.	WOULD YOU DESCRIBE THE CROSS CONNECTION
7		FUNCTION?
8		
9	A.	Yes. The cross connect function completes the
LO		connection between an unbundled loop and a LEC
L1		switch, a new entrant switch, or a direct
L2		transport facility. This function effectively
L3		facilitates the unbundling process by allowing
L 4		a new entrant to purchases (and interconnect
L 5		with) the particular pieces (and only those
L6		pieces) of the LEC network that it requires.
L 7		
L8		
L9	Q.	WHAT ARE THE APPROPRIATE TECHNICAL ARRANGEMENT
20		FOR THE PROVISION OF SUCH UNBUNDLED ELEMENTS?
21		
22	A.	The overarching guideline should be to provide
23		the unbundled elements in such a manner as to
24		not inhibit the new entrant from providing the
25		same quality of service as the incumbent LEC.

That means that the technical arrangements used 1 to connect the unbundled element(s) to a new 2 entrant's network should be equal to those currently used to connect the element(s) within the LEC's own network. New entrants should have cooperatively engineered interconnection arrangements, equal service quality or performance parity, and the opportunity to 8 interconnect at the same points or virtually 9 the same points where practicable as the 10 incumbent LEC. 11

12

13

Q. WHAT ARE THE APPROPRIATE FINANCIAL ARRANGEMENTS FOR SUCH UNBUNDLED ELEMENTS?

16

The target price for the unbundled elements 17 Α. should be the Total Service Long Run 18 Incremental cost (TSLRIC) that the LEC incurs 19 in providing them. Pricing at the TSLRIC will 20 simultaneously ensure that the incumbent LEC 21 recovers all of the costs that it incurs in 22 providing the unbundled element(s) (including 23 cost of money), while it encourages the 24 potential development of competition by 25

1		offering the unbundled element(s) (at least
2		from a price perspective) in a competitively
3		neutral manner.
4		
5		
6	Q.	HOW WILL PRICING THE UNBUNDLED ELEMENTS AT
7		TSLRIC PROMOTE A COMPETITIVELY NEUTRAL
8		OFFERING?
9		
10		The actual cost that the LEC incurs in
11		providing the unbundled element, either to
12		itself or to a new entrant, is represented by
13		the TSLRIC. The actual cost that a new entrant
14		incurs is the price that it has to pay to the
15		LEC for the unbundled element.
16		
17		Therefore, if the incumbent LEC offers the
18		unbundled element(s) at TSLRIC, then both the
19		incumbent LEC and the new entrant will incur
20		the same cost with respect to that unbundled
21		element(s). With prices set at TSLRIC, neither
22		the LEC nor the new entrant is disadvantaged.
23		Thus the price is competitively neutral.
24		

1		On the other hand, if the LEC's price is set
2		above its TSLRIC, then the new entrant's costs
3		(i.e., the price charged by the LEC) becomes
4		higher than the LEC's cost. Because retail
5		(end user) prices (of both the LEC and the new
6		entrant) must cover all of the costs incurred
7		in providing the respective services, pricing
8		unbundled elements in excess of TSLRIC would
9		provide the LEC with a competitive advantage in
10		the retail market.
11		
12		
13	Q.	WOULD YOU SUMMARIZE YOUR TESTIMONY?
14		
15	A.	Yes. Attempts to promote the development of
16		local exchange competition serve the public
17		interest. Further, it must be recognized that
18		the general availability of facility based
19		
		competition, while desirable, is not likely to
20		competition, while desirable, is not likely to develop in the near term.
20 21		
21		develop in the near term.

1		Commission must order BellSouth to unbundle its
2		services into the underlying BNFs.
3		
4		The unbundled elements (BNFs) should be offered
5		to new entrants under the same basic
6		arrangements and with the same technical
7		capabilities as they are used by BellSouth in
8		the provision of its services. To further
9		encourage the potential development of
10		competition, the unbundled elements should be
11		priced at the TSLRIC incurred by BellSouth in
12		providing each element.
13		
14		
15	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
16		
17	A.	Yes.

Q (By Ms. Dunson) Mr. Guedel, did you prepare a summary of your testimony?

A Yes, I did.

Q Would you please give it for the record?

A Yes. In today's telecommunications environment, the incumbent local exchange companies possess an essential monopoly on the provision of local exchange service. Under the protection of local franchise, these companies have spent hundreds of millions of dollars over the years constructing networks to reach every potential local exchange customer. In this environment, it is unlikely that a potential competitor would be willing to invest the capital required to duplicate this network solely on the chance that it might attract some local customers. And even if the resources and the commitment were available, it would take years to accomplish.

Unbundling will allow potential competitors to begin providing limited local service arrangements without incurring all of the expense of duplicating the LEC network. This unbundling arrangement would have several advantages over the option of building all new facilities: One, it would be far less capital-intensive; two, it would allow competition to develop much faster; and three, it would likely bring the

benefits of competition to a much larger group of customers.

Therefore, incumbent local exchange companies must unbundle all local network elements at the logical and technically feasible points. In other words, we are asking that they unbundle their existing networks to permit the purchase of basic network functions essentially at those points in their networks where they effectively interconnect with themselves.

Within these guidelines, AT&T has identified

11 basic network functions, or BNFs, that we believe can

be practically and usefully unbundled today. They

include: Loop distribution, loop concentration

multiplexing, loop feeder, switching, operator systems,

dedicated transport links, tandem switching, signaling

links, signal transfer points and signal control

points. In conjunction with the defined scope of this

docket, however, my testimony addresses specifically

local loops and local switching.

Consistent with the above-described BNFs, the local loop must be unbundled from the rest of the local network and further unbundled into loop feeder, loop concentration multiplexing, and loop distribution, to provide complete utility.

The local switching element basically is a

1	standalone element. And let me clarify. In my
2	testimony I mentioned, in describing the local switch,
3	several aspects of the local switch or several functions
4	that are contained within the local switch. But AT&T is
5	not asking at this time that Southern Bell unbundle the
6	local switch or price those particular functions
7	separately. That concludes my summary.
8	MS. DUNSON: The witness is available for
9	cross-examination.
10	CHAIRMAN CLARK: Mr. Melson?
11	MR. MELSON: No questions.
12	CHAIRMAN CLARK: Mr. Self?
13	MR. SELF: No questions.
14	CHAIRMAN CLARK: Mr. Fincher?
15	MR. FINCHER: No questions.
16	CHAIRMAN CLARK: Mr. Falvey?
17	MR. FALVEY: No questions.
18	CHAIRMAN CLARK: Mr. Carver?
19	MR. CARVER: Yes, I have a few. Thank you.
20	CROSS-EXAMINATION
21	BY MR. CARVER:
22	Q Good afternoon, Mr. Guedel.
23	A Good afternoon.
24	Q Now, it's AT&T's position, is it not, that the
25	local loop should be unbundled into 11 components?

1	A No. The network should be unbundled into 11
2	components.
3	Q But there are 11 components? I've got that
4	part right?
5	A Yes.
6	Q Okay. Is AT&T certificated as an ALEC in
7	Florida?
8	A No.
9	Q Is AT&T authorized to provide dial tone for
10	local exchange service anywhere in the United States at
11	present?
12	A I'm not sure I know the answer to that. I do
13	believe we're providing service in Rochester, local
14	service in Rochester, New York, but I'm not aware of any
15	other place.
16	Q To come back to Florida, I assume that AT&T
17	has not made an unbundling request, per se, on
18	BellSouth?
19	A Not specifically to Florida, no.
20	Q Do you have any knowledge to suggest that
21	there's any telecommunications provider who is providing
22	or who is authorized to provide dial tone in Florida,
23	who has a particular need for all of these 11 elements?
24	A No, I'm not, not any specific provider. The
25	purpose of introducing these 11 elements is to provide a

framework of unbundling that we believe is necessary to
promote competition within the state. We believe that
these elements can be unbundled, technically and
feasibly, and that that opportunity or that option would
then be available to potential competitors.

Q Would it be fair to say that you believe that these 11 components should be offered by BellSouth, even if there's no demand for them?

- A I certainly believe the commitment to offer them should be there. I believe if they are offered they at least give opportunities for potential competitors to consider these unbundled elements in designing a network, and that gives more flexibility to designing a network. And further is the possibility that competition will develop in the local exchange. So, yes.
- Q I'm just not clear on the procedure. Are you saying that if a competitor requests one of these elements, then at that time BellSouth should undergo whatever administrative expenses are necessary to create that offering? Are you saying that it should be done, now, up front, so that it will be there if someone wants it in the future?
 - A I think it should be there now.
 - Q Are you familiar with the unbundling structure

that's set forth in Section 364.161 of the statute? I don't have that in front of me. 2 Okay. Are you familiar, generally, with what 3 Q 4 it states? I'm not sure I do. 5 Α Do you -- okay, that's fine. Now, is it 6 7 AT&T's position that these unbundled loop elements should be sold by BellSouth at their incremental cost? 8 The unbundled elements, the essential or Α Yes. monopoly unbundled elements, should be provided at 10 direct cost that BellSouth incurs in basically providing 11 the elements. 12 Would you take that same position as to any 13 Q services that BellSouth sells to its competitors on a 14 wholesale basis? And by wholesale I'm not talking about 15 16 price; I'm just talking about something that's sold to someone else for resale. 17 I don't know. That's too broad of a question, Α 18 I think, to answer. If you could narrow it. 19 No, I really can't. And if you can't answer 20 it at that level, then that's fine. Okay. 21 Let me ask you, does AT&T currently sell any 22 portions of its network to its competitors at

25 | A I don't know.

incremental cost?

24

1	MR. CARVER: Thank you. That's all that I
2	have.
3	CHAIRMAN CLARK: Ms. Wilson? Ms. Weiske?
4	MS. WEISKE: No questions.
5	CHAIRMAN CLARK: Staff?
6	CROSS-EXAMINATION
7	BY MS. CANZANO:
8	Q Good afternoon, Mr. Guedel. Do you have in
9	front of you a document that's the deposition transcript
10	of 12-20, 1995?
11	A Yes, I do.
12	Q To your knowledge, is this document true and
13	correct?
14	A Yes. Again, I believe there might be a couple
15	of typos, but it's substantively accurate.
16	MS. CANZANO: Commissioners, at this time I
17	would like this marked for identification.
18	CHAIRMAN CLARK: It will be marked as exhibit
19	9.
20	(Exhibit No. 9 marked for identification.)
21	MS. CANZANO: Thank you. Staff has no further
22	questions.
23	CHAIRMAN CLARK: Redirect?
24	MS. DUNSON: No redirect.
25	CHAIRMAN CLARK: Exhibits? Staff moves

1	MS. CANZANO: Staff moves Exhibit 9.
2	CHAIRMAN CLARK: Exhibit 9 is admitted without
3	objection.
4	(Exhibit No. 9 received into evidence.)
5	CHAIRMAN CLARK: Thank you, Mr. Guedel. You
6	are excused.
7	WITNESS GUEDEL: Thank you, Commissioner.
8	CHAIRMAN CLARK: Mr. Gillan.
9	JOSEPH GILLAN
10	was called as a witness on behalf of AT&T Communications
11	of the Southern States, Inc., and having been duly
12	sworn, testified as follows:
13	DIRECT EXAMINATION
14	BY MR. TYE:
15	Q Mr. Gillan, would you state your name and
16	business address for the record?
17	A Joseph Gillan, P. O. Box 541038, Orlando,
18	Florida 32854.
19	Q And Mr. Gillan, by whom are you employed?
20	A I'm self-employed.
21	Q And you're testifying on behalf of AT&T in
22	this proceeding?
23	A Yes, sir.
24	Q Now Mr. Gillan, did you prepare and cause to
25	be prefiled in this proceeding rebuttal testimony

	consisting of 24 pages of questions and answers:
2	A Yes, I did.
3	Q Do you have any changes, corrections or
4	additions you need to make to that testimony at this
5	time?
6	A Excuse me. Yes. On Page 7, Line 6, there's
7	reference to when the Commission's equal access exchange
8	areas were terminated that says 1990, and that should be
9	changed to January 1st, 1992, period, with the remainder
10	of that sentence stricken.
11	Q Is that the only correction you need to make
12	at this time, Mr. Gillan?
13	A Yes.
14	Q Now with that correction noted, if I asked yo
15	the questions contained in this testimony here today,
16	would you give me the same answers contained therein?
17	A Yes.
18	Q And Mr. Gillan, this testimony was filed in
19	the MFS portion of this docket; was it not?
20	A I believe so, yes.
21	Q And do you also adopt this testimony for the
22	MCI Metro portion of this docket?
23	A Yes.
24	MR. TYE: Madam Chairman, I would ask that
25	Mr. Gillan's prefiled testimony be copied into the

record as though given orally. CHAIRMAN CLARK: The prefiled rebuttal testimony of Mr. Gillan dated December 11th, 1995 will be inserted into the record as though read.

I. Introduction

1	Q.	Please state your name and business address.
2		
3	A.	My name is Joseph Gillan. My business address is P. O. Box 541038, Orlando,
4		Florida 32854.
5		
6	Q.	What is your occupation?
7		
8	A.	I am an economist with a consulting practice specializing in
9		telecommunications. My clients span a range of interests and have included
10		state public utility commissions, consumer advocate organizations, local
11		exchange carriers, competitive access providers, and long distance companies.
12		
13	Q.	Please briefly outline your educational background and related experience.
14		
15	A.	I am a graduate of the University of Wyoming where I received B.A. [1978] and
16		M.A. [1979] degrees in economics. My graduate program concentrated on the
17		economics of public utilities and regulated industries with course work
18		emphasizing price theory and statistics. During graduate school, I served an
19		internship with Mountain Bell in its Demand Analysis Group modeling the
20		residential demand for local service.

In 1980, I joined the Illinois Commerce Commission where I had responsibility over the policy content of Illinois Commission filings before the U.S. District Court and the Federal Communications Commission; provided staff testimony in various Commission proceedings concerning the divestiture agreement (e.g., the design of LATA boundaries for Illinois, and post-divestiture rate levels for AT&T and Illinois Bell), and the original access charge plan to replace both interLATA and intraLATA settlements procedures. While at the Commission, I served on the staff subcommittee for the NARUC Communications Committee and was appointed to the Research Advisory Council overseeing NARUC's research arm, the National Regulatory Research Institute.

In 1985 I left the Commission to join U.S. Switch, a venture firm organized to develop interexchange access networks in partnership with independent local telephone companies. At the end of 1986, I resigned my position of Vice President-Marketing to begin a consulting practice. Since then I have advised a variety of clients ranging from state public utility commissions, consumer advocates, interexchange carriers, competitive access providers, cable television companies and local exchange carriers. I currently serve on the Advisory Council for New Mexico State University's Center for Regulation.

Q. On whose behalf are your testifying in this proceeding?

1	A.	I am testifying on behalf of AT&T Communications of the Southern States, Inc
2		
3	Q.	What is the purpose of your rebuttal testimony?
4		
5	A.	The purpose of my rebuttal testimony is to respond to the testimony of Southern
6		Bell witnesses Robert Scheye and Dr. Andrew Banerjee, specifically the
7		suggestion in their testimony that anything less than the full availability of the
8		BellSouth network to its local competitors, at cost-based rates, will provide
9		Florida consumers with a choice of local service providers.
10		
11		This Commission (and others throughout the country) are overseeing a change
12		in the telecommunications industry as fundamental as the divestiture itself; the
13		emergence of local competition. The single most critical factor that will
14		determine the competitiveness of the industry is the pricing and availability of
15		the existing exchange network (in this case, BellSouth's) to other providers of
16		retail service.
17		
18		BellSouth's characterizations that its tariffs already contain the ingredients for
19		meaningful local competition are misleading, as is its implication that few
20		operational issues can be expected to arise. Quite the contrary, the
21		"unbundling" and "interconnection" requests before the Commission in the
22		instant proceeding while extremely important will together provide only a

1		modest opportunity for competitive entry, almost certainly limited to
2		metropolitan areas, and significant steps will still be necessary to make local
3		competition a reality for most Florida consumers, even after these proceedings
4		are concluded.
5		
6		This observation, however, does not diminish the significance of the issues
7		debated here. Quite the opposite, the decisions reached here will have
8		continuing importance as other necessary actions including the introduction
9		of wholesale configurations more complete than unbundled loops and ports
10		vigilant oversight of the wholesale pricing of BellSouth's network to its rivals
11		and close monitoring of areas of potential discrimination between BellSouth's
12		retail services and those of its rivals are addressed.
13		
14	Q.	Please summarize the basic conclusions of your rebuttal testimony.
15		
16	A.	The basic conclusions of my rebuttal testimony:
17		
18		* The BellSouth network resource will remain the primary facility
19		underlying most retail services for the foreseeable future.
20		
21		* Consumers will benefit most from the broadest array of services,
22		features and prices if the BellSouth network is opened to all retail providers on

equival	lent tern	ns, cond	itions an	d prices.

* Unbundled loops are one (although, not necessarily the most important) of the wholesale offerings that BellSouth must introduce in order for Florida consumers to enjoy a choice of local provider. Other offerings must include a bundled wholesale offering, call termination, and various features available solely from the local switch.

* The appropriate strategy for the pricing of BellSouth's wholesale services is to price based on the direct economic cost of the wholesale component (bundled or unbundled) being purchased.

Q. How is your rebuttal testimony organized?

A.

First, the testimony provides a general discussion concerning the dependence of BellSouth's rivals on its network, and describes the basic wholesale configurations that will be needed to support local competition. As expected, one of the principal configurations requires that *components* of the BellSouth network (in particular, the local loop) must be available separately from other network elements. The Commission can expect, however, requests for more *complete* wholesale configurations (effectively combining loops and network usage) so that customers beyond selected metropolitan locations may also

1		experience local competition. While my rebuttal testimony does not request
2		that the Commission introduce such arrangements in this proceeding,
3		BellSouth's position that it will not allow carriers to combine unbundled loops
4		and ports portends a future debate that the Commission must begin
5		understanding today.
6		
7		Second, the testimony addresses the appropriate strategy to use when pricing
8		wholesale services. BellSouth's pricing suggestion that it be permitted
9		unfettered discretion to increase its wholesale prices above cost in accordance
10		with an "inverse elasticity" rule is a form of competitive euthanasia that must
11		be firmly and flatly rejected.
12		
13		Finally, my testimony begins to identify areas of future action that the
14		Commission can anticipate as it further unravels BellSouth's franchise
15		monopoly and opens local markets to competition.
16		
L 7		II.Wholesale Configurations Underlying Local Competition
18		
19	Q.	Why is the BellSouth Network so important to the development of
20		competition?
21		
22	A.	There are two reasons why the BellSouth network is so important to the

development of competition. First, BellSouth's local exchange network — consisting of local loops to individual premises, local switching and an expansive interoffice network web — is simply too vast to replicate in the foreseeable future. This is particularly true in Florida, which affirmatively banned network deployment within so-called Equal Access Exchange Areas (EAEAs) until 1990, and prohibited afternative loop networks (bypase) wen beyond that data. Even if these regulatory policies had not been in place, however, it is important that the Commission recognize that sheer magnitude of the BellSouth network will mean that it will be the dominant (if not monopoly) network underlying virtually all services for quite some time.

Second, BellSouth inherits an indisputable advantage of a franchise monopolist — it already serves the entire marketplace. Communications, by its very nature, requires connections between BellSouth and its rivals so that all customers can reach one another, irrespective of which service provider they have chosen. As a result, even in instances where a competitor can economically replicate a *portion* of the BellSouth network, it must interconnect with and resell other elements, including call termination to the subscribers that remain with BellSouth.

Q. How complex is the BellSouth exchange network?

1	A.	The BellSouth exchange network is vast, connecting over 3 million residentia
2		housing units and essentially every commercial premise in its region. Although
3		BellSouth sometimes seeks to paint these statistics as a disadvantage implying
4		that its network is the result of a "governmental obligation" as opposed to its
5		own financial self-interest the ubiquity, reach and capacity of this network is
6		enormous.
7		
8		BellSouth's exchange network consists of nearly 5 million active local loops
9		(switched access lines), providing both local and long distance service, plus
10		additional loop capacity that today lies dormant. Measuring the local network
11		solely in terms of loops, however, understates its significance and misrepresents
12		the enormous investment that would be necessary for even a single provider -
13		much less, the multiple providers necessary for a fully robust competitive
14		environment to duplicate. BellSouth's local network also includes a switching
15		matrix of 144 local switches and 70 remote switches, all interconnected by a
16		web of interoffice fiber facilities.
17		
18		Because of the size and geographic reach of the BellSouth network, local
19		competition will proceed at a snail's pace unless this network can be used by
20		other carriers to provide local exchange and exchange access services.

1	Q.	Please identify the basic wholesale configurations that must be available for
2		Florida consumers to have a choice of their local service provider.
3		
4	A.	There are two basic wholesale configurations: (1) an unbundled loop model, and
5		(2) the wholesale network option. The main subject of these dockets concerns
6		the pricing of the unbundled loop, and its traffic-termination complement (i.e.,
7		interconnection service).
8		
9		The "unbundled loop" configuration combines a resold loop (i.e., the
10		transmission path that serves the individual subscriber) with a local switch
11		provided by the entrant. In addition, under this configuration, the reseller must
12		also obtain a "terminating service" to complete all of the local calls that
13		terminate with subscribers of BellSouth (which begins local competition with all
14		of the customers). This termination service is equivalent to the switched access
15		service used by interexchange carriers to complete toll calls.
16		
17		The "wholesale service" option is a more complete network platform that
18		includes the loop, port, and the seamless termination of non-presubscribed
19		traffic. By "seamless termination" I mean that non-presubscribed calls are
20		routed directly by the BellSouth network to the called party, while 1+ calls
21		would be delivered to the presubscribed carrier's network for completion. Under
22		the wholesale configuration, BellSouth's exchange network is used by the

entrant to provide underlying dial tone, call completion, and various optional capabilities that are associated with exchange switch: call waiting, call forwarding, etc. This wholesale local platform is analogous to the wholesale interexchange services that will be available to BellSouth, if (or when) it is permitted to offer long distance services.

The principal difference between the wholesale and unbundled-loop configurations is that the unbundled loop configuration requires a provider to establish a collocated interconnection with BellSouth at each central office where it intends to purchase loops, and install local switching capacity necessary to support the line. In other respects, the use of the BellSouth network to provide service (i.e., the use of the local loop and the termination of the call) is essentially the same.

Q. Are both of these configurations resale configurations?

A.

Yes. I am aware that sometimes an erroneous and artificial distinction is drawn between the unbundled-loop and wholesale service configurations with the inference that purchasers of unbundled-loops are "facilities-based" and users of the "wholesale" option are resellers. More accurately, both configurations are resale configurations. In fact, the unbundled-loop configuration is directly analogous to the classic resale arrangement used in long distance, where the

reseller used its own switch and relied upon the transmission networks of others to complete calls. The real distinction (discussed below) is that the wholesale configuration is useful *throughout* a region, while unbundled loops limit a carrier to particular end-offices.

Q. Are these alternative configurations mutually exclusive?

A.

No. It is most likely that some entrants will employ both configurations, serving some customers from their switch and others by reselling the wholesale service offered by the local exchange carrier. Furthermore, some entrants will rely on their own network to connect directly to customers (thereby avoiding resale of the incumbent's local loop altogether). Assuming cost-based and non-discriminatory pricing of the LEC's wholesale products, the market will decide which configuration is the most efficient in any given case. As described below, however, the unbundled-loop configuration suffers from a number of deficiencies that limit its usefulness outside particular metropolitan applications.

It is important to understand, however, that by exposing these deficiencies I am not suggesting that the process of network unbundling should be delayed or perceived with diminished significance. Unbundling the network is a vital element of a strategy enabling rational facilities deployment, permitting entrants to enter the market with limited networks, expanding their facilities as cost

1		conditions permit. It is not, however, sufficient to assure that retail competition
2		will become available broadly to all consumers.
3		
4	Q.	Why will the unbundled-loop option prove insufficient to promote local
5		competition?
6		
7	A.	The unbundled-loop configuration is effective to serve customers in a specific
8		geographic region (the customers served by a particular central office). In this
9		sense, it is most useful to a carrier with a narrow geographic focus, willing to
10		slowly develop its customer base by concentrating on serving selected
11		locations. It does not appear that it can support broad competition throughout
12		an entire area, much less an entire state, certainly not quickly.
13		
14		The deficiencies of the unbundled-loop configuration are three-fold:
15		
16		* The unbundled-loop configuration is viable only after a collocated
17		interoffice network exists.
18		
19		* The unbundled-loop configuration is not supported by the
20		administrative and operational systems necessary to allow large numbers of
21		subscribers to change local service providers and is thus incapable of supporting
22		an environment of one-stop shopping and BellSouth entry to the long distance

1	market

* The unbundled-loop configuration demands extensive investment in local switching and interoffice investment -- investment that will require time to accomplish even where it is cost-effective.

Q. What is the practical limit to the usefulness of the unbundled-loop configuration?

A.

The unbundled-loop configuration effectively requires that a provider establish a collocated presence at BellSouth's central office to provide local exchange service. In Florida, BellSouth has more than 140 central offices; as of June 12, 1995, however, collocated networks had been established at only 18. While this number may increase, the fact of the matter is that unbundled loops will not provide a useful option to serve most Florida consumers for quite some time. While an entrant uninterested in broadly serving the market may find this limitation acceptable, interexchange carriers typically already have customers throughout the region. And, as the market moves towards full service competition — with carriers offering packages of local and long distance service to remain competitive — interexchange carriers must be prepared to respond to all of their customers, not just those conveniently served by selected end offices.

one could expect significant shifts in market share between existing providers.

Second, particularly if BellSouth were permitted to offer long distance services,

Customers would be changing long distance carriers to consolidate with their local service, and there would need to be a comparable opportunity to consolidate local service with long distance. The unbundled-loop configuration, however, requires a physical change in the network -- i.e., the actual loop to the customer must be reconfigured from BellSouth's local switch to cross-connect to a competitor. Physical circuit reconfigurations are far more difficult than the software-controlled process currently used to effect a change in a customer's long distance carrier (the PIC-change process). A fair transition to a full service environment would require systems that can accommodate both

types of customer choices with comparable speed and ease.

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Finally, the unbundled-loop configuration requires that BellSouth's interoffice and local switching network be duplicated in order to provide broad coverage. As noted above, this network is defined by over 200 end office and remote switches, interconnected by an extensive interoffice network web carrying local and access traffic to their respective destinations. Requiring competitors to replicate this network as a predicate to offering local exchange service throughout the region is only slightly less a barrier to entry than expecting alternative networks to each and every subscriber premise.

1	Q.	Does it make sense to require competitors to duplicate BellSouth's
2		interoffice network to offer service?
3		
4	A.	No. Requiring the duplication of the interoffice network (and local switching
5		matrix) as a predicate to local competition is both wasteful and problematic. I
6		is wasteful because it would impose an unnecessary barrier to competition
7		forcing entrants to needlessly incur significant investment costs. The more
8		economically rational approach would be to correctly price BellSouth's full
9		network thereby encouraging investment where it is cost effective, but not
10		imposing an unnecessary investment threshold as a litmus-test for market
11		participation.
12		
13		It is problematic because its final result a competitor's network defined by
14		BellSouth's central offices means that the architectural decisions of the
1 5		incumbent decide the basic architecture and network design of its rivals. If this
16		approach is pursued, each and every subsequent design decision by BellSouth
17		to introduce, consolidate, or discontinue an end office would have serious
18		repercussions on the costs and networks of its rivals.
19		
20		The point is that the BellSouth network is likely to remain the sole network
21		resource to most Florida consumers for the foreseeable future. Further, the
22		pricing and availability of this resource either in its unbundled-loop or

wholesale configurations is critical to the development of local competition
Finally, the process to open the local market to competition is complex, and will
require far more than the unbundling at issue here.

Q. Please contrast your perspective on local competition with BellSouth's proposal to offer loops and ports to competitors.

A. BellSouth's proposal for wholesale offerings to support local competition addresses none of the concerns identified above. BellSouth's "unbundled loop" (a voice grade private line) is neither priced nor provisioned as a local loop. Even more disturbing, however, is the structure of BellSouth's proposal to provide "wholesale" dial tone.

BellSouth (Scheye, page 5) intends to only offer usage-rated ports at retail STS prices and has announced that it will refuse to connect wholesale loops to wholesale ports (Scheye, page 4) so that carriers may fashion full-service platforms. In one sense, BellSouth is correct when it notes that it would be far easier to fashion a wholesale service (as I have described above) that includes the basic network elements of local exchange and exchange access service, than it would be to force carriers to recombine unbundled elements (Scheye, page 13). But, this rationale supports the *introduction* of a wholesale platform, not the adoption of a restriction that prohibits others from achieving the same result.

1	Q.	What would be the effect of the Commission sanctioning BellSouth's
2		wholesale approach?
3		
4	A.	The BellSouth approach is deliberately structured to stop local competition in its
5		tracks by effectively foreclosing other carriers from offering services using the
6		BellSouth network. Given the absolute dominance of this network, such ar
7		outcome is tantamount to foreclosing local competition, effectively denying
8		Florida consumers benefits that will be realized in other states that are
9		aggressively opening the market.
10		
11		III. Pricing of the Total Wholesale Network Service
12		
13	Q.	How does BellSouth propose to price its wholesale services?
14		
15	A.	The BellSouth wholesale proposal offers a mixture of pricing philosophies:
16		
17		* Wholesale network prices should be established by historical
18		coincidence (Scheye, pages 7-9), by adopting the prices of preexisting services
19		that share superficial similarities to the wholesale arrangements requested by
20		new entrants.
21		
22		* Wholesale network prices should be established in accordance with the

1		inverse elasticity principle (Banerjee, page 11), which would increase the price
2		of network services above cost in proportion to the dependency of BellSouth's
3		rival on its network.
4		
5		Neither of these strategies, however, is consistent with fostering a competitive
6		local exchange marketplace as envisioned by Florida Statute and stated
7		legislative intent:
8 9 10 11 12 13 14 15 16 17	Q.	"The Legislature finds that the competitive provision of telecommunications services, including local exchange telecommunications service, is in the public interest and will provide customers with freedom of choice, encourage the introduction of new telecommunications service, encourage technological innovation, and encourage investment in telecommunications infrastructure" Section 364.01(3), Florida Statutes. What principle should guide the establishment of wholesale prices?
19		
20	A.	To maximize competition that is, to promote an environment that will present
21		Florida consumers with the greatest diversity of pricing plans, calling options,
22		and service features it is important that the underlying exchange network be
23		available to all retail providers of local exchange services on the same terms,
24		conditions and prices.

There are only two ways to assure that all retail providers have access to a monopoly network on equivalent terms. The first is to prohibit the monopoly from offering the retail service at all. This is the basic approach that underlaid divestiture. BellSouth was foreclosed from the retail long distance market, but divestiture assured that all *other* retail providers were on an equal footing.

In areas where *both* the monopoly and its rivals provide retail service, however, the only viable mechanism is to establish the price of the underlying monopoly component at its economic resource cost. The effective price of the monopoly network to BellSouth's retail services will be the network's total service long run incremental cost. Regulatory tools cannot change this fundamental fact. So that all providers face the same effective price for the use of this network as BellSouth's own retail service, the wholesale price charged these carriers must reflect this underlying cost.

As a side note, the proper definition of cost for a wholesale network component (unbundled) or platform (bundled) is far closer to the TSLRIC described by Dr. Cornell than the LRIC suggested by Dr. Banerjee. First, Dr. Banerjee is incorrect when he indicates that a LRIC cost analysis would not include service-specific fixed costs (Banerjee, page 5). Both TSLRIC and LRIC measures should be calculated over a time horizon where these costs are variable and thus would be included in the analysis. The more important point is that wholesale

1		network cost analysis is not a retail cost study, attempting to isolate the
2		additional cost of an individual service offered on a network of multiple
3		products. Rather, the relevant analysis should identify the cost of specific
4		network elements (loops, basic switching, network usage, special features such
5		as call waiting etc.) that the retail carrier purchases so that it may fashion retail
6		services.
7		
8	Q.	Does BellSouth understand the importance of cost-based rates?
9		
LO	A.	Yes. BellSouth recently filed comments with the European Commission
L1		considering opening local markets to competition strongly advocating pricing
L2		rules similar to those I support here:
L3		
L4 L5 L6		BellSouth Europe supports the Green Paper's position that "Regulatory authorities should have a responsibility for ensuring cost-oriented pricing structures.
L7		"This should be done by insisting on LRIC-based
L8 L9		interconnection charges.
20	Q.	Will a pricing strategy based on "historical coincidence" yield correct
21		prices?
22		
23	A.	No. The prices of the services that BellSouth proposes to use were never
24		established as wholesale components, they were never intended to promote

1		local competition, and they have never been scrutinized for the purpose of
2		judging their reasonableness in these roles.
3		
4	Q.	Would Dr. Banerjee's "inverse elasticity" principle provide reasonable
5		wholesale prices?
6		
7	A.	No. First, the inverse elasticity rule should not be applied to a wholesale
8		service. Distilled to its essence, the inverse elasticity rule increases the price of
9		an product in this case, the price of the underlying network that BellSouth's
10		competitor must buy in order to provide exchange service to a subscriber until
11		it effects the quantity demanded. In this instance, however, the effect on
12		demand from an excessive wholesale price is that BellSouth's rival is unable to
13		compete with BellSouth.
14		
15		Under this set of incentives, what possible value could the inverse elasticity rule
16		provide? If "correctly" applied, BellSouth could use it to "justify" increasing its
17		prices to rivals to exactly the point at which the rival might offer service, but that
18		BellSouth received most of the profit. The "penalty" from increasing the price
19		beyond this point, however, is not a loss in demand, but the assurance that no
20		rival could compete with BellSouth for the customer's service.
21		
22		Dr. Banerjee also ignores that the inverse elasticity rule, even where it might

1		apply in the pricing of retail services, is structured to adjust prices so as to meet
2		a "revenue requirement". With BellSouth's election of price cap regulation, the
3		concept loses all meaning.
4		
5	Q.	Should the Commission be concerned with establishing operational parity
6		between the services of the reseller and those provided by BellSouth itself?
7		
8	A.	Yes. The Commission should strive for parity between the retail services of
9		BellSouth and to the extent determined by the operational support systems of
10		BellSouth's wholesale offerings the retail services crafted by its rivals.
11		Further, the Commission should strive to make it as easy for consumers to
12		change retail local service providers as it currently is for customers to change
13		long distance carriers.
14		
15		In this last regard, it is important to remember that the interexchange PIC-
16		change process is highly automated and time-tested. In contrast, the systems
17		needed to transfer an end user from BellSouth to a new local carrier using
18		BellSouth's wholesale services will all be new and, at least at the beginning, are
19		unlikely to be as automated or have as low an error-rate as the PIC-change
20		process.

1		IV. Summary
2		
3	Q.	Please summarize your testimony.
4		
5	A.	Changing conditions in the marketplace, and potential changes in federal
6		regulatory policies, all require that local exchange markets be opened to
7		competition. Significantly, local network arrangements in the future will not be
8		altogether different than they are today: the incumbent local telephone
9		company will continue to own the predominant (if not monopoly) local
10		facilities network. The key to a highly competitive retail service environment
11		in spite of the incumbent's dominant position will be the structure and pricing
12		of the incumbent's wholesale choices.
13		
14		The two basic steps needed to accomplish local competition are introducing
15		unbundled loops and the creation of an end-to-end total wholesale network
16		arrangement that any provider can easily combine with its other services,
17		including long distance, and enhance with its own retail marketing and
18		customer support skills.
19		
20		These network options must be introduced expeditiously, supported by
21		operational systems that reflect their wholesale purpose, and priced
22		appropriately.

1 Q. Does this conclude your rebuttal testimony?

2

3 A. Yes.

Thank you. MR. TYE:

2

(By Mr. Tye) Mr. Gillan, have you prepared a Q summary of your testimony?

3 4

Yes, I have. Α

5

Could you give us that summary at this time?

6

The purpose of my rebuttal testimony is to respond to the testimony of Mr. Scheye and

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Dr. Banerjee, specifically their portrayal that

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BellSouth already offers the network elements and

9 10

features that will be necessary for local competition to

11

proceed, and certainly their implication that BellSouth

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should have essentially unfettered discretion in how

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those elements are priced and made available to their

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rivals.

The testimony, actually, tries to do two 15

things, both respond to them specifically, and provide 16

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the Commission with some context for the issues that

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it's addressing in this part of the proceeding. respect to that context, it's useful, I think, to step

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back a little bit and consider where the market is and

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where this industry is likely to be in the next several

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years.

23

conclusions that the Commission should keep in its mind

And the testimony essentially draws three

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25

as it reviews the issue in the proceeding. The first

conclusion is that the dominance of the BellSouth network is not likely to change significantly over the next several years. In fact, it's unlikely to change significantly anytime in the near term. In fact, I would expect that BellSouth's rivals will come to depend on BellSouth's network even more in the future than they do today, because while its dominance won't change, its role will change.

Today rivals use it's network predominantly to originate and terminate long distance traffic. What will happen in the future is that BellSouth's competitors will use its network to originate and terminate long distance traffic and provide most elements of local exchange service. So what you have is the network not really losing its preeminent position in the state; what you're going to have is more and more competitors using that network in different ways to provide service to consumers.

The focus of this instant proceeding really boils down to one single network element: The local loop. The title of the docket refers to resale and a general unbundling, but when you look at the testimony, the only real thing being debated at this time is how should the local loop be made available; what should its price be; what should its terms be.

It's important, I think, for you to keep this in perspective, because while that's a very, very important issue, the reality is, is that I don't think you should get your expectations up too high about what kind of market impact unbundled loops are likely to make. Having loops available in the market for other carriers to provide service, I believe, are going to provide a relatively modest opportunity for some entrants to provide service predominantly in urban areas. It's simply not going to be sufficient for there to be the type of widespread competition that I would believe that you would like to see, certainly that the legislature anticipated when it decided to reduce the regulation of BellSouth.

In order for there to be widespread competition and choice for consumers, far more things are going to have to happen than the availability of unbundled of loops. Carriers are going to have to the opportunity to buy switching capacity, call termination capacity, loops, and most importantly, be able to put those all back together again in order to provide service.

That raises the sort of third general conclusion of the testimony, that the competitiveness of this industry in the future is primarily going to be

decided by how closely Bell's rivals and BellSouth's own retail services have access to the same network.

They're both essentially going to be offered off of the same network platform. For this industry to be as competitive as it can be, essentially BellSouth's services and the services of its rivals have to effectively be paying the same price for the use of that network, which means that those prices have to be based on cost.

That's sort of the broad overview. Why do I say that the unbundled loop approach is going to have a relatively modest opportunity to it? The answer is sheer numbers. If you look at BellSouth's network today in Florida, they essentially serve about 5 million access lines out to homes and businesses. Obviously, nobody really expects that an entrant is going to come in in any near term period, replace those 5 million access lines with the investment it would take to put 5 million competitive or duplicative access lines out there in operation.

Unbundled loops allows a competitor to come in and pick up BellSouth's loops, but it only really allows them to pick it up out of BellSouth's central office.

Well, there's over 200 of those network locations, 200 network locations that are interconnected today by a

vast web of fiber optic facilities. Even that level of network development is going to take a long time to occur. So if the only competitive opportunity is for carriers to use BellSouth's local loops to provide service, you're going to see competition develop slowly, you're going to see it develop on a central office by central office basis, and that means it's going to occur primarily in urban areas and take a long time to get out beyond those urban dense central offices to other consumers.

The other reason is a reason of logistics.

Every time a customer changes from BellSouth for local service to some other provider for local exchange service, if they're using an unbundled loop configuration, a technician literally has to go and reconfigure that circuit from one network over to a different network.

In the long distance industry, when you change long distance carriers, the reason it's so easy is the entire process of software control. You call your local telephone company, you tell them, "I don't want AT&T anymore, I want MCI," or, in deference to my current client, the other way around. That entire activity is handled automatically through software. That's why the systems are in place to be able to handle whatever

percentage of the market changes every year, ten, 20 percent of the market may change long distance carriers in any given year. Logistically that can be handled because the network isn't reconfigured each time.

If unbundled loops are the only way to do it on the local exchange side, then every time customers want to switch, networks have to be reconfigured. And even if you were to expect a relatively modest turnover in customers, say ten percent of the market a year, that would be equivalent to BellSouth reconfiguring 600,000 circuits, or 500,000 circuits, every year. They don't have today, nor will they ever have, the technical — the manpower capability to go into its network and each and every year change that kind of capacity. So you need some other mechanism for carriers to be able to offer local exchange services broadly throughout the state. It's going to be involving using unbundled loops, using switching capacity obtained from BellSouth, and combining the two together.

Now, I don't want you to misinterpret the last discussion as to suggest that you shouldn't put a lot of emphasis on unbundling loops. They will be important. They're an important part of the process of new networks getting developed. But this is the beginning of a very long process for you, and you should enter into it with

your eyes open.

Well, that brings me to the specific concerns
I have with the testimony of BellSouth, which are
basically threefold. The first one is the suggestion in
their testimony that you should not be able to buy a
loop element and a switch element from them and combine
them to offer service. In fact, that ability is
probably the single-most important thing that's going to
exist in the future for companies to be able to easily
offer local exchange service broadly throughout the
state. So you cannot allow them to put restrictions on
carriers recombining network elements purchased from
them.

Secondly is the question as to whether is a loop just like a special access line. In a sense they are because they share many technical characteristics. But the reality, when you look at how they're priced and the administrative systems that are there to support them, it's not designed to enable carriers to provide local exchange service over. Its price is too high and the administrative systems would never support any large-scale transfer customers between providers. So you shouldn't fall into the trap that they've laid that you should price the things the carriers need on an unbundled basis to provide local exchange service the

way superficially similar elements in the current tariff are priced.

rinally is the question of how should these network elements be priced. Dr. Banerjee suggests that you apply what is known in the economics profession as the inverse elasticity rule. In lay terms, what that rule is intended to address is it recognizes the fact that if you priced every service as TSLRIC, you may not trade enough revenue to meet a revenue requirement.

Well, first of all, in BellSouth's price cap
world, a revenue requirement objective shouldn't even be
on the table. But let's assume for a most that it is.
What the inverse elasticity rule tells you to do is go
find the person who has the absolute least alternatives
and jack up their price as high as you can get away with
before they decide not to buy service. Because the
economic property that that rule is intended to try and
promote is to try and get people to have the same
purchasing patterns before you increase their prices as
they would have had had you correctly priced them at
economic prices. And that means you find the person
whose purchasing decision is the least impacted by a
price increase.

Well, in lay terms, intuitively, this makes no sense, because it says that Bell should price a loop to

its rival, they should continue to increase that price up to the point where that rival will no longer buy the loop. In essence, it's a form of competitive 3 euthanasia. It legitimizes you pricing until you put your competitor out of business, particularly in this context where the penalty of the competitor not buying that loop is that the customer, who that loop was going 7 to go to in the first instance anyway, comes and obtains the service from you. So applying that rule in this context makes no sense whatsoever, and the Commission 10 should flatly reject it. That concludes my summary. 11 12 MR. TYE: Thank you, Mr. Gillan. Madam Chairman, the witness is available for 13 cross. 14 CHAIRMAN CLARK: Ms. Wilson? 15 16 MS. WILSON: No questions. 17 CHAIRMAN CLARK: Ms. Weiske? MS. WEISKE: No questions. 18 CHAIRMAN CLARK: Mr. Melson? Mr. Self? 19 20 MR. SELF: Yes, Chairman Clark, I just have a 21 couple. 22 CROSS-EXAMINATION BY MR. SELF: 23 Mr. Gillan, Floyd Self for LDDS WorldCom. 24 your rebuttal testimony, as well as your summary, you've 1 ad
2 co
3 An
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addressed BellSouth's proposal that it not offer the connection of an unbundled loop to an unbundled port.

And in Mr. Scheye's direct testimony at Page 13, he states that this refusal is because -- and to quote the testimony at Line 16, "the resulting service would be functionally equivalent to switched local exchange service."

Now I have two questions about that statement. First, do you agree that the connection of an unbundled loop to an unbundled port is functionally equivalent to switched local exchange service?

A It shouldn't be, but because of the fact that BellSouth misdefines what an unbundled port is, in their proposal you could get back something very close to their local exchange service.

Q Okay. Second, would you agree with me that at least one of the purposes of the new law that brings us here is to introduce switched local exchange competition?

A Yes.

Q And as a predicate for my last question, I need to first check two points with you. First, in your rebuttal at Pages 9 and 10 you discuss what you call the unbundled loop configuration for local competition versus the wholesale service option; is that correct?

Α Yes.

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And are you familiar with the direct testimony Q of Mr. Scheye at Page 14 when, to use his words, that it makes no sense to unbundle local service and then allow it to be bundled back together?

I'm familiar with it.

In your view, did the reasons that he Okay. identifies at Page 14 of his testimony better justify an unbundled competitive model or a wholesale competitive model?

I'm sorry, could you have that one --

He identifies some reasons at Page 14 of his testimony as to why in his view it makes no sense to unbundle local exchange service and then allow it to be, in essence, rebundled back together. And in your view, do the reasons that he identifies there at Page 14 better justify an unbundled competitive model or a wholesale competitive model?

Let me try and answer it this way. One of the Α problems with dockets like this, and this whole issue, is that there really still hasn't developed a standard industry nomenclature for a lot of things.

The fundamental problem with the BellSouth unbundling proposal with respect to the port is that, to me, an unbundled port, and I think what the legislature

intended, was that when you buy an unbundled network element, what you're doing is you're buying the generic capability of that feature or that element, independent of how Bell uses it to provide a service. So when you buy a loop, what you're doing is you're buying a transmission path that is independent of how Bell might have used that loop to provide its local exchange service.

similarly, when you buy an unbundled port or unbundled switching capacity, what you would want to purchase is a raw generic switching capacity, not something that is configured the way Bell configures it to provide its retail local exchange service.

Unfortunately, when you look at the BellSouth proposal, the way they define an unbundled port is they will sell you the switching capacity configured in precisely the manner that they use it to provide their retail service, and then that gives them the opportunity to come back and argue that if you combine a loop and a port you get back exactly my local exchange service, therefore I shouldn't let you do it.

What you should be striving to accomplish here is the ability to buy a port, the ability to buy switching capacity, and importantly, the ability to put them back together, but to put them back together in a

1	way that allows the entity that purchased these
2	capacities to design whatever service that they want,
3	and in that way you don't run afoul of the statute, you
4	empower a number of carriers an opportunity to design
5	whatever kind of local exchange service they think the
6	market will respond to best.
7	So in a sense BellSouth is correct when they
8	say if you combine the loop and the port the way they,
9	BellSouth, have defined it, it may have some tension
10	with the statute. That problem is created because they
11	define the switch in a very limited way. They define it
12	as they use it to provide local exchange service.
13	MR. SELF: Thank you. That's all I have.
14	CHAIRMAN CLARK: Mr. Fincher?
15	MR. FINCHER: No questions.
16	CHAIRMAN CLARK: Mr. Falvey?
17	MR. FALVEY: No questions.
18	CHAIRMAN CLARK: Mr. Carver?
19	MR. CARVER: No questions.
20	CHAIRMAN CLARK: Staff?
21	MS. CANZANO: No questions.
22	CHAIRMAN CLARK: Thank you very much, Mr
23	Oh, Commissioners? Redirect?
24	MR. TYE: No redirect, Chairman Clark.
25	CHAIRMAN CLARK: Thank you, Mr. Gillan.

1	WITNESS GILLAN: Thank you.
2	CHAIRMAN CLARK: Mr. Scheye?
3	MR. LACKEY: We call Mr. Scheye to the stand.
4	ROBERT C. SCHEYE
5	was called as a witness on behalf of BellSouth
6	Telecommunications, Inc., and having been duly sworn,
7	testified as follows:
8	DIRECT EXAMINATION
9	BY MR. LACKEY:
LO	Q Would you please state your name and address
11	for the record?
12	A Robert C. Scheye.
13	Q Mr. Scheye, by whom are you employed?
L4	A BellSouth Telecommunications.
15	Q Mr. Scheye, did you cause to be prefiled in
۱6	this proceeding on November 27, 1995
17	A I'm sorry I didn't hear you. I was turning
18	on the microphone. Sorry.
19	Q Are we ready?
20	A We are now.
21	Q Mr. Scheye, did you cause to be prefiled on
22	November 27th, 1995, 21 pages of questions and answers
23	in testimony form?
24	A Yes.
25	Q Do you have any changes or corrections to the

prefiled testimony? 1 2 No, I do not. If I were to ask you the questions that appear 3 Q in your prefiled testimony today, would your answers be the same? 5 Yes, they would be. 6 7 Were there two exhibits attached to your Q 8 prefiled testimony? 9 Α Yes. 10 Do you have any changes or corrections to the Q exhibits? 11 12 A No, I do not. MR. LACKEY: Madam Chairman, could I have the 13 next exhibit number for these? 14 15 CHAIRMAN CLARK: Shall we insert his testimony 16 in the record? MR. LACKEY: I was going to. Would you prefer 17 18 that I do that first? Madam Chairman, could I have Mr. Scheye's 19 prefiled testimony included in the record as if given 20 orally from the stand. 21 22 CHAIRMAN CLARK: The prefiled direct testimony 23 of Mr. Scheye will be inserted in the record as though read. 24 25 MR. LACKEY: Madam Chairman, could I have his

two exhibits marked with the next exhibit number? CHAIRMAN CLARK: And the next exhibit number for his exhibits marked RCS-1 and 2 will be Exhibit 10. (Exhibit No. 10 marked for identification.)

1	BELLSOUTH TELECOMMUNICATIONS, INC.
2	DIRECT TESTIMONY OF ROBERT C. SCHEYE
3	BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4	DOCKET NOS. 950984A-TP (MFS PETITION),
5	AND 950984B-TP (MCIMETRO PETITION)
6	NOVEMBER 27, 1995
7	
8	
9 Q.	Please state your name, address and position with
10	BellSouth Telecommunications, Inc. ("BellSouth" or
11	"The Company").
12	
13 A.	My name is Robert C. Scheye and I am employed by
14	BellSouth Telecommunications, Inc., as a Senior
15	Director in Strategic Management. My address is
16	675 West Peachtree Street, Atlanta, Georgia
17	30375.
18	
19 Q.	Please give a brief description of your background
20	and experience.
21	
22 A.	I began my telecommunications company career in
23	1967 with the Chesapeake & Potomac Telephone
24	Company (C&P) after graduating from Loyola College
25	with a Bachelor of Science in Economics. After

1	several regulatory positions in C&P, I moved to
2	AT&T in 1979, where I was responsible for the FCC
3	Docket dealing with competition in the long
4	distance market. In 1982, with divestiture, this
5	organization became responsible for implementing
6	the MFJ requirements related to nondiscriminatory
7	access charges. In 1984, this organization became
8	part of the divested regional companies' staff
9	organization known as Bell Communications
10	Research. I joined BellSouth in 1988 as a
11	Division Manager responsible for jurisdictional
12	separations and other FCC related matters. In
13	1993, I moved to the BellSouth Strategic
14	Management organization, where I have been
15	responsible for various issues, including local
16	exchange interconnection, unbundling and resale.
17	
18 Q.	What is the purpose of your testimony?
19	
20 A.	The purpose of my testimony is to address the
21	issues listed in the issues list attached to my
22	testimony as exhibit RCS-1. My testimony will
23	also respond to the issues raised by Mr. Timothy
24	T. Devine on behalf of Metropolitan Fiber Systems
25	of Florida, Inc. (MFS-FL) in Docket No.

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950984A-TP; and by MS. Nina Cornell and Mr. Don
1
        Price on behalf of MCImetro Access Transmission
2
3
        Services, Inc. (MCImetro) in Docket No.
        950984B-TP.
5
 6 0.
        Have BellSouth and MFS-FL or BellSouth and
        MCImetro reached any agreement on unbundling
 7
 8
        issues?
 9
             While the parties to this proceeding
10 A.
11
        agree on most of the specific unbundling issues,
12
        no general agreement has been reached because
        BellSouth believes that issues concerning local
13
        interconnection, unbundling and universal service
14
        should be negotiated together as part of one
15
        comprehensive package. My Exhibit RCS-2 lists the
16
        unbundling items that have been mentioned during
17
18
        the course of negotiations.
19
20 Q.
        What elements should be made available by
        BellSouth to MFS-FL and MCImetro on an unbundled
21
22
        basis (e.g., loop elements, port elements, loop
23
        concentration, and loop transport)? [Issue # 1]
24
```

BellSouth plans to offer unbundled loops and

25 A.

1	associated transport, unbundled ports, channel
2	multiplexing and associated transport, and virtual
3	collocation. BellSouth does not plan to offer
4	sub-loop unbundling, loop concentration or
5	connection of unbundled loops to unbundled ports.
6	
7 Q.	What are the appropriate technical arrangements
8	for the provision of such unbundled elements?
9	[Issue # 2] Please explain how BellSouth intends
10	to provide unbundled local loops and ports?
11	
12 A.	Voice grade local loops are already available
13	today to Alternative Access Vendors (AAVs) from
14	BellSouth's Access Services Special Access tariff
15	These local channels provide the facilities from
16	an end user's premises to that end user's serving
17	wire center. The same channels may also be
18	utilized by an Alternative Local Exchange Company
19	(ALEC). Additionally, any interoffice transport
20	facilities necessary to connect a local channel
21	from the end user's serving wire center to the
22	ALEC's point of interface are also available in
23	the Access Services tariff.
24	
2.5	PollSouth intends to file a new tariff offering

1		that will provide an unbundled two-wire voice
2		grade exchange port for connection of an ALEC's
3		end user loop to BellSouth's public switched
4		network. The unbundled port will have the same
5		local calling scope, features and functionality as
6		a BellSouth provided bundled residence or business
7		telephone line. Three types of exchange ports
8		will be offered: a residence port, a business port
9		and a PBX trunk port. Rotary or hunting
10		capability will be provided in association with
11		each type of port on an optional basis at an
12		additional charge.
13		
14	Q.	How does BellSouth plan to offer channel
15		multiplexing and associated transport?
16		
17	A.	Channel multiplexing and associated transport are
18		currently offered as High Capacity Service in our
19		Special Access Service tariff. An ALEC, just like
20		any other carrier, can purchase these services at
21		tariff rates.
22		
23	Q.	Could you explain what BellSouth's plans are for
24		collocation with ALECs in Florida?
25		

```
On November 20, 1995, BellSouth filed a tariff
1 A.
       with the Commission that will offer Virtual
2
        Expanded Interconnection Service (VEIS) for basic
3
                                  This tariff has an
        transmission facilities.
        expected effective date of January 19, 1996. When
5
        the tariff is approved, VEIS will also be
6
        available to ALECs.
 7
 8
        VEIS is subject to the availability of space and
9
        facilities in each BellSouth location and provides
10
        for location interconnection of
11
        collocator-provided/BellSouth-leased fiber optic
12
        facilities to BellSouth's services. Under VEIS, a
13
        collocator provides fiber optic cable up to a
14
        BellSouth designated interconnection point outside
15
16
        of the BellSouth location, such as a manhole.
        collocator will provide the entrance fiber
17
        extending between the interconnection point and
18
19
        the location. BellSouth will lease the entrance
        fiber and install the fiber into the location.
20
21
        What is the appropriate rate level for unbundled
22 Q.
23
        loops?
                [Issue # 3]
24
        The appropriate rate level for unbundled loops is
25 A.
```

the current Special Access tariff rate for a voice 1 grade local channel for several reasons. 2 3 First, these unbundled facilities do not terminate at the BellSouth switch. Rather, they are 5 provisioned and maintained in a manner that is 6 more analogous to a Special Access dedicated line 7 than to a regular switched exchange line. As far 8 as BellSouth's network is concerned, these are 9 non-switched facilities. Contrary to MS. 10 Cornell's assertion on page 8, lines 1 - 3, of her 11 testimony, BellSouth must still provision, test 12 and maintain the unbundled loop facilities offered 13 These facilities are owned by BellSouth to ALECs. 14 and final responsibility for their appropriate 15 operation remains with BellSouth. 16 17 Second, there are situations when it is more 18 economical to directly integrate local loops into 19 the central office switch via Subscriber Loop 20 Carrier (SLC) technology. When an ALEC requests 21 an unbundled loop in situations such as this, 22 these loops have to be "unintegrated" from the 23 This requires additional engineering 24 switch. effort, as well as the purchasing and installation 25

1	of additional equipment in the central office.
2	Therefore, it is incorrect to equate local loops
3	terminated at a Company switch with unbundled
4	local loops which terminate at the ALEC's point of
5	interface.
6	
7	Finally, pricing of dedicated non-switched
8	facilities at rates other than the current Special
9	Access tariff rates will create opportunities for
10	tariff shopping and arbitrage. For instance,
11	existing customers of two-wire dedicated
12	facilities may request a change to the new
13	tariffed service if unbundled local loops were to
14	be priced at rates lower than the current Special
15	Access rates, thus putting at risk the Company's
16	current Special Access revenues.
17	
18 Q.	How does BellSouth plan to price its unbundled
19	ports? [Issue # 3]
20	
21 A.	BellSouth plans to price or rate unbundled ports
22	on a measured basis consisting of a monthly rate
23	and a usage rate. The usage rate will be the same
24	as that of Shared Tenant Service contained in
25	Section 123 of BellSouth's Ceneral Subscriber

1	Service Tariff (GSST). The Shared Tenant Service
2	tariff is the vehicle currently in place that
3	allows for the resale of BellSouth's local
4	exchange service. Unbundled ports are another
5	form of resold local exchange service and should
6	be priced consistent with the current Shared
7	Tenant Service tariff.
8	
9 Q.	What arrangements, if any, are necessary to
10	address other operational issues? [Issue # 4]
11	
12 A.	I believe it is premature for the Commission to
13	address operational issues at this time. Chapter
14	364, Section 161 of the Florida Statutes clearly
15	contemplates that there will be negotiation of
16	these issues between the parties. The Company
17	believes that these issues can be negotiated to
18	the mutual satisfaction of all parties. If
19	negotiations fail, MFS-FL and MCImetro have the
20	right to file a complaint with the Commission in
21	order to resolve any issues they feel necessary.
22	
23 Q.	What mechanism should be put in place to enable
24	ALECs to request further unbundling of BellSouth's
25	network?

1	
2 A.	In dealing with further or new requests to
3	unbundle other network capabilities, BellSouth
4	recommends that the existing Open Network
5	Architecture (ONA) model and criteria be used to
6	the extent possible to determine the feasibility
7	of unbundling new network capabilities. The ONA
8	criteria adopted by the FCC includes the following
9	requirements that must be met for unbundling:
10	
L1	Technical Feasibility: The capability can be
12	separately provided as a network component and it
13	is not dependent on other network components to
14	have functionality.
15	
16	Costing Feasibility: The capability must have a
17	discrete, identifiable cost available under
18	existing cost methodology.
19	
20	Market Demand: There must be a level of need
21	expressed by a customer or customers sufficient to
22	recover the costs of the capability.
23	
24	<u>Utility:</u> There must be a demonstration that, if
25	unbundled, the capability has the ability to be

1	used in the provision of a service offering.
2	
3	Under the ONA model, a requested unbundled element
4	must meet these requirements to be technically and
5	economically feasible.
6	
7	The ONA request process provides for a 120 day
8	review cycle which begins once a new request for a
9	new network capability is received. BellSouth
10	recommends a similar time frame for dealing with
11	such requests in Florida. During this cycle, the
12	request can be negotiated between the parties and
13	can be evaluated with respect to the criteria
14	discussed previously. The network capability
15	should only be offered after a determination is
16	made that these criteria have been met.
17	
18 Q.	On page 13 of MFS-FL witness Timothy T. Devine's
19	testimony, he states that, in addition to voice
20	grade unbundled loops and ports, BellSouth should
21	also offer two-wire ISDN digital grade and
22	four-wire DS-1 (1.544 Megabits per second) digital
23	grade loops; and the following ports: two-wire
24	ISDN digital line, two-wire analog DID trunk,
25	four-wire DS-1 digital DID trunk: and four-wire

1	ISDN DS-1 digital trunk. Could you comment on
2	this?
3	
4 A.	These particular loops and ports requested by
5	MFS-FL are not part of basic local exchange
6	service. The ISDN loops and ports are part of
7	either basic rate or primary rate ISDN. The
8	two-wire analog DID truck port is part of DID
9	trunk service. To my knowledge, the four-wire
10	DS-1 digital DID trunk port is not part of any
11	service currently offered by BellSouth under
12	tariff. BellSouth's initial focus has been to
13	develop unbundled capabilities essential to offer
14	basic exchange services.
15	
16	As for the two-wire analog DID trunk port
17	requested by MFS-FL, it will be made available
18	initially by combining the unbundled PBX trunk
19	port mentioned earlier with an already existing
20	DID trunk termination. The DID trunk termination
21	is currently available in Section Al2. of
22	BellSouth's General Subscriber Services Tariff
23	(GSST).
24	
25	While BellSouth believes it may be technically

1	possible to offer the remaining ISDN and DS-1
2	loops and interfaces, it has concentrated its
3	resources on handling the basic elements first.
4	Consistent with the mechanism proposed earlier for
5	handling new requests for unbundling, BellSouth
6	also would require a demand forecast from MFS-FL
7	and other ALECs in order to evaluate the
8	appropriateness of this request and then allocate
9	resources accordingly.
10	
l1 Q.	Will BellSouth offer the connection of unbundled
12	loops to unbundled ports as requested by MFS-FL?
13	
14 A.	No. BellSouth will not offer such a connection
15	because when an unbundled loop is connected to an
16	unbundled port, the resulting service would be
17	functionally equivalent to switched local exchange
18	service. To allow such a connection would create
19	another opportunity for price arbitrage since two
20	functionally equivalent services would be
21	available at different prices.
22	
23	If an ALEC wants to purchase and resell basic
24	exchange service, it would be far more efficient
25	to provision and sell such a service as one.

_		consistent with revised thapter 364, ALECS will be
2		able to resell the Company's currently available
3		local exchange message and measured rate services.
4		
5		
6		Furthermore, it makes no sense to unbundle local
7		exchange service and then to turn around and
8		develop new ordering and installation procedures
9		that would allow for the connection of the piece
10		parts. It would be more costly to provision, sell
11		and maintain these services as separate items.
12		For example, it would take longer to negotiate and
13		write an order for an unbundled loop and an
14		unbundled port and to somehow indicate their
15		cross-connection in the service order document,
16		than it would take to write an order for a regular
17		bundled exchange line.
18		
19		The likely result of allowing the reconnection of
20		unbundled loops to unbundled ports would be a
21		higher price for the sum of the corresponding rate
22		elements compared to the equivalent bundled
23		counterpart.
24		
25	Q.	Will BellSouth offer loop concentration to

1		MCImetro and MFS-FL?
2		
3	A.	No. BellSouth does not intend to offer loop
4		concentration because loop concentration is not
5		true unbundling, rather it is a new network
6		capability. The provision of loop concentration
7		would require the development of an entirely new
8		service, i.e., it is not a capability that can be
9		disaggregated from another functionality within
10		the network. Purchase of new hardware and the
11		placement thereof in BellSouth's central offices
12		would be required in order to provide the service.
13		If MFS-FL or MCI ever decided to stop purchasing
14		this capability, it is unlikely that BellSouth
15		could use this equipment within the same office.
16		
17		Clearly, loop concentration does not meet the
18		criteria for network unbundling contemplated under
19		Chapter 364 of the Florida Statutes. Unbundling,
20		by definition, requires that an existing
21		capability in a LEC's network be broken out into
22		individual piece parts. Loop concentration, on
23		the other hand, requires the creation of a new
24		capability.

1	Q.	On pages 14 and 15 of Mr. Devine's testimony, he
2		describes Digital Loop Carrier (DLC) technology
3		and states that MFS-FL is seeking to lease as one
4		element, the DS-1 rate digital distribution
5		facility and DLC terminal; and to lease as
6		discrete incremental elements individual channels
7		on voice grade feeder/drop facilities. Could you
8		comment on this?
9		
10	A.	What MFS-FL is requesting as far as leasing
11		individual channels on feeder/drop facilities is
12		simply further unbundling of the local loop into
13		"sub-loop" elements. BellSouth has no plans to
14		offer this "sub-loop" unbundling.
15		
16		First, the operations and support systems required
17		to order and administer such sub-loop unbundling
18		would be extremely difficult to develop and
19		maintain. Essentially, what MFS-FL is requesting
20		is for BellSouth to allow MFS-FL to terminate an
21		MFS-FL provided customer drop in a BellSouth
22		provided Remote Terminal (RT) in the field. This
23		is simply not practical when many ALECs are
24		involved because each drop would need to be
25		tracked senarately nor ALEC at each PM

1	
2	Additionally, MFS-FL proposes that it and other
3	ALECs be allowed access to BellSouth's plant in
4	the field. Accountability and control of the
5	network would be completely lost at that point.
6	
7	Second, the local loop network is engineered as an
8	end to end integral unit generally consisting of
9	copper loops, cross-connect boxes, the SLC RT and
10	terminations in the central office. Fragmentation
11	of this integral unit introduces additional points
12	of potential network failure.
13	
14	Mr. Devine claims that "this further unbundling of
15	the links into digital distribution and
16	voice-grade feeder/drop sub-elements is necessary
17	in order to ensure that the quality of links
18	MFS-FL leases from the (sic) BellSouth is equal to
19	the quality of links that BellSouth provide (sic)
20	to end users." Further unbundling into these
21	sub-elements is not necessary to ensure equal
22	quality. On the contrary, considering the
23	tracking and administration problems this would
24	create, combined with the loss of accountability
25	and the fragmentation problem I discussed

1 previously, Mr. Devine's proposal is fraught with 2 potential quality problems. 3 4 Q. On page 24, lines 9 through 15, of Mr. Devine's 5 testimony, he proposes pricing guidelines for unbundled rate elements. What is your assessment of his proposal? 7 8 9 A. Mr. Devine proposes that the sum of the prices for 10 the unbundled rate elements not exceed the price 11 of the bundled dial tone line. He further 12 proposes that ALECs be allowed to recombine 13 (connect) unbundled loops and ports. 14 15 This should not be allowed because the two 16 proposals, taken together, would have the effect 17 of allowing ALECs to purchase the equivalent of 18 flat rated residence and business lines at 19 currently tariffed flat rates. His proposals are 20 just an attempt to lead the Commission into 21 circumventing the intent of Section 364.161(2), 22 Florida Statutes 1995, which states: "The local 23 exchange telecommunications company's currently 24 tariffed, flat rated, switched residential and 25 business services shall not be required to be

1	resold until the local exchange telecommunications
2	company is permitted to provide inter-LATA
3	services and video programming, but in no event
4	before July 1, 1997."
5	
6	Further, Section 364.161(1) prohibits the sale of
7	"unbundled local loops at prices that are below
8	cost." Section 364.161(2) also states: "In no
9	event shall the price of any service provided for
10	resale be below cost." To the extent that
11	residential local exchange service is currently
12	priced below its Long Run Incremental Cost, Mr.
13	Devine's proposals would be inconsistent with the
14	requirements of Florida law.
15	
16 Q.	Does BellSouth plan to offer to collocate ALEC
17	owned remote switching modules in BellSouth's
18	central offices as suggested by Mr. Devine on page
19	19, lines 1 - 3, of his testimony?
20	
21 A.	No. The objective of collocation is to facilitate
22	the interconnection of <u>transmission facilities</u>
23	between a LEC and an interconnector. It has
24	nothing to do with the placement of switching
25	equipment in LEC central offices. Collocation has

1	been limited to the placement of transmission
2	equipment in LEC central offices. For instance,
3	in its Second Report and Order, and Third Motion
4	of Proposed Rulemaking released September 2, 1993
5	in Docket No. 91-141, the FCC concluded:
6	"Collocation of non-transmission equipment is not
7	related to the competitive provision of basic
8	transmission services. In addition, we agree with
9	PacTel that interconnectors need not place their
10	own switches on LEC premises to gain the benefits
11	of expanded interconnection. Thus, LECs will not
12	be required to allow interconnectors to collocate
13	switches in LEC locations."
14	
15	Mr. Devine disguises his proposal for placement of
16	their switching equipment in the Company's central
17	offices as a natural extension of loop unbundling
18	when in fact it has nothing to do with it.
19	
20	Additionally, the issue of collocation of
21	switching equipment in company central offices is
22	well beyond the scope of this proceeding. Such
23	an issue should be considered in a separate docket
24	where all parties can be heard.
25	

1	Q	(By Mr. Lackey) Mr. Scheye, on December 11th,
2	1995, did 3	you cause to be prefiled in this proceeding
3	ten pages	of questions and answers in testimony form?
4	A :	Yes.
5	Q I	Do you have any changes or corrections to that
6	testimony?	
7	A 1	No, I do not.
8	Q :	If I were to ask you the questions that appear
9	in that te	stimony today, would your answers be the same?
10	A :	Yes, they would.
11	Q i	And there were no exhibits attached to that;
12	is that com	rrect?
13	A !	That is correct.
14	Q 1	Madam Chairman, could I have the prefiled
15	rebuttal to	estimony, filed on December 11th, 1995 on
16	Mr. Scheye	's behalf, included in the record as if given
17	orally from	m the stand?
18	(CHAIRMAN CLARK: The prefiled rebuttal
19	testimony o	of Mr. Robert C. Scheye dated December 11th,
20	1995 will 1	be inserted in the record as though read.
21		
22		
23		
24		
25		

-		bededooin issuscommonications, inc.
2		REBUTTAL TESTIMONY OF ROBERT C. SCHEYE
3		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4		DOCKET NO. 950984B-TP (MCIMETRO PETITION)
5		DECEMBER 11, 1995
6		
7		
8	Q.	Please state your name, address and position with
9		BellSouth Telecommunications, Inc. ("BellSouth"
10		or "The Company").
1		
12	A.	My name is Robert C. Scheye and I am employed by
13		BellSouth Telecommunications, Inc., as a Senior
L 4		Director in Strategic Management. My address is
L 5		675 West Peachtree Street, Atlanta, Georgia
۱6		30375.
L 7		
18	Q.	Did you file direct testimony in this docket?
L 9		
20	A.	Yes.
21		
22	Q.	What is the purpose of your rebuttal testimony?
23		
24	A.	The purpose of my rebuttal testimony is to respond
25		to issues relating to unbundling discussed in the

1	testimonies of witnesses Nina Cornell and Don
2	Price on behalf of MCImetro Access Transmission
3	Services, Inc. (MCImetro), Timothy T. Devine on
4	behalf of Metropolitan Fiber Systems of Florida,
5	Inc. (MFS-FL) and Mike Guedel on behalf of AT&T.
6	Since witnesses Cornell, Price and Devine simply
7	adopted their previously filed testimony, for the
8	sake of brevity, I will also adopt my testimony
9	dated November 27, 1995 ("November testimony") to
10	respond to their issues.
11	
12	Only Mr. Guedel has filed more testimony. Some of
13	the issues raised in Mr. Guedel's new testimony
14	have already been discussed in my November
15	testimony. To avoid repetition, when Mr. Guedel
16	merely repeats what he has said earlier, I will
17	often rely upon and incorporate by reference, my
18	earlier testimony in this proceeding. However,
19	Mr. Guedel's testimony does require additional
20	comment in a number of respects.
21	
22 Q.	On pages 4 and 5 of Mr. Guedel's testimony he
23	defines interconnection and unbundling. Do you
24	agree with Mr. Guedel's definitions?
25	

1 A.	I agree with Mr. Guedel that there is a
2	distinction between interconnection and
3	unbundling. I also agree with Mr. Guedel's
4	description of interconnection as "the act of
5	linking two networks together such that calls or
6	messages that originate on one of the networks may
7	transit or terminate on the other network."
8	However, in his definition of unbundling, he mixes
9	items that are part of interconnection with items
10	that are unbundled network capabilities. For
11	example, in his list of 11 "Basic Network
12	Functions," Mr. Guedel lists such items as tandem
13	switching, common transport links and dedicated
L 4	transport links. These items are clearly integral
15	parts of local interconnection because they
16	provide the functionality necessary to link two
17	networks together.
18	
19	The signaling links, signal transfer points (STPs)
20	and signal control points (SCPs) also mentioned by
21	Mr. Guedel in his unbundling discussion are part
22	of Signaling System 7 (SS7) interconnectivity.
23	While I agree that these may be considered
24	unbundled network capabilities, SS7
5	interconnectivity is addressed in issue 10 of

1		Docket No. 950985-TP. Likewise, his list includes
2		operator systems as an unbundled network
3		capability. This is addressed in issues 6 and 7
4		of Docket No. 950985-TP as well as my testimony in
5		that docket.
6		
7	Q.	On page 5, line 19 of his direct testimony, Mr.
8		Guedel also lists "switching" as an unbundled
9		capability that BellSouth should provide. Could
10		you comment on this?
11		
12	A.	I have read Mr. Guedel's testimony several times
13		and I am still not sure what he means by this.
14		Clearly switching is a part of interconnection,
15		not of unbundling. When two networks are linked,
16		calls from one network are switched in the other
17		network at either an end office, a tandem or both.
18		
19		Mr. Guedel, however, on page 10 of his direct
20		testimony, appears to imply that the switching
21		function should be unbundled into additional
22		pieces, such as 1) recognizing service requests,
23		2) obtaining call specific information, 3) data
24		analysis, 4) route selection, 5) call completion,
25		and 6) testing and recording, etc. The switching

1		function that BellSouth plans to offer will
2		include all these piece parts. BellSouth believes
3		that these piece parts cannot be separated from
4		the switch and, therefore, cannot be offered
5		separately as Mr. Guedel wants.
6		
7	Q.	Mr. Guedel also wants the ALECs to have access to
8		Advanced Intelligent Network (AIN) triggers. What
9		is BellSouth's position on that?
10		
11	A.	I am uncertain as to exactly what Mr. Guedel has
12		in mind as far as unbundled AIN triggers and the
13		call control capabilities that he mentions on
14		pages 10 and 11 of his testimony. BellSouth has
15		been a leading proponent of opening up AIN and is
16		implementing a plan to accomplish this.
17		Initially, the plan provides access to the
18		programming tools necessary for third parties to
19		develop and sell AIN services. This includes
20		access to AIN triggers. These capabilities will
21		be offered as DesignEdge sm service and are
22		presently undergoing final testing. A tariff for
23		these capabilities will be filed in Florida as a
24		market trial Limited Service Offering in the first
25		quarter 1996.

1		
2		The BellSouth plan will offer capabilities that
3		would allow all users and all customers to be
4		protected from problems that may be caused by a
5		third party. In BellSouth's view, however, to
6		allow an ALEC call control capability within a
7		BellSouth switch means that the ALEC would have a
8		port to the switch processor and the ability to
9		change translations within the switch. This would
10		clearly leave customers unprotected and,
11		therefore, is not planned as an offering.
12		
13	Q.	Mr. Guedel seems especially concerned with
14		BellSouth's provisioning of Signaling System 7
15		(SS7). Could you further elaborate on how BST
16		plans to offer SS7 interconnectivity?
17		
18	A.	Yes. BellSouth will provide links that will allow
19		for the interconnection of an ALEC end office to a
20		BellSouth Signal Transfer Point (STP). Links that
21		will allow for the interconnection of an ALEC STP
22		to a BellSouth STP will also be offered. In its
23		initial offering, BellSouth does not plan to
24		provide interconnection with a BellSouth Signaling
25		Control Point (SCP). However, BellSouth will

1		offer access to 800 and Line Information Data
2		Bases which will provide some of the same
3		functionalities obtained by interconnecting with
4		the SCP.
5		
6		As I discussed in my November testimony, BellSouth
7		has concentrated its initial effort on developing
8		capabilities essential to offer basic exchange
9		service. However, BellSouth would be agreeable to
10		offering connectivity to a BellSouth SCP at a
11		later date, provided that such a functionality
12		meets the unbundling criteria which I described in
13		detail in my November testimony.
14		
15	Q.	The remaining functions listed by Mr. Guedel are
16		loop distribution, loop concentration and loop
17		feeder. Does BellSouth intend to provide these
18		functions?
19		
20	A.	The local loop facility which BellSouth intends to
21		provide includes the components listed by Mr.
22		Guedel. BellSouth will offer an unbundled loop
23		for connection of an ALEC end user to a BellSouth
24		switch. However, Mr. Guedel seems to imply that
25		BellSouth should unbundle the local loop into

1		piece parts. BellSouth disagrees that the local
2		loop should be further unbundled into sub-loop
3		components because it would create many
4		provisioning and administrative problems.
5		
6		As I stated in my November testimony, the
7		operations and support systems required to order
8		and administer sub-loop unbundling would be
9		extremely difficult to develop and maintain.
10		Additionally, BellSouth would lose accountability
11		and control of its own plant in the field because
12		it would have to give access to its own equipment
13		to someone else. Finally, fragmenting what is
14		currently engineered as an integral unit will
15		introduce additional points of potential network
16		failure.
17		
18		To summarize, sub-loop unbundling is not
19		reasonable and it is not necessary.
20		
21	Q.	Mr. Guedel, on pages 12 and 13 of his testimony,
22		argues that unbundled network elements should be
23		priced at Total Service Long Run Incremental Costs
24		(TSLRIC). Do you agree?
25		

1 A.	No. As discussed in Dr. Banerjee's testimony
2	filed on November 27, 1995, such a pricing scheme
3	does not make economic sense. Although Mr. Guedel
4	acknowledges that the LECs have spent "hundreds of
5	millions of dollars over the years in constructing
6	their networks," he is not willing to allow
7	BellSouth to achieve a contribution to joint and
8	common costs of its operations from that
9	investment.
10	
11	Similarly, the ALECs are proposing that unbundled
12	capabilities be offered at cost, either through a
13	TSLRIC or Long Run Incremental Cost (LRIC)
L 4	methodology. In either case, LECs would be denied
15	a contribution to their shared and common costs.
L 6	
L7	Additionally, other vendors offer some of these
18	services (e.g., Operator Services) at market
L9	prices that are well above cost. There is no
20	reason to expect a LEC to offer such services at
21	other than market prices.
22	
23	It makes absolutely no sense to insist that a LEC
24	offer any of its services (i.e. bundled or
25	unbundled, wholesale or retail) at cost.

1		Furthermore, it makes no sense for a LEC to invest
2		capital to offer unbundled network capabilities to
3		ALECs at cost when it can utilize the same capital
4		and the same network components to offer bundled
5		and/or retail services at a price that would cover
6		cost and realize a contribution to the LEC's
7		common and shared costs. In my view, to require
8		the offering of such unbundled network components
9		at cost is patently unfair, unreasonable and
10		unrealistic.
11		
12 Ç	2.	Does this conclude your testimony?
13		
14 7	Α.	Yes.
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

- Q (By Mr. Lackey) Mr. Scheye, do you have a summary of your direct and rebuttal testimony?
 - A Yes, I do.

- Q Would you please give it?
- A Thank you. Good afternoon. My testimony describes BellSouth's position concerning the elements that should be made available by BellSouth to both MFS and MCI Metro on an unbundled base.

In addition, my testimony describes the technical arrangements under which such elements should be offered and under what terms and conditions unbundled elements should be made available. It is BellSouth's position that it is appropriate to offer an array of features, functions and/or capabilities, including unbundled loops and ports, channel multiplexing and associated transport and virtual collocation. Virtual, collocation, however is currently pending before this commission in another proceeding.

In addition, other unbundled capabilities that have been requested by the alternate carriers, and that BellSouth plans to offer, include some of the following: Directory assistance, inclusion of an alternate carrier's customer's name in BellSouth's directories, providing additional directory listings to the alternate exchange carrier's customers, number

portability and connection to enhanced 911 services,

LIDB, or line information database storage services, 800

database services, signaling, operator services and

access to BellSouth's poles, ducts and conduits. Of

course several of these items were raised yesterday in

the other proceeding.

In general, unbundled elements should be made available, be it tariff, or where appropriate, under contractual arrangements. To the extent that tariffs currently exist for unbundled elements, then it is appropriate to use the existing tariffs and their rates, terms and conditions for those purposes.

When tariffs are not available for such elements, new tariffs or contracts will be developed consistent with Florida law. The unbundled elements must be offered at prices that are not below cost.

Finally, BellSouth recommends that the open network architecture process and associated criteria be used to the extent possible to evaluate future requests for unbundled elements once the initial group of unbundled capabilities has been established.

Thank you very much.

- Q Does that complete your summary, Mr. Scheye?
- 24 A Yes, sir.

MR. LACKEY: Mr. Scheye is available now.

1 CHAIRMAN CLARK: Ms. Wilson? 2 MS. WILSON: I have no questions at this time. 3 CHAIRMAN CLARK: Mr. Melson? 4 MR. MELSON: Commissioner, I've got about 5 three exhibits I would like to use. If we can stand in 6 place about 30 seconds we'll get them handed out here. 7 (Pause) 8 MR. MELSON: Never seen so many people willing to help to try to finish a hearing by five. 9 10 Commissioner Clark, we've handed out three 11 documents, and the first one I would like to identify is a Southern Bell tariff transmittal letter and cost 12 support. The first page says T-94-491 in the upper 13 14 right-hand corner. If we could have that identified as 15 the next numbered exhibit. 16 CHAIRMAN CLARK: The letter of transmittal and 17 the tariff addressed to Mr. Walter D'Haeseleer, dated 18 September 9, 1994, which is tariff filing 94-491, will be marked as Exhibit 11. 19 20 (Exhibit No. 11 marked for identification.) 21 MR. MELSON: Next I would like to have marked 22 several interrogatories that were previously introduced 23 in the prior docket. It is BellSouth's Response to AT&T's First Set of Interrogatories in Docket 950696-TP,

Interrogatories No. 3, 4, 9, 10 and 11.

25

1 CHAIRMAN CLARK: BellSouth's Answers to AT&T's 2 First Set of Interrogatories for questions 3, 4, 9, 10 and 11 will be marked as Exhibit 12. 3 4 (Exhibit No. 12 marked for identification.) 5 MR. MELSON: And finally, there is one sheet 6 out of BellSouth Telecommunications, Inc.'s, Access Service Tariff. It is Section E7.5 of their dedicated 7 access services. 8 9 CHAIRMAN CLARK: The document entitled Access Service Tariff, effective May 19, 1995 for dedicated 10 access services will be marked as Exhibit 13. 11 12 MR. MELSON: Thank you, Madam Chairman. 13 (Exhibit No. 13 marked for identification.) 14 **CROSS-EXAMINATION** 15 BY MR. MELSON: 16 Mr. Scheye, I'm Rick Melson representing MCI It's your testimony that the price to an 17 18 alternative local exchange company for an unbundled 19 local loop should be taken from the special access 20 tariff; is that correct? 21 Yes, sir. 22 And the portion -- the item described in the 23 local access or the special access tariff that corresponds to the unbundled local loop is the two-wire 25 voice grade local channel; is that correct?

It could be. You could also have a four-wire, 1 or a DS1, but for the purpose of today you can say it's 2 3 a two-wire. Is the most common way of providing residential local exchange service to use a two-wire 5 loop? 6 7 Yes. If you would turn to what was marked as 8 Q 9 Exhibit 13, the access service tariff, could you identify on that for me what the current price of the 10 11 two-wire voice grade local channel would be? Looks like it's \$21.15. 12 And that is the price you propose to charge an 13 0 ALEC for an unbundled loop; is that correct? 14 15 Yes, sir. And in the tariff that price is not 16 distance-sensitive; is it? 17 18 No, sir, it's not. Now, if you would turn to what's been marked 19 20 as Exhibit No. 12, which is the interrogatory answers, 21 and turn to Item No. 11. It's the next to the last page. By reference to that interrogatory answer, can you tell me what the BellSouth's average monthly access 23

line revenue for 1994 was for residence service?

Residence, it says \$9.76.

25

1	Q And would that correspond to what we call a
2	1FR service?
3	A I would think so. I'm not quite sure what
4	average monthly revenue, but I believe that's the case.
5	Q And if you were to look at the total of what
6	the customer perceived that he or she paid for local
7	service, would you have to add to that figure a federal
8	subscriber line charge?
9	A Yes.
LO	Q And do you know what that current charge is?
۱1	A Residence, it's \$3.50.
L2	Q So we would be talking \$3.50, plus \$9.76,
L3	roughly 13 and a quarter; is that correct?
L4	A Yes.
15	Q Now, would you turn to the answer to
16	Interrogatory No. 9 in that same package. And according
17	to this interrogatory answer, which is using Southern
18	Bell's Loop Is A Loop Study, is it correct that the
19	incremental cost of providing basic residential service
20	in Florida is \$18.73?
21	A That's what it says, sir, yes.
22	Q And if you turn to the next page, would you
23	agree with me that the cost of business services is ten
24	cents less. \$18.63?

25

A

Yes.

1	Q And in both cases, that cost includes both the
2	loop and the associated switching and transport
3	necessary to provide the total service; is that correct?
4	A I would think so, sir, the way the question is
5	asked.
6	Q Now, let's turn back to the very first
. 7	interrogatory answer in that package, and does that
8	indicate that in August of '95 when this interrogatory
9	was answered, that BellSouth estimated the average long
10	run incremental monthly cost for local loops in Florida
11	as \$15.97?
12	A I don't know if the study was done, but we've
13	submitted it at that point, yes, sir. The study may be
14	a little older. I think it says on the next response it
15	was a 1994 loop study.
16	Q I see that. Thank you.
17	Now, would you turn to Exhibit 11, which was
18	the backup line service tariff filing. And if you would
19	turn with me to the third page from the end of the
20	document, from the back end.
21	A Page 6 of 8; is that what it says?
22	Q That's correct.
23	A And do you see on Line 2 a monthly cost per
24	loop of \$15.53. Yes.

Do you know why the monthly loop cost for the

backup line service tariff is slightly different from and lower than the estimate contained in the 1995 interrogatories?

A I don't know, but I can guess that this is a backup service. It requires a primary line. So that could have caused a difference. This appears to be a cost study, or I should say a tariff filing for a unique service called backup service. So that may have had a bearing on the difference.

- Q Does backup service involve the provision of a two-wire voice grade circuit? Do you know?
 - A I don't know.
 - Q All right.

MR. MELSON: Commissioner, I've got one other number I would like you to look at, but it's in the confidential exhibit that staff is going to use. I wonder if I might ask them to identify their exhibits at this point.

MR. HATCH: Mr. Scheye, do you have with you -- there should be three documents. The first one is labeled on the front as RCS-1. It consists of your 12-18-95 deposition transcript, as well as Responses to Staff's First Set of Interrogatories to BellSouth and several responses from MFS's First Set of Interrogatories to BellSouth. Do you have that?

1 WITNESS SCHEYE: Yes, sir, I believe I have 2 those. 3 MR. HATCH: Have you had a chance to review Is everything in that document true and correct 4 5 to the best of your knowledge and belief? 6 WITNESS SCHEYE: Yes, sir, it is. 7 MR. HATCH: Madam Chairman, could we have that marked for identification, please? 8 9 CHAIRMAN CLARK: The interrogatories listed in Staff Exhibit RCS-1 will be identified as Exhibit 14. 10 11 (Exhibit No. 14 marked for identification.) MR. HATCH: Mr. Scheye, do you have before you 12 13 the second document, I think it's RCS-2. It is your 14 January 5th, 1996 transcript? 15 WITNESS SCHEYE: Yes, sir. 16 MR. HATCH: Everything in there true and 17 correct to the best of your knowledge and belief? 18 WITNESS SCHEYE: Yes, sir. 19 MR. HATCH: Could we have that marked please? 20 CHAIRMAN CLARK: That will be marked as 21 Exhibit 15, and that's the deposition taken January 5th, 1996. 22 23 MR. HATCH: And the third document, Mr. Scheye, is a confidential document, and it consists 25 of Staff's First Request for Production, Nos. 4 and 5.

1 Do you that have that document? 2 WITNESS SCHEYE: Yes, sir. MR. HATCH: Is everything in there true and 3 4 correct to the best of your knowledge and belief? 5 WITNESS SCHEYE: Yes. 6 MR. HATCH: Madam Chairman, could we have that 7 marked for identification, please? 8 CHAIRMAN CLARK: The confidential exhibit consisting of BellSouth's Responses to Staff's Request for Production of Documents 4 and 5 will be marked as 10 11 Exhibit 16. 12 (Exhibit Nos. 15 and 16 marked for identification.) 14 (By Mr. Melson) Mr. Scheye, if you could turn in the confidential exhibit to the unbundled exchange access loop cost study. Do you have that in front of you? That's in Exhibit 16. 17 18 A What page do you want me to turn to? 19 CHAIRMAN CLARK: Could we get a page number? 20 MR. MELSON: It's bates page No. 15. 21 not have mine in exactly the same order as yours. 22 MR. MELSON: Page 15 is a table of contents. 23 CHAIRMAN CLARK: Right. 24 WITNESS SCHEYE: Unbundled exchange access loop table of contents?

(By Mr. Melson) Yes, sir. I really need you Q 1 to be on the next page. If you'd turn one more page. 2 I'm there. 3 It's entitled, in the upper right-hand corner, 4 work paper 1, Page 1 of 12. 5 Mine says 1 of 2. 6 A 7 I'm sorry 1 of 2. When you get to be this age Q you can't read. Would you agree that the cost, monthly 8 cost figure shown on the first line, E7.5.3A(a) is what BellSouth is now representing as the monthly cost of an 10 unbundled local loop? 11 I'm sorry, you lost me again on -- where am I 12 Α supposed --13 Q The first line, the first column. 14 Under monthly cost? 15 Α Yes. I don't want you to say the number out 16 Q 17 loud. I know you don't. Is that local channel, 18 voice grade unbundled exchange access loop, two-wire; is 19 that correct? 20 Yes, sir. 21 Q Yes, I have that number and I won't state it. 22 23 Would you agree with me that that number is Q higher than the local loop cost shown either in your

backup study tariff filing or in the interrogatory

answer that we just looked at? 1 2 Yes, I would agree with that. 3 And the number we're looking at on the 4 confidential document is an average cost; is that correct? To the best of my knowledge it is, yes. 5 6 In fact, the cost to the local loop varies by 7 distance; is that correct? It can probably, depending on what kind of 8 Α 9 technology is being used. 10 I would like you to turn to Page C-1 of this confidential document, which is --11 12 Α Page C-1? 13 Yes, bate stamp No. 214. Q 14 Α I have it. 15 Are you with me now? Q 16 A I am. Yes, sir. 17 And does the last column -- well, the first column of that identifies a number of bands. The second 19 column identifies the loop distance in thousands of feet; is that correct? 21 I'll accept your word that that's in thousands 22 of feet. It just says distance. It says distance in the numbers --23 Q 24 A I'm sorry. Yes, you're right. Yes, sir. And then the last column is the monthly cost 25 Q

associated with each band; is that correct? 1 2 Α Yes. And would you agree with me -- and would you 3 agree with me that for copper facilities, the monthly 4 5 cost shown for each of the first 12 bands, bands 1 6 through band 12, is lower than the average monthly cost 7 that we saw back on the earlier page of the document? 8 Yes, it is. Α 9 And above band 12 there's no band-by-band breakdown; is that correct? 11 A Right, correct. 12 And then we see the last band, the cost is 13 higher than the average? Α 14 Yes. 15 It is impossible to tell from the summary, is it not, where the break -- well, at what length the cost 17 of the loop equals the overall average cost; is that 18 true? 19 Α I can't tell. Maybe someone else could. 20 Q And the -- no more ands. That was it. Last 21 question. Thank you, Mr. Scheye. 22 CHAIRMAN CLARK: Mr. Tye? MR. TYE: 23 I have just a few, Madam Chairman. 24 CROSS-EXAMINATION 25 BY MR. TYE:

1 Mr. Scheye, in your direct testimony that was 2 filed on November 27th with respect to the MFS petition, over on Page 14, Lines 1 through 3, you say, "Consistent 3 with revised Chapter 364, ALECs will be able to resell 5 the Company's currently available local exchange message and measured rate services." Are you familiar with 6 that? 7 8 Α Yes, sir. 9 Let me hand you a document, ask you if you can identify it for us. 10 11 (Pause) 12 MR. TYE: Madam Chairman, could I ask that this document be marked for identification as, I 13 believe, Exhibit 16 -- or excuse me, Exhibit 17. 15 CHAIRMAN CLARK: Yes, the document entitled basic local exchange service, it's a tariff filing effective February 17th, 1994 for BellSouth, will be 17 marked as Exhibit 17. 19 (Exhibit No. 17 marked for identification.) 20 Q (By Mr. Tye) Mr. Scheye, the document you've 21 been handed is a document from Southern Bell's intrastate tariff; is it not? 22 23 A Yes, it is. 24 Would you look with me at Section A3.5, which is message rate service. Are those the services that 25

you indicate in your testimony are currently available for resale? Yes, sir. I didn't say -- I don't believe in 3 Α my testimony I said they were available for resale. said they would be available for resale. 5 I'm sorry, that is correct. Now these 6 services have both a monthly recurring charge and then a 7 usage charge; is that correct? 8 Α Yes. 9 And would you turn over to the second page of 10 Exhibit 17 and look specifically at the section of the 11 tariff that's A3.52? 13 Yes, sir. Now, the rates that are shown in subsection A 14 there are the monthly rates; is that correct? 15 Yes, they are. 16 Now, rate group 12; is that the largest rate 17 group you have? 18 19 Α Yes, apparently. And that would be, say, Miami? 20 Q I believe so. 21 What's your local rate, your regular 22 residential flat local rate in that area? Do you know? 23 No, but can I look on this exhibit? 24 Α Yeah, if it's in here. 25 Q

Is it \$29.10? No, that's business. 1 A 2 sorry. Let's go back and talk about the exhibit for a 3 A resident -- well, an ALEC, I guess, that wanted to resell this service in Miami would have to pay 5 you \$6.39 a month as a non- -- excuse me, as a monthly 6 recurring charge, and then would also have to pay you 7 ten cents a minute; is that correct? 8 No, sir, that's not correct. 9 Maybe I'm misreading the tariff. 10 I believe that ten cents you're referring 11 to -- if I'm reading this correctly, and I'm not that 12 familiar, but it says you get a 30-call allowance, and 13 then the remaining price. I think the ten cents applies to each message. 15 Each message, okay. 16 After the 30. 17 Do you have any studies to indicate what the 18 Q average number of messages per access line per month is 19 in Florida? 20 21

No, sir.

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Did you do any studies like that when you put this tariff together?

I didn't put this tariff together, sir. can't speak for the people that did.

1	Q Okay. With respect to a business customer,
2	the business customer is shown on the next page; is tha
3	correct?
4	A Yes.
5	Q And the business customer in rate group 12
6	would pay you \$21.69 a month, plus 12 cents per message
7	for every message over the allowance; is that correct?
8	A Yes, and I believe there's a 75 message
9	allowance in that case.
10	Q Now I'm sorry, I didn't mean to cut you
11	off.
12	A That's okay, sir.
13	Q If an ALEC desired to resell your local
14	service, these are the rates that you would quote the
15	ALEC; is that correct?
16	A Yes.
17	MR. TYE: Thank you, sir. I have no further
18	questions.
19	CHAIRMAN CLARK: Mr. Self?
20	MR. SELF: Thank you.
21	CROSS-EXAMINATION
22	BY MR. SELF:
23	Q Mr. Scheye, I'm Floyd Self for LDDS WorldCom.
24	Just a couple of quick questions. With respect to the
25	unbundling requests that have been made of BellSouth, i

each request exactly the same as every other request 2 that's been made? Sir, could you help, maybe you could clarify a 3 little bit. When you say a request made of BellSouth, 4 could you tell me in what form you're referring, or how 5 you believe those requests have been made? 6 7 In whatever form they've been made. In other 0 8 words, is everyone requesting exactly the same as 9 everyone else? 10 Oh, no, sir, not at least in the discussions 11 I've had with them. 12 And I believe at Pages 8 and 9 of your Q 13 testimony you propose that the unbundled ports be offered on a measured basis and that the rate that 14 15 you're proposing for that would be the same as the STS rate; is that correct? 16 17 A That is correct. 18 Q Is the STS usage rate priced above cost? 19 Α To the best of my knowledge, it is. 20 Q Do you know to what extent it's priced above 21 cost? No, sir, I don't. 22 A 23 MR. SELF: That's all I have. Thank you. 24 CHAIRMAN CLARK: Mr. Fincher? 25 MR. FINCHER: No questions.

CHAIRMAN CLARK: Mr. Falvey

CROSS-EXAMINATION

BY MR. FALVEY:

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Q I have a few questions. My name is Jim Falvey on behalf of Metropolitan Fiber Systems of Florida.

What kind of a schedule has BellSouth established to determine the economic and technical feasibility of providing the elements requested by MFS?

A I don't have a specific schedule unique to MFS, sir. If you -- we believe in our initial offering we have taken care of essentially everything that has been requested of us on an unbundled basis.

Q And as to those elements that you did not address in your initial offering, is the plan that you'll just get to the requests when you'll get to them?

A No, sir. I mean -- and let me elaborate a little bit, and this is a little bit off the point, and if I get off the point, please, rein me in if you will. If it's acceptable, I will -- some carriers, and I won't name them, have indicated to us in the negotiation process that concentration would be something that they would require or request that BellSouth provide of them. BellSouth does not believe that that is really an unbundling request, because the nature of the concentration is a unique piece of gear that would have

to be housed in our office through some mechanism. So it doesn't really meet the terminology of unbundling.

However, BellSouth undertook a unique study to look at the technical capabilities of providing a concentration gear. As a matter of fact, BellSouth looked into a particular type of concentrator that was requested of us. We do not currently use that type of concentration. We went back to the vendors to get the cost of that piece of gear, and as a matter of fact, and I believe as Mr. Devine indicated earlier, we've actually quoted a price, to the MFS at least, about tentatively offering that. Now I will not say that we've fully explored every aspect of the provision of that capability. But I think that's indicative of BellSouth's willingness to work with the various alternate carriers to meet their needs as they are made of us.

Q Is it fair to say that you have no schedule for -- or internal deadline for determining what the economic and technical feasibility of providing the requested elements is?

A As I said, sir, I believe we can currently offer all the requested elements. So we don't have a schedule because, to date, no one has provided me a request for service that we do not anticipate offering

under unbundled capabilities. 1 Is it possible for ALECs to purchase loops 2 Q 3 without the resolution of operational issues? I'm sorry, could you repeat it? 4 Is it possible for an ALEC to purchase loops 5 without the resolution of operational issues? 6 7 A Yes, sir, it is. 8 Q Well, if we haven't established what process 9 you would go through in order to order loops, how could you order loops? 11 A We have a process in place for ordering loops, 12 sir. 13 Have you brought the ALECs in on what that Q 14 process is? Sir, that process has been in place for 15 approximately ten years. It is not a new process. 16 17 is available to any carrier. It has been used by any number of carriers. So I don't know that I had to 18 19 divulge it uniquely to them. 20 We may be talking about different types of 21 operational issues. We'll see. Do you have your 22 prehearing statement in front of you, December 11th in

24 A No, sir, I don't.

this docket?

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Q If you could just read the first sentence of

your position in response to Issue No. 4.

A Issue 4 was, "What arrangements, if any, are necessary to address other operational issues?"

"Position: It is premature for the Commission to address operational issues."

- Q So my understanding, your position then is that operational issues don't need to be addressed at this time?
- A Sir, you just asked -- no, I didn't say that at all. I think there are a huge number of operational issues that do need to be worked out between BellSouth. You asked me about the operational issues for local loop. That statement deals with 20 or 30 items, maybe more. So it's not unique to the local loop.
- Q So I guess the question then is, is it possible to purchase and utilize loops on an ongoing basis without addressing these operational issues?
- A If your statement, as I understand it, is a local loop, the answer to that is absolutely yes, because all those operational procedures are already in place. As a matter of fact, we have carriers today buying unbundled loops from us daily, and it must be working.
 - Q Those are special access loops?
 - A Yes, sir, or private line, as may be in the

1	states.
2	Q Is if fair to say that a special access line
3	would not work for providing dial tone service?
4	A No, sir. It will work.
5	Q Does BellSouth support the concept of local
6	exchange competition?
7	A Yes, sir.
8	MR. FALVEY: I have one exhibit which was
9	produced in response to MFS's first data request or
10	document request, No. 4. It's not proprietary and I
11	would like to distribute it.
12	(Pause)
13	Q So your answer, you said that it is not fair
14	to say that a special access line would not work for
15	providing dial tone line?
16	A No, sir. They're being used today to provide
17	dial tone, so there's no reason in the future they won't
18	be able to
19	Q Could you turn to I'm sorry.
20.	A I said they are today, so there's no reason to
21	think in the future they won't be available or able to
22	do the same thing.
23	Q Could you turn to what's marked as bates Page
24	24, bate stamp
25	CHAIRMAN CLARK: Mr. Falvey, let's identify it

as an exhibit and tell me what -- it is a production of 1 document response, right? 2 That's right. 3 MR. FALVEY: CHAIRMAN CLARK: Can you give me the number? 4 MR. FALVEY: Yes, gladly. MFS's First 5 Document Request, Item No. 4, the Response to Item No. 6 7 4. And --CHAIRMAN CLARK: Okay, it's Exhibit 18 will be 8 MFS's -- it will be BellSouth's Response to MFS document Request No. 4 contained in its first production of 10 documents. 11 MR. FALVEY: That's correct. 12 MR. LACKEY: Madam Chairman, could I have just 13 a moment, please? Mr. Falvey said this wasn't 14 proprietary, but I'm having a bit of a problem here. just want to check. 16 CHAIRMAN CLARK: We'll take a break until five 17 minutes after 4:00. MR. LACKEY: Appreciate that. 19 20 (Recess from 3:50 p.m. until 4:10 p.m.) 21 CHAIRMAN CLARK: Call the hearing back to 22 order. 23 MR. LACKEY: Madam Chairman, I would like to The document is not apologize. I overreacted. proprietary. At least I can say I provided some comic

relief. 1 CHAIRMAN CLARK: All right, the document 2 previously identified as Exhibit 18 is not a 3 confidential document and it will be marked as 18 for 4 identification. 5 Go ahead, Mr. Falvey. 6 (Exhibit No. 18 marked for identification.) 7 (By Mr. Falvey) I'm going to repeat the last 8 9 question just so we can pick up where we left off. Is it fair to say that a special access line 10 would not work for providing dial tone? 11 No, that is not correct. 12 If you could turn to Page 24, if you haven't 13 already, bate stamp Page 24. And the last full paragraph, if you could just read back the first 15 sentence of that last full paragraph. 16 The last sentence? 17 Α No, rather the first sentence. 18 19 "In a recent RUIN-IT (resale, unbundling, 20 interconnect, negotiations-implementation team) meeting, it was stated" --21 22 CHAIRMAN CLARK: Mr. Scheye, I'm having difficulty hearing you. I can hear everybody else, but I don't hear you too well. 24

WITNESS SCHEYE:

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CHAIRMAN CLARK: Start again, please. 1 2 WITNESS SCHEYE: Try again. Is that better? 3 Is this on? I don't think it's on. CHAIRMAN CLARK: He says it's on. Go ahead. 4 5 WITNESS SCHEYE: I'll speak louder. 6 recent RUIN-IT (resale, unbundling, interconnect, 7 negotiations-implementation team) meeting, it was stated that a special access line would not work for providing 8 dial tone." 9 10 CHAIRMAN CLARK: Is this somebody's idea of a 11 joke, the acronym? 12 MR. FALVEY: I was actually going to ask him 13 about that, speaking of comic relief. 14 (By Mr. Falvey) I mean, is it correct that Q the team, the implementation team, for the issues that we've been dealing with yesterday and today, the acronym 16 17 is called RUIN-IT? Yes, as it's spelled out here, sir. 18 Α 19 But you did answer the question previously Q 20 that BellSouth supports local exchange competition? 21 Yes, we do. 22 Q Okay. 23 Are you taking exception with the acronym or 24 our policy? CHAIRMAN CLARK: Is the acronym your policy? 25

MR. FALVEY: I have no further questions, actually.

WITNESS SCHEYE: Our expertise is more in the telecommunications business than it is in the acronymcreation business.

CHAIRMAN CLARK: Some people might dispute that.

WITNESS SCHEYE: If somebody thinks we're
better at acronyms --

MR. FALVEY: I think I'm all done, speaking of comic relief. That was my last question.

WITNESS SCHEYE: Maybe I ought to explain the differential, then, between what this statement says and my previous statement. If you note, this letter was dated July 28th, 1995. My statement was made today, about seven months later. When I saw or heard about this response, I asked this team, or members of this team, to simply revisit the issue. As it turned out, what they were looking at was a very, very, very technically detailed assessment, and since that time have determined that this letter is in fact incorrect. So that therefore the statement in here, while correct based on the gentleman who wrote it, as of July 28th, 1995, is no longer true, and it is not BellSouth's position, rather the position I stated earlier is

BellSouth's position.

Further -- can I continue?

MR. FALVEY: Absolutely.

WITNESS SCHEYE: Further, to show you the diversity of capability, today we talk about wire line loops provided by BellSouth, and they can provide dial tone and local service. In the future, we've talked earlier today, that capable companies may be able to use their facilities to provide dial tone capability. And thirdly, and most interesting possibly, is MCI Metro has indicated publicly that they have signed a deal with Windstar, PCS, a wireless provider, and that they will use wireless capability to provide switched local exchange service to both residence and business service, initially in the city of Atlanta, but then nationally.

So I think that indicates to you, sir, that -a couple things: One, a loop provided by BellSouth is
not the only source; secondly, and maybe more to the
point of your question, the capabilities required to
provide dial tone local service can be quite diverse and
still the service that would be considered local
exchange service.

Q (By Mr. Falvey) So is it fair to say then that what you're saying is that once it became clear that the corporate position -- as it says here, and why

don't I read off here -- "The corporate position on unbundling local loops is that these loops are available today from the special access tariff." When that became clear to the technical people who had said that it would not work, they were given instruction to come back with a better answer?

A No, sir, that's not true, and that's not what I said. What I said was, if I could repeat it, it is BellSouth's position then, and it was now, that we should try to use services already available and already tariffed, special access, as I said, for the loop. When this letter was written, or this determination made, I simply asked that they go revisit that, because if this was true, in fact, we would have changed our position, absolutely and said, if a special access line won't provide dial tone service, then it doesn't meet the requirements of an unbundled loop, and we would have had to come up with a different service. The reason we could maintain our position was because, in fact, this position has changed as reflected in this letter.

- Q When the position changed, did you change the acronym also?
 - A No, sir. The acronym actually still exists.
 - Q Okay, that's my final question.
 - A Our acronym committee doesn't meet all the --

only once a year, so you stick with these acronyms for a while.

MR. FALVEY: No further questions.

MS. WILSON: Chairman Clark, I need to ask two clarifying questions.

CHAIRMAN CLARK: Go ahead.

CROSS-EXAMINATION

BY MS. WILSON:

Q Mr. Scheye, I just wanted to ask you a couple questions. I'm trying to put together your testimony from yesterday and a statement in your summary today. Today you seem to say in your summary, I believe, that ALECs could purchase unbundled loops and ports from BellSouth. And I was just wanting to clarify. If I'm an ALEC and I don't own facilities to a customer, can I purchase an unbundled loop and an unbundled port from BellSouth?

A You can purchase an unbundled loop and you can purchase an unbundled port. However, as suggested earlier today, if you desire the bundled version of a loop and a port, in other words you want to provide the complete dial tone service, then you would purchase message rate services in the rate group depicted in the tariffs earlier. So you can essentially buy that capability through reselling our local exchange message

rate offering. In doing that, you would also get 911 1 2 capability, directory listing capability, et cetera. COMMISSIONER GARCIA: Didn't you just say the 3 simple loop provides dial tone? 4 5 WITNESS SCHEYE: Beg your pardon? 6 COMMISSIONER GARCIA: I thought you stated in 7 the previous questions that with the simple loop you can provide dial tone. 8 9 WITNESS SCHEYE: Mr. Falvey's question was if he purchased the special access loop from me, could it 10 be used for dial tone purposes? And I said, yes, it can 11 That would be -- presumably he would buy the loop 12 from me and connect that to his own switch or his 13 company switch. 14 15 MS. WILSON: That's all I have. 16 MR. MELSON: Commissioner Clark, I would like 17 to ask one or two additional questions, something that -- an answer that came out in response to a 19 question from Mr. Falvey, if I heard it correctly, seems to me to be inconsistent with something in the prefiled and I would like to clarify it. 21 22 CHAIRMAN CLARK: Go ahead. 23 FURTHER CROSS EXAMINATION BY MR. MELSON: 24

Did I understand, Mr. Scheye, that you

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Q

indicated that Southern Bell, after receiving a request from MFS for loop concentration, in fact went out, explored that and has offered loop concentration to MFS?

A Sir, I think what I said, to be a little more explicit, is when I got a request from a carrier -- and I did not indicate which carrier, because we do not reveal who we receive information from -- that we investigated that, and that I provided prices for that type of capability on a standalone basis to MFS.

Q All right. You say on Page 15 of your direct at Line 3, "BellSouth does not intend to offer loop concentration." And I guess I'm trying to figure out whether you quote a price for something you don't intend to offer or just how you reconcile those two.

A That's very simple, sir. I think the context of that discussion is unbundling, and as I mentioned in my response, the unbundling capability for which the price was quoted is not an unbundling capability. It is a standalone piece of hardware. I think Mr. Devine said it was about the size of an air conditioning unit that would be installed in a central office, or an office, or location, dedicated to that particular carrier for their use. So that is not an unbundling capability.

Secondly, and additionally, as we have said many times, we have attempted and have successfully negotiated

packages with several carriers. And in the context of that is what we were looking at.

Q Let me ask one last question then, is what I'm hearing you say that in the context of negotiations you will offer it, but it's your position that because it is not, quote, "unbundling," the Commission cannot require you to offer it?

A No, sir. First of all, I didn't say that I told someone I would offer it. They had asked me to investigate it. I quoted them a price for what I thought it would be available. There's been no firm request of me to offer it. I told them I would investigate it. As far as I've gotten is to determine roughly what the price would be. I also mentioned that we're still looking at the technical situation and capabilities that would be required. This is a new piece of gear for us. We don't use this today. I don't have methods and procedures for providing this today. I don't know all the implications of it. So before I can offer it to you or to MFS or anyone else, I would have to have that worked out.

Q Okay, I guess when I go to a car dealer and they quote me a price, I assume they're offering to sell me to the car. Thank you.

A Just in the same vein that I'm not an acronym

company, I'm not a car dealer either. Hopefully we're a 1 little more honest than most of the car dealers. 2 CHAIRMAN CLARK: Staff? 3 MR. HATCH: Just a few questions. 4 CROSS-EXAMINATION 5 BY MR. HATCH: 6 Mr. Scheye, is it your testimony that a 7 special access is essentially the functional equivalent 8 of what would otherwise be a local loop? The local channel component of a special 10 access service is, yes, sir. 11 When you say local loop, there are lots of 12 things that are generally bundled into that term, are 13 there not? For example, an R1 and B1? 14 Those are pricing type distinctions. 15 not so much dealing with the technical capability of a 17 loop. There are no technical differences, there are 18 19 just pricing differences? Yes, sir. 20 Α What about a PBX trunk? 21 22 Same sort of situation. There are no real technical differences, 23 simply pricing ones? Predominantly pricing. I think a PBX trunk 25 Α

typically has more usage on it than a business line or a residence line.

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Q Do you know if BellSouth has used special access lines for provisioning residential service, basic residential service?

As I said, they're functionally equivalent. So we don't use the process by which someone orders a special access line to provision it. To give you a -maybe an easier or a more simple comparison, several years ago -- and WATS service was a fairly general offering in which an interexchange carrier such as AT&T or MCI would provide a dedicated service from a customer's premises to the BellSouth switch. And their pricing technique was that it was different than their long distance services. I won't go into what WATS service is. That service, the line that BellSouth provided, was functionally equivalent to a local exchange service and it was connected to the switch in the same manner as the local service. But AT&T or MCI would purchase that as a special access line.

Q As I recall, those dedicated WATS access lines, those were directional, were they not, one way?

A They could be one way or both ways, at the option the carrier, sir.

Q They were priced something around 30, 32, 34

bucks a month? 1 You're probably talking about AT&T's price or 2 MCI's price. Our price was the special access price. 3 Are you familiar with the D4 channel bank? Q 4 Only in name. Not --5 Α Is that a loop concentration device? Q 6 I don't believe it is, sir. 7 Α Why would you say that it is not? 8 Q I'm not that familiar enough with it to -- I 9 Α have not heard the term "concentration equipment" 10 associated with the D4 channel bank. 11 Is the D4 channel bank a common piece of 12 central office equipment? 13 Yes, it's my understanding it is. 14 I believe in your testimony you refer to 15 Q subscriber loop carrier; do you not? 16 I may. I don't recall, but I'll --17 Α Let me refer you to --18 19 Α That's fine. I'll accept that. How would you characterize or distinguish 20 subscriber loop carrier as compared to subscriber -- or 21 loop concentration? 22 23 I think, as discussed even earlier today, a SLC, or subscriber loop carrier, was a form, or is a

form, of concentration. And I think, if I can, because

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earlier today there seems to be some confusion about what we will and won't offer. The SLC type of technology, which is out in the plant, if a customer, a carrier, were to purchase an unbundled loop, it may in fact go through the SLC before it got to our office. The concentration equipment we were just talking about earlier is a standalone piece of gear dedicated to that carrier for their purpose so that they can further concentrate it and then transport it to their own switch.

Q Your subscriber loop carrier, that sort of concentration equipment, where does that generally appear in your network?

A Apparently it can -- and again, you're beyond my network capabilities. It could be in various places. It could be in the office, but it could be actually out in the distribution plant, somewheres between the office and the premises.

Q I believe in your testimony you state that loop concentration does not meet, as it's being proposed to you, does not meet the criteria for network unbundling under Chapter 364; is that what you're testifying?

A Yes, because the nature of the concentration, as requested of me at least, has been this more

standalone item that a carrier, MFS or MCI, or anyone else for that matter, would be able to take, for example, 96 unbundled loops into an office, run it through that concentrator, and that coming out the other side might be 24 or 48 lines, which they could then transport to their own switch. So that's outside of our network, and it doesn't happen to be a piece of gear that we currently use.

- Q When you say the criteria for network unbundling, what criteria are you referring to?
- A Basically the definition that says that unbundling -- requirement of unbundling is to take capabilities that are in one form or another bundled today, break them apart into some sort of components and offer them on a standalone basis.
- Q Are you referring to that piece, the statutory piece of 364.161, subsection 1; is that the section you're referring to?
- A I don't have it in front of me, sir, but I'll accept that.
 - Q Would you accept that subject to check?
- A Yes, sir, I will.

Q I believe that section says -- subject to check, and correct me if I'm wrong, if there's any question -- "Upon request, each local exchange

telecommunication company shall unbundle all of its network features, functions and capabilities, including signaling databases, systems routing processes," and that sort of thing?

A That's exactly what I was trying to get to, and we accept that definition. We don't have any problem with that. The type of concentration being requested is not within our current network. It's a piece of hardware, if you will, that we don't use, that would have to be purchased by us, put into some location by us, maintained by us, and then provided to the other carriers. That's exactly the point I was trying to get to, sir. It's not really unbundling by that definition.

Q What is your definition of a network capability?

A Switching, loops, 911 capabilities, actually database type capabilities, such as line information database, those type of things.

- Q How would you define a network feature?
- A Same way. I don't know that I would distinguish.
- Q What about a network function, as different from the other two?
 - A As different from what, sir?
 - Q As different from network capability and

That was

network feature? 1 2 I would use them probably interchangeably. 3 You would use all three of those terms interchangeably? 4 5 Yes, sir. Were you listening in or present for 6 Mr. Devine's deposition on December the 15th of 1995? 7 8 Are you familiar with that, his deposition? 9 I wasn't present, sir, no. 10 Were you listening in? I think it was a telephonic deposition, if I'm not mistaken. 11 12 No, sir, I wasn't, or didn't listen in. don't believe so. To the best of my knowledge, I did 14 not. 15 That's fine. Do -- he makes the statement in 16 that deposition, on Page 24 of his deposition, that BellSouth has provided a proposal for loop concentration 17 18 in Georgia. 19 I think that was what we were discussing Yes. I quoted a price that we thought, or about a 20 earlier. 21 price that we could provide that capability as they had 22 requested of us.

Sir, let me just -- one other point.

merely a request that Mr. Devine had made of me in the

not under the scope of unbundling though.

23

25

negotiation process. I said I would look into it. I had people do that and quoted him back the information. He has every bit of information about that as I do.

Q A price is not an offer, nor is it necessarily unbundling, essentially; is that correct?

A Yes, sir, that's correct. I couldn't offer it to him because I don't really have all the technical questions answered about how we would operate it, maintain it, and what have you, and it is beyond the scope of the definition of unbundling.

Q How would you define arbitrage?

A Providing two services that are essentially or functionally the same at two different prices, tariff shopping, another term for it.

Q To the extent that you have facilities now, or services now, such as R1s, B1s, PBX trunks and special access lines, those are all, as I recall you saying, functionally equivalent, yet they are priced differently; is that correct?

A I wouldn't say they're all functional equivalents. An R1 and B1 are both local exchange services and are functionally equivalent. Due to policy, public policy, carrier of last resort type reasons, they're priced differently. A special access line by itself is just the loop portion of that. It

wouldn't be the whole service. It would be a portion of the overall service, but it wouldn't be a functional equivalent by itself of a local exchange service.

- Q I thought it was your testimony earlier that all of those, an R1 line, B1 line, PBX trunk and a special access line, are all functionally equivalent?
- A No, sir. What I said -- I believe I said, or intended to say, was that -- to the question, could you use a special access line to provide dial tone or local exchange service? And the answer is yes, you can. Now you would have to combine it with switching capability. If you want to create a full local exchange service, you have to have 911 capability, intercept capability, listing capability, et cetera. And I'm saying that's the component which would provide the loop piece of an overall or much broader service that we call local exchange.
- Q Set aside special access for the moment, then. Even under your definition, R1, B1 and PBX trunk are functionally equivalent; are they not?
 - A Yes, I would say they were.
 - Q But they're all priced different?
- A Yes, for public policy reasons. I mean, right now we're not allowed to rebalance those to create identical rates for those services.

~ 4

Q And as I understand your argument regarding arbitrage, that pricing special access loops below the current, or pricing the unbundled local loop below current special access rates encourages arbitrage; is that correct?

A Yes, sir, because then you would be providing a loop, some item, which is a functional equivalent to a special access line at a -- which is -- would be functionally equivalent at two different prices, and that would meet the definition of arbitrage.

Q Can we fix your arbitrage problem by creating user restrictions in the tariffs for unbundled local loops?

A That's been tried in the past. We would prefer to avoid those types of things as we move forward in the competitive environment. It is very difficult to administer those types of things. They can be quite expensive. The parties end up debating each other about those types of things. So while it might work, it is not a particularly appealing method because it's very, very difficult to administer and will become more difficult.

Q There are current user restrictions in the access tariffs; are there not?

A In the access tariff? I would doubt it. If

there are, I'm not aware of them. Florida Switched Access tariff, you're not 2 Q aware of any user restrictions? 3 I'm not that familiar -- I'm more familiar 4 with the interstate switched access tariff, and there 5 are no user restrictions in it. If there are any in the Florida switched access tariff -- I'm not saying, sir, 7 there are not. I'm just not aware of them. 8 MR. HATCH: That's all we've got. Thank you, 9 Dr. Scheye. 10 CHAIRMAN CLARK: Commissioners? Redirect? 11 MR. LACKEY: Thank you. 12 REDIRECT EXAMINATION 13 BY MR. LACKEY: 14 Mr. Scheye, do you still have Exhibit 11 and 15 Exhibit 12 there with you? 16 Yes, sir, I do. 17 A Do you remember Mr. Melson asking you about 18 Q these exhibits? 19 Yes, I do. 20 Α He turned you to, I believe, the third page 21 from the back of Exhibit 11 and pointed out a number --22 I think it's \$15.53, to you. Did you see that? 23 Was that the one with the interrogatories? 24 A 25 Which was which?

- Exhibit 11. 1 0 2 I'm sorry. Mr. Melson just pointed me in the A right direction. Yes, sir, I have. 3 You see the 15.53? Q 4 I don't see it, but I recall it. 5 And on Exhibit 12, you remember he pointed you 6 7 to a number of \$15.97 which is the estimated average long run incremental monthly cost for local loops in 8 Florida? 9 10 Right. Α 11 Now on the page that he referred you to, was 12 there any particular description of the loop that the \$15.53 related to? 13 14 Yes, sir. It says it's only business lines. 15 Is the \$15.97 in the -- in Exhibit 12 only 16 business -- business lines? 17 No, sir. It says average long run incremental 18 for local loop. So I would assume that's both residence and business. 19 20 And you told us, I believe, that the numbers, 21 or the data in Exhibit 12, came from the 1994 Loop Is A Loop Study? 22 23 Yes, sir, that's in the next interrogatory. A
- Q Do you remember that Mr. Melson handed you a
- 25 confidential proprietary document and asked you to look

1	at a number which shall remain unmentioned?
2	A Yes.
3	Q And he asked you to agree that it was higher?
4	A Yes, and it was, and still is.
5	Q Do you happen to know what the date was on
6	that information?
7	A I believe it was October 1996, so roughly two
8	years later.
9	Q 1996?
10	A '95, sorry.
11	Q So there appears to be a timing difference
12	between
13	A Yes, there's a substantial timing difference.
14	MR. LACKEY: That's all I have, Madam
15	Chairman. Thank you.
16	MR. MELSON: Commissioner Clark, could I ask
17	one recross on the very next to the last question here?
18	CHAIRMAN CLARK: Go ahead, Mr. Melson.
19	RECROSS EXAMINATION
20	BY MR. MELSON:
21	Q Do you know whether the work sheets supporting
22	the number that we're not going to talk about are dated
23	at an earlier date, and whether that date corresponds to
24	the same date on the work papers in the Loop Is A Loop
25	Cost Study?

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No, I don't know.
 1
 2
              MR. MELSON: No further questions.
 3
              CHAIRMAN CLARK: Mr. Lackey, do you have a
    follow-up?
 4
 5
              MR. LACKEY: No, ma'am.
              CHAIRMAN CLARK: All right, exhibits.
 6
 7
              MR. LACKEY: I move Exhibit 10.
 8
              CHAIRMAN CLARK: Without objection, Exhibit 10
    will be entered into the record.
 9
              MR. MELSON: MCI Metro moves 11, 12 and 13.
10
11
              CHAIRMAN CLARK:
                               Exhibits 11, 12 and 13 will
   be entered into the record without objection.
12
              MR. HATCH: Staff moves 14, 15 and 16.
13
14
              CHAIRMAN CLARK: 14, 15 and 16 will be
15
   admitted in the record without objection.
16
              MR. TYE: AT&T moves Exhibit 17.
17
              CHAIRMAN CLARK: Exhibit 17 will be entered in
   the record without objection.
19
              MR. FALVEY: MFS moves Exhibit 18.
20
              CHAIRMAN CLARK:
                              Exhibit 18 will be entered in
   the record without objection.
              (Exhibit Nos. 10, 11, 12, 13, 14, 15, 16, 17
22
   and 18 received into evidence.)
24
              CHAIRMAN CLARK: Dr. Banerjee.
25
              MR. CARVER: BellSouth calls Dr. Aniruddha
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Banerjee. 1 ANIRUDDHA BANERJEE 2 was called as a witness on behalf of BellSouth 3 Telecommunications, Inc., and having been duly sworn, testified as follows: 5 DIRECT EXAMINATION 6 BY MR. CARVER: 7 Let me ask you, first of all, you've been 8 Q sworn in? 9 10 I have. Would you please state your name and business 11 address? 12 My name is Aniruddha, or Andy, Banerjee, and 13 my business address is One Main Street, Cambridge, 14 Massachusetts 02142. 15 By whom are you employed and in what capacity? 16 I am an economist employed as a senior 17 consultant by National Economic Research Associates 18 located at the address I just gave you. 19 And you are testifying today on behalf of 20 Q BellSouth; is that correct? 21 A I am. 22 Did you cause to be prefiled in this docket 23 Q direct testimony consisting of 13 pages and one exhibit? 24 25 A I did.

1	Q Did you cause to be prefiled in this docket
2	rebuttal testimony consisting of four pages?
3	A Yes.
4	Q Do you have any changes to your direct
5	testimony or to your rebuttal testimony?
6	A No.
7	Q If I were to ask you today the questions that
8	appear in your direct and rebuttal testimony, would your
9	answers be the same?
10	A Yes.
11	MR. CARVER: Madam Chairman, I request that
12	Dr. Banerjee's direct and rebuttal testimony be inserted
13	into the record as though read.
L4	CHAIRMAN CLARK: The prefiled direct testimony
L5	of Dr. Banerjee will be dated November 27th, 1995,
16	will be inserted in the record as though read. And his
L7	prefiled rebuttal testimony dated December 11th, 1995
18	will also be inserted in the record as though read.
19	MR. CARVER: Could I please have the exhibit
20	attached to his testimony marked for identification?
21	CHAIRMAN CLARK: Exhibit AXB-1 will be marked
22	as Exhibit 19.
23	(Exhibit No. 19 marked for identification.)
24	

1		
2		DIRECT TESTIMONY OF ANIRUDDHA (ANDY) BANERJEE
3		ON BEHALF OF BELLSOUTH TELECOMMUNICATIONS, INC.
4		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
5		DOCKET NO. 950984A-TP (MFS-FL PETITION),
6		AND 950984B-TP (MCIMETRO PETITION)
7		NOVEMBER 27, 1995
8		
9		
10		
11	Q.	Please state your name, address, and place of
12		employment.
13		
14	A.	My name is Aniruddha (Andy) Banerjee. I am a
15		Senior Consultant with National Economic Research
16		Associates, Inc., located at One Main Street,
17		Cambridge, MA 02142.
18		
19	Q.	Please give a brief description of your background
20		and experience.
21		
22	A.	I earned a Bachelor of Arts (with Honors) and a
23		Master of Arts degree in Economics from the
24		University of Delhi, India, in 1975 and 1977
25		respectively. I received a Ph.D. in Agricultural

1	Economics from the Pennsylvania State University in
2	1985. I have over eight years of experience
3	teaching undergraduate and graduate courses in
4	various fields of Economics, and have conducted
5	academic research that has led to publications and
6	conference presentations.
7	
8	Since 1988, I have held various positions in the
9	telecommunications industry. Prior to my present
10	position, I have been an economist in the Market
11	Analysis & Forecasting Division at AT&T
12	Communications in Bedminster, NJ, a Member of
13	Technical Staff at Bell Communications Research in
14	Livingston, NJ, and a Research Economist at
15	BellSouth Telecommunications in Birmingham, AL. Ir
16	these positions, I was responsible for conducting
17	economic and market analysis, building quantitative
18	demand models for telecommunication services,
19	developing economic positions and strategies, and
20	providing expert testimony support on regulatory
21	economic matters. In my present capacity, I
22	provide quantitative and policy analysis for
23	telecommunications industry clients principally on
24	matters of concern to local exchange carriers. My
25	curriculum vitae is attached to this testimony as

Exhibit AXB-1. 1 2 Have you previously filed testimony before this 3 Q. Commission? 4 5 I filed direct and rebuttal testimony on 6 A. behalf of BellSouth Telecommunications, Inc., in 7 Docket 950985-TP (in response to Petition by the 8 Teleport Communications Group) on September 15 and 9 September 29, respectively. 10 11 Please state the purpose of your direct testimony. 12 0. 13 This testimony responds to some of the economic 14 A. 15 issues raised in their testimonies in this Docket 16 by Dr. Nina W. Cornell for MCI Metro Access 17 Transmission Services, Inc. (MCImetro) in Docket No. 950984A-TP and by Mr. Timothy T. Devine for 18 Metropolitan Fiber Systems of Florida, Inc. 19 (MFS-FL) in Docket No. 950984B-TP. In particular, 20 21 it addresses their prescriptions for the pricing of unbundled network services by BellSouth. [Issue # 22 23 3] 24

What do these parties propose for the pricing of

25 Q.

2 ports? 3 Dr. Cornell [at 7] recommends that the prices of 4 A. unbundled elements should be set at their 5 respective total service long run incremental cost 6 (TSLRIC). In contrast, Mr. Devine [at 23] proposes 7 to set prices of unbundled elements at their 8 respective long run incremental cost (LRIC). Both 9 claim that their cost measure (TSLRIC or LRIC) is 10 the "direct economic cost" of a facility or 11 12 service. 13 Please explain the difference between the two cost 14 Q. 15 measures, TSLRIC and LRIC. 16 LRIC measures the additional long run cost that is 17 A. generated whenever an incremental quantity of a 18 service is produced. The increment in question can 19 20 be the next unit (e.g., the next "minute of use" or next call) or a number of units. When the 21 increment is only the next unit of a service, LRIC 22 23 is also called the long run marginal cost. LRIC depends only on the new increment of service that 24 needs to be produced; it bears no relationship to 25

BellSouth's unbundled services like links and

the units of service that may have been produced in 1 2 the past. 3 TSLRIC measures the long run cost of producing a 4 service when the increment in question is the 5 entire volume of that service (i.e. not just the 6 "next" unit of service unless that next unit is all 7 that is produced). Since TSLRIC is the cost of the 8 whole service, it includes not only the costs that 9 vary with the number of units produced but also the 10 service-specific fixed costs without which the 11 service could not be produced in the first place. 12 13 LRIC and TSLRIC differ in the following respects. 14 First, TSLRIC accounts for the cost of producing a 15 service from scratch whereas LRIC does not (except 16 when the "next" unit produced is the very first 17 unit of the service). Second, LRIC excludes 18 service-specific fixed costs while TSLRIC includes 19 The only exception to this rule arises for 20 21 the very first unit of the service, when the TSLRIC and the LRIC coincide. 22 23 What are the economically proper uses of LRIC and 24 Q. 25 TSLRIC?

1	
2 A.	The economically proper use of LRIC is as a price
3	floor, i.e. the lowest level to which the price can
4	fall without violating economic efficiency rules.
5	In fact, in perfectly competitive unregulated
6	markets and in the absence of economies of scale
7	and/or scope, a price equal to LRIC or marginal
8	cost is economically efficient. However, when
9	regulation or market constraints apply or the firm
10	(like BellSouth) experiences economies of scale and
11	scope (the latter due to substantial shared and
12	common costs), services priced exactly at LRIC will
13	fail to recover all the costs of the firm.
14	Therefore, economic efficiency in this
15	"second-best" world requires that all service
16	prices be marked up above their respective LRICs in
17	order that all the common and shared costs also be
18	recovered. There are various ways to mark up those
19	prices; an economically efficient (least
20	welfare-distorting) way to do so is to mark up the
21	price of a service in inverse proportion to its
22	price elasticity of demand. Thus, the least
23	price-electic corvices are marked up most and the

most price-elastic services are marked up least.

The economically proper use of TSLRIC is as a test 1 for cross-subsidy. Since, to remain viable in the 2 long run, a firm's total revenues must cover its 3 total costs, the TSLRIC can be used to detect cross-subsidies as follows. Suppose there are two 5 services X and Y. The customers of service X would 6 be said to be subsidizing the customers of service 7 Y if Y's revenue fell short of its cost but X's 8 revenue exceeded its cost by enough so that the 9 combined revenue from X and Y was at least equal to 10 the combined cost of X and Y. This test can be 11 operationalized by requiring that all services 12 produced by a firm generate enough revenues to 13 cover their respective TSLRICs. Failure of even 14 one service to do so would mean that it would have 15 to be cross-subsidized by the other service(s) 16 before the firm could break even. 17 18 19 It is not economically proper to use the TSLRIC as 20 a price floor. The firm should have the ability and flexibility to charge for the next unit it 21 22 produces only as much as it costs it to produce 23 that unit. As long as, at the overall level of 24 that service, the firm is earning enough to cover the TSLRIC of that service, it should not be 25

constrained from pricing on the basis of LRIC 2 alone. 3 What is your opinion of the pricing prescriptions 4 0. advanced by Dr. Cornell and Mr. Devine? 5 6 Dr. Cornell's prescription of the TSLRIC clearly 7 A. violates its economically proper use. Mr. Devine's 8 prescription - based on the 9 LRIC - is closer to the economically proper pricing 10 principle. However, by insisting that unbundled 11 elements be priced at LRIC, he fails to recognize 12 that (a) LRIC is only a price floor, and (b) 13 14 BellSouth should have the latitude to add contribution to its service LRICs in order to 15 recover its substantial shared and common costs. 16 Otherwise, BellSouth cannot remain a viable firm. 17 18 What is the concern of these parties with including 19 Q. 20 contribution in the prices of unbundled elements? 21 22 A. Dr. Cornell's main concern [at 7] is that "...a 23 price for loops that was greater than TSLRIC would 24 create a price squeeze for entrants." Mr. Devine 25 appears to be reflecting the same concern when he

argues [at 23] that "...(LRIC) should serve as the 1 target price and cap for unbundled loops where such 2 loops must be employed by competitive carriers to 3 compete realistically and practically with the 4 entrenched monopoly service provider, BellSouth." 5 6 Is their concern with price squeeze justified? 7 0. 8 9 A. No, not if economically correct imputation procedures are adopted. The price squeeze can only 10 occur when the monopoly provider of an essential 11 12 wholesale facility or service is also a retail competitor of firms it is supplying the wholesale 13 service to, and the wholesale service is a 14 necessary ingredient of the retail service. 15 example, if loops are available only from BellSouth 16 but alternative local exchange carriers (ALECs) 17 18 need access to those loops (and their customers) in order to sell competitive retail local services, a 19 price squeeze of the type described by Dr. Cornell 20 21 [at 7] could, in principle, occur. However, a 22 simple device for preventing such a squeeze is to 23 require the provider of the unbundled elements to 24 impute the contributions raised from those elements 25 into the prices of their competitive retail local

services. This would ensure that retail 1 competition can go forward on the basis of the 2 relative efficiencies of the competing firms, not 3 on the basis of any unfair advantage available to 4 the provider of the essential facility. 5 6 Couldn't the contributions needed by BellSouth (or 7 Q. any incumbent (LEC) to pay for its "indirect" (i.e. 8 shared and common) costs be raised from its retail 9 services? Why should wholesale services like 10 unbundled loops or ports be required to contribute 11 12 as well? 13 The LEC should have the opportunity and the 14 A. flexibility to raise the requisite contributions 15 16 from any and all of its services. Faced with 17 varying degrees of competition for its different 18 services, it should not be compelled or locked into restrictive formulas or means for raising the 19 20 contribution. Economic theory prescribes that the 21 amount of contribution raised from a service should 22 vary inversely with its price elasticity of demand. 23 If this formula could be applied to all of the LECs 24 services -- wholesale or retail -- the loss of 25 economic efficiency and social welfare that results

1	from pricing above LRIC would be minimized. From
2	society's standpoint, therefore, the proper
3	approach is to raise contributions from wholesale
4	unbundled elements as well, in inverse proportion
5	to their market price elasticities.
6	
7 Q.	Mr. Devine [at 24] proposes that the LRIC
8	methodology only be adopted if (a) the sum of the
9	prices of the unbundled elements is no greater than
10	the price of the bundled service, and (b) the
11	price-LRIC ratio for each element and for the
12	bundled service is the same. Is this proposal
13	sound on economic grounds?
14	
15 A.	Absolutely not. This proposal clearly violates the
16	economically sound pricing principles I have
17	outlined in this testimony.
18	
19	First, requiring that the LECs price of its bundled
20	service not be allowed (by use of regulatory
21	dictate, no doubt) to be below the summed prices of
22	its unbundled parts is only proper when the
23	underlying technology or cost structure is linear
24	or "additive". There are many circumstances when a
25	multiproduct firm can produce two products cheaper

when their production is combined than when it is 1 separated. This happens because the costs that are 2 common to or shared between the different outputs 3 need to be incurred only once when production is combined. If, in the process of bundling, the LEC 5 can achieve these economies relative to providing 6 the piece parts on a standalone basis, then those 7 economies (of "scope") should be made available to 8 consumers in the form of lower prices. 9 context, Mr. Devine's prescription -- cloaked in 10 the language of non-discrimination and fairness --11 should be seen as no more than what it is: an 12 effort to secure a competitive advantage for the 13 ALEC at the expense of the customer or ratepayer. 14 The Commission's prime concern being for the 15 welfare of Florida customers, Mr. Devine's proposal 16 cannot be considered as being anything other than 17 18 self-serving. 19 Second, the requirement that the price-LRIC ratio 20 be equalized across all unbundled parts and the 21 22 bundled service violates the economically efficient 23 pricing principle that I stated before. If, as Mr. 24 Devine also suggests, the price should be set equal 25 to the LRIC, then this requirement would be

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trivially true. However, if that ratio is set in
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       accordance with each service's price elasticity of
 2
       demand, the loss of economic efficiency or social
 3
       welfare that would occur from setting price above
 4
       LRIC would be minimized. Again, there is
 5
 6
       absolutely no economic justification for Mr.
 7
       Devine's bizarre prescription of equalized
 8
       price-LRIC ratios.
 9
10 Q.
       Does this conclude your testimony?
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12 A.
       Yes.
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1	REBUTTAL TESTIMONY OF ANIRUDDHA (ANDY) BANERJEE
2	ON BEHALF OF BELLSOUTH TELECOMMUNICATIONS, INC.
3	BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4	DOCKET NO. 950984B-TP (MCImetro PETITION),
5	DECEMBER 11, 1995
6	
7	
8	
9 Q.	Please state your name, address, and place of
LO	employment.
L1	
12 A.	My name is Aniruddha (Andy) Banerjee. I am a
13	Senior Consultant with National Economic Research
14	Associates, Inc., located at One Main Street,
1 5	Cambridge, MA 02142.
16	
L7 Q.	Please give a brief description of your background
18	and experience.
L 9	
20 A.	I earned a Bachelor of Arts (with Honors) and a
21	Master of Arts degree in Economics from the
22	University of Delhi, India, in 1975 and 1977
23	respectively. I received a Ph.D. in Agricultural
24	Economics from the Pennsylvania State University in
25	1985. I have over eight years of experience

1	: •	teaching undergraduate and graduate courses in
2		various fields of Economics, and have conducted
3		academic research that has led to publications and
4		conference presentations.
5		
6		Since 1988, I have held various positions in the
7		telecommunications industry. Prior to my present
8		position, I have been an economist in the Market
9		Analysis & Forecasting Division at AT&T
10		Communications in Bedminster, NJ, a Member of
11		Technical Staff at Bell Communications Research in
12		Livingston, NJ, and a Research Economist at
13		BellSouth Telecommunications in Birmingham, AL. I
14		these positions, I was responsible for conducting
15		economic and market analysis, building quantitative
16		demand models for telecommunication services,
17		developing economic positions and strategies, and
18		providing expert testimony support on regulatory
19		economic matters. In my present capacity, I
20		provide quantitative and policy analysis for
21		telecommunications industry clients principally on
22		matters of concern to local exchange carriers.
23		
24	Q.	Have you previously filed testimony before this
25		Commission?

1 I filed on behalf of BellSouth 2 A. Yes. Telecommunications, Inc., direct and rebuttal 3 testimony in Docket 950985-TP and direct testimony in 950984A-TP and direct testimony in 950984B-TP. 5 6 What is the purpose of your testimony in this 7 Q. Docket? 8 9 The purpose of my testimony is to respond to and, 10 A. where necessary, show why the positions taken by 11 some of the parties are inconsistent with sound 12 economic principles. In particular, it addresses 13 their prescriptions for the pricing of unbundled 14 network services by BellSouth. [Issue # 3] 15 16 Did the parties raise any additional issues you 17 Q. need to address in their direct testimony filed on 18 November 28, 1995 in response to the Petition filed 19 by MCImetro on November 14, 1995? 20 21 In fact, most simply adopted their previously 22 A. filed testimony by reference; therefore, I adopt by 23 reference and incorporate my direct testimony dated 24 November 27, 1995 and filed with the Florida Public 25

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Service Commission in Docket 950984A-TP.
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3 Q. Does this conclude your testimony?
5 A.
     Yes.
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Q (By Mr. Carver) Dr. Banerjee, could you summarize your testimony, please?

A Yes. Good afternoon, Commissioners. I'm back again to testify on behalf of BellSouth Telecommunications. My present purpose is to help establish appropriate costs and pricing guidelines for economically efficient unbundling by BellSouth of its essential network components. Such unbundling would make available to potential alternative local exchange carriers, or ALECs, like MFS of Florida and MCI Metro, facilities that are considered to be critical for effective local exchange competition.

My principal purpose today is to explain why BellSouth should be allowed to provide unbundled components at prices that are based on, but not necessarily set equal to, their direct economic costs.

In the process I will explain the difference between long run incremental cost, often called LRIC, and total service long run incremental cost, often called TSLRIC, both of which have been proposed by parties in this proceeding as the measure of direct economic costs of an unbundled component. While the average LRIC is the proper price floor in economics, the average TSLRIC is not and should not be used to conduct anything other than tests of cross-subsidy.

•

First, the LRIC measures the additional forward-looking long-run cost that is generated whenever some incremental quantity of a service is produced.

This could be the next unit, for example the next minute of service, or the next number of units.

LRIC depends only on the new incremental service that needs to be produced. It bears no relationship to the units of service that may have been produced in the past.

In contrast, the TSLRIC measures the additional forward-looking long-run economic cost when the increment in question is the entire quantity of the service.

Besides including the costs that vary with the number of units provided off the service, TSLRIC also includes the service-specific fixed costs, without which the service could not have been provided in the first place.

Second, TSLRIC accounts for the cost of providing a service from scratch, whereas LRIC is only concerned with the next increment of service.

Accordingly, LRIC excludes the service-specific fixed costs that appear in the TSLRIC, except only in the case where only one unit of the service is provided.

Third, in economics, the average LRIC is the

economically efficient price floor, or minimum price below which no service may be priced. Under textbook competition and market conditions, textbook conditions, the price would fall to or be set exactly at the average LRIC. However, we don't live in a textbook world. the real world, where we have economies of scale and scope, regulatory restrictions in prices and earnings, other kinds of revenue requirements, a multi-product firm like BellSouth cannot expect to recover all of its common and shared fixed costs, namely its revenue requirements, without receiving proper levels of contribution from its service prices. That is, while based on average LRICs, BellSouth's service prices may be marked up in an economically efficient fashion while minimizing the harm to society that may happen because of above-LRIC prices.

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This balances the interests of the service provider against those of society in general. In contrast, the average TSLRIC's only legitimate role is to ensure that no service is cross-subsidized by another. A cross-subsidy test based on TSLRIC balances the interests of the service provider against those of its competitors. For the same reasons, the TSLRIC cannot and should not be used as a price floor.

Parties have expressed concern that any effort

to include contribution in the prices of unbundled components would lead to price squeeze and unfair competition. The solution, in my opinion, is very simple. If the economically efficient form of imputation which I have proposed in the other docket as well, is practiced for unbundled essential facilities, that is if BellSouth includes as much contribution in its competitive retail service as it does in the essential facility that it sells to its competitors, no price squeeze can occur.

economic theory, differs from the alternative imputation procedure that you've heard, which suggests that the imputation should be of the full price of the essential facility. The difference only arises, as you've also heard, if the cost of providing that facility to a competitor is different from the cost of using it internally. In the absence of this difference, the two rules amount to the same thing.

I urge the Commission to reject any call for artificial restrictions on LRIC-based pricing of unbundled components that have no basis in sound economics.

For example, the proviso that the prices of unbundled elements of a service cannot, in some, exceed

the price of the bundled service, is meaningless when the service provider experiences economies of scope.

I have suggested the use of economically efficient pricing principles for the unbundling context, of which the inverse elasticity pricing rule is only one, albeit a familiar one. In fact, that form of pricing is commonly practiced in the real world -- volume discount in long distance telecommunications, different game ticket prices for students and staff, different doctors' fees or different patients, et cetera. It appears in many different forms.

In all instances, the Commission's focus should properly be on getting the competitors to provide service at the lowest possible price to Florida customers. From a public policy standpoint, the economic interests of those customers must supersede the narrower financial interests of all potential competitors. Thank you.

- Q Does that conclude your summary?
- A It does.

MR. CARVER: Dr. Banerjee is available for cross-exam.

CHAIRMAN CLARK: Ms. Wilson? Ms. Weiske?

MS. WEISKE: No questions.

CHAIRMAN CLARK: Mr. Melson?

CROSS-EXAMINATION

BY MR. MELSON:

Q Dr. Banerjee, I'm Rick Melson representing MCI Metro. If I understood your summary, you said that practicing economically correct imputation will avoid a prize squeeze; is that correct?

A That's right.

Q And I understand that your opinion as to economically correct imputation is different from Dr. Cornell's; is that also correct?

A As I pointed out, it's only different when the costs of providing the essential facility to the competitor is different from the cost of using it internally.

Q Let me ask you a hypothetical question with some numbers, so that I can understand how your version of the imputation test would apply to a set of facts.

Now, I understand basically your imputation test is that the retail price of a local exchange company service must cover two things. It must cover the cost to the LEC of providing the service, and if the service contains an element that is an essential element of a competitor's service, it must also include the contribution associated with that essential element; is that correct?

- A That's right.
- Q And you agree, would you not, that unbundled loops today, unbundled loops sold by BellSouth to an ALEC, would be an essential element of the ALEC service?
 - A At the present time, yes.
- Q Let me try to use an example with numbers to understand how your principle applies. And I've tried to write the numbers up here so we can all see them.

Assume with me that BellSouth's total cost, monthly cost, of providing local service, including the local loop, is \$19. Assume with me that BellSouth's cost of providing a local loop to itself to be used in providing that local service is \$16, and that the difference of \$3 would represent switching, transport and so forth. Do you understand the example?

A Let me repeat to you what I thought I heard. \$16 is the cost to BellSouth of using its own loops, internally. \$3 is the cost of the non-loop functions, and therefore \$19 is the total cost of providing that service, which includes the loop and the non-loop functions.

Q That's correct. Also assume that BellSouth's cost of providing an unbundled loop to its competitor, an ALEC, is \$17, or in this example, one dollar higher

than the cost of using it internally.

A Okay.

- Q And finally, assume that BellSouth's price to an ALEC for an unbundled loop is \$21.
 - A Okay.
- Q I neglected to write that one on the easel, although I remember what an easel is called.

Given that set of facts, would you explain to the Commission, using your version of imputation, what the price floor for BellSouth's local service would have to be in order for that service to pass your imputation test?

A Let me start out by saying what that imputation test is. First of all, you have to look at the direct incremental cost of providing the retail service; that is BellSouth's direct incremental cost of providing the retail service. What you have identified in this hypothetical example is a direct incremental cost of \$19. Then what you have to do is to figure out the contribution that BellSouth is earning by selling the essential facility to its competitors. By your hypothetical example, and the numbers that you provided, that contribution is 21 minus 17, which is \$4. You would add the \$4 to 19, and come up with the end user rate of \$23.

circumstances that you have given me, the kinds of

numbers that have given me, I would propose that price 1 squeeze be eliminated by using the contribution 2 imputation procedure that I have just provided. In 3 other words, you set the price floor according to the procedure that I've outlined for you. 5 Assume with me that the Commission does not 6 have the authority to set the price floor above \$13.50, 7 which we've assumed is the rate. Would another way to 8 mitigate that price squeeze be to reduce the price of 9 the unbundled loop sold to the competitor closer to or 10 equal to its long run incremental cost? 11 My answer is that even though mathematically 12 that is possible, that is not a preferred solution as 13 far as I'm concerned. 14 The preferred solution would be to raise the 15 price of the local service in this example? 16 17 Yes. MR. MELSON: I have got no further questions. 18 19 Thank you. 20 CHAIRMAN CLARK: Ms. Dunson? 21 MS. DUNSON: No questions. 22 CHAIRMAN CLARK: Mr. Self? 23 MR. SELF: No questions. 24 CHAIRMAN CLARK: Mr. Fincher?

MR. FINCHER: No questions.

1	CHAIRMAN CLARK: Mr. Falvey?
2	MR. FALVEY: No questions.
3	CHAIRMAN CLARK: Staff?
4	MR. ELIAS: Madam Chairman, I would ask that
5	the deposition transcript of Dr. Banerjee, which is
6	marked as AB-1, be assigned the next exhibit number.
7	CHAIRMAN CLARK: The deposition of
8	Dr. Banerjee taken on January 5th, 1996 will be marked
9	as Exhibit 20. It's true and correct to the best of
10	your knowledge, is it not?
11	(Exhibit No. 20 marked for identification.)
12	WITNESS BANERJEE: Yes, ma'am.
13	MR. ELIAS: We have nothing further.
14	CHAIRMAN CLARK: Commissioners?
15	(No response)
16	MR. LACKEY: Are we good or what?
17	CHAIRMAN CLARK: Depends on Mr. Lackey.
18	MR. LACKEY: Fifteen minutes of redirect.
19	MR. CARVER: Actually, we have maybe one
20	question on redirect.
21	CHAIRMAN CLARK: Go ahead, Mr. Carver.
22	REDIRECT EXAMINATION
23	BY MR. CARVER:
24	Q Dr. Banerjee, I would like you to take those
25	numbers Mr. Melson gave you as a hypothetical, and

assume that rather than using the imputation method that you propose, you were instead to use Dr. Cornell's imputation method and impute the price rather than the contribution. What then would be the cost for local service, if you can do that? If you can't, please tell me.

A I will try and take a look at the numbers again. That rule says that you take the incremental cost of the non-loop portion -- because the loop is the essential facility. You take the incremental cost of the non-loop portion -- which in this case, according to this hypothetical, is \$3 -- and you add to that the price that BellSouth charges for its loop, and that number is 17. I believe that was the number that was given to me. 21, excuse me. Yes, 21. 21 plus three will result in a price floor of \$24, which is higher than what would result under my formula.

MR. CARVER: Thank you. I have nothing further.

CHAIRMAN CLARK: I'm sorry. I thought you said it was 17 plus 3.

witness baneries: No, ma'am, I made a mistake. The \$21 is the price off the loop, which is charged to the ALEC, and becomes a cost to the ALEC. To that is added the direct incremental cost of the

non-loop portion of the ALEC service, which is the \$4 -- \$3. So three plus 21 adds up to \$24.

Under the alternative imputation procedure

Under the alternative imputation procedure
that Dr. Cornell has proposed, the price floor would be
24. Under the imputation procedure that I have proposed
it would be 23. The difference of that \$1 can be seen
right there. It is the same \$1 difference between the
cost of providing the loop to the competitor, which is
17, and the cost of using it internally, which is 16.
That's where the difference comes from. If that
difference did not exist, then the two procedures would
result in the same price floor.

CHAIRMAN CLARK: Okay. Anything else,

Mr. Carver?

MR. CARVER: No.

CHAIRMAN CLARK: Exhibits?

MR. CARVER: Yes, we would like to move

18 Exhibit No. 19.

CHAIRMAN CLARK: Exhibit No. 19 is entered in the record without objection.

MR. ELIAS: Staff moves Exhibit 20.

CHAIRMAN CLARK: Exhibit 20 is entered in the record without objection. Any matters we need to take up before we adjourn?

(Exhibit Nos. 19 and 20 received into

evidence.) 1 MR. HATCH: One more housekeeping detail, 2 Madam Chairman. We have at great length talked about, 3 back and forth in both dockets in the last several days, about the stipulation and agreement signed between 5 BellSouth and those folks that have signed it. 6 Unfortunately, it is not in the evidentiary 7 record of this proceeding. So what we are proposing is 8 that the stipulation and agreement that is attached to Mr. Scheye's rebuttal testimony to Metropolitan Fiber Systems, which is in the other record, that that 11 document be stipulated into this record. I believe 12 we've spoken to all the parties and no one objects. 13 CHAIRMAN CLARK: So we need to make it an 14 15 exhibit? Yes, ma'am. 16 MR. HATCH: CHAIRMAN CLARK: Exhibit 21 is going to be 17 what? 18 19 MR. HATCH: It would be the stipulation and agreement attached to Mr. Scheye's rebuttal testimony of 20 Metropolitan Fiber in Docket 950985. 21 CHAIRMAN CLARK: Isn't the stipulation with 22 TCG? 23

24

25

MR. HATCH:

not the original TCG.

That's the one. Wait, wait, it's

1	CHAIRMAN CLARK: Why don't you give me the
2	title of the stipulation?
3	MR. HATCH: It's the one between Time Warner
4	and everybody else and Southern Bell.
5	CHAIRMAN CLARK: I guess I want to be clear
6	that I have everybody understands what the exhibit
7	is.
8	MR. HATCH: It is identified as RCS-7, as an
9	attachment to that testimony.
10	CHAIRMAN CLARK: RCS-7 from docket 950985.
11	MR. HATCH: Yes. And that consists of 43
12	pages.
13	CHAIRMAN CLARK: Forty-three pages. That will
14	be Exhibit 21. It will be admitted in the record
15	without objection and you'll make sure you get the court
16	reporter a copy.
17	MR. HATCH: Yes, ma'am.
18	(Exhibit No. 21 received into evidence.)
19	CHAIRMAN CLARK: Anything else?
20	WITNESS BANERJEE: Madam Chairman, am I
21	excused?
22	CHAIRMAN CLARK: Yes, you may be excused.
23	MR. MELSON: Madam Chairman, I understand the
24	briefing schedule for this docket is now to have the
25	brief due on the Monday

1	MS. CANZANO: Monday, January 29th.
2	CHAIRMAN CLARK: Okay, with that, this
3	proceeding is adjourned and we can all be excused.
4	Thank you very much.
5	(Hearing concluded at 4:00 p.m.)
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1	STATE OF FLORIDA) COUNTY OF LEON) CERTIFICATE OF REPORTER
2	•
3	WE, JOY KELLY, CSR, RPR, Chief, Bureau of Reporting, SYDNEY C. SILVA, CSR, RPR, Official
4	Commission Reporter; and LISA GIROD JONES, RPR, RMR,
5	DO HEREBY CERTIFY that the hearing in this cause, Docket No. 950984-TP, was heard by the Florida
6	Public Service Commission at the time and place herein stated; it is further
7	CERTIFIED that we reported in shorthand the said proceedings, and that this transcript, consisting
8	of 382 pages, Volumes 1 through 2, inclusive, constitutes a true and accurate transcription of our
9	notes of said proceedings.
10	DATED THIS 12th DAY OF January
11	
12	Jorg Delle
13	JOY KELLY, CSR, RPR, Chief, Bureau of Reporting
14	Lad. C. S.
15	SYDNEY C. SILVA, CSR, RPR
16	Official Commission Reporter
17	Lisa Girod Jones
18	LISA GIROD JONES, RPR, RMR
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ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

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FPSC-RECORDS/REPORTING

July 19, 1995

Mr. Tom Hamby BellSouth 125 Perimeter Center West Atlanta, Georgia 30346

Dear Tom:

In preparation for the upcoming Co-carrier meeting between MFS and BellSouth, I have prepared the following outline of MFS's proposed arrangements for the co-provision of local exchange services.

- 1. Number Assignments MFS will order its own NXX's through the established industry guidelines. MFS will establish rating points for these NXX's, and will list the numbers in the appropriate industry routing and rating guides.
- II. Tandem Subtending/Meet-point Billing Under established industry guidelines, MFS will interconnect with a BellSouth access tandem for the provision of switched access services to interexchange carriers. MFS will negotiate the appropriate billing percentages for jointly provided transport services. MFS prefers a single-bill approach for the provision of these services. Included in this arrangement is the routing of 800 calls originated by an MFS end user.
- III. Interconnection and Reciprocal Compensation This defines the physical arrangements that MFS and BellSouth will configure to exchange local and toll traffic, and the financial arrangements associated with such arrangements. Existing switched access charges are not appropriate for the termination of local traffic because these rates greatly exceed the long run incremental cost of terminating traffic, and in many cases exceed the retail rate of local calling services.
 - A. Interconnection of Networks MPS proposes that interconnection of networks be accomplished through meet points. Each carrier will be responsible for providing trunking to the meet point for the hand off of combined local and toll traffic, and be responsible for completing calls to all end user on their networks at the appropriate interconnection rate.

CCITT ECM:# 3

Mr. Tom Hamby July 19, 1995 Page 2

B. Shared trunk groups - Carriers will pass both toll and local traffic over a single trunk group. A percent local utilization factor will be used to provide the proper local vs. toll percentage, subject to audit.

; 7-26-**9**5 ; 3:48PM ;

- C. Pricing of interconnection arrangements MFS proposes that a Bill and Keep, or mutual exchange, arrangement be utilized for the termination of local calls until the long run incremental cost of terminating calls is developed. Under this arrangement, the local portion of traffic completed by the other carrier is not billed. Toll traffic will be billed under the appropriate state or interstate access rates.
- IV. Shared Platform Arrangements The following shared platform arrangements are necessary to provide the full range of necessary local exchange services. MFS would like to explore, where possible, the ability to update appropriate databases by electronic means.
 - A. Interconnection to 911 systems Provides for the establishment of trunking between MFS and established 911 hubs for the proper routing of calls.
 - B. 911 database access Provides for the update of established ALI databases for the inclusion of new entrant customers.
 - C. Directory Listings Provides that new entrants customers are provided the same free initial listing in the existing Bell white and yellow pages as they would receive as a Bell end user.
 - D. Directory Publishing and Delivery Provides that new entrant customers are provided the same free service for the delivery of white pages as they would receive as a Bell end user.
 - E. Directory Assistance Database Provides that new entrant customers are included in the existing Bell Directory Assistance Database.
 - F. Access to the Master Street Access Guide (MSAG) This provides emergency service numbers and information for the correct routing of 911 calls.
 - G. Interconnection of Operator Service Platforms for the provision of Busy Line Verification and Interrupt Services.
 - H. Billing Arrangements for Mass Announcement Services

Mr. Tom Hamby July 19, 1995 Page 3

V. Unbundling - Unbundling refers to the utilization of components of BellSouth's presently tariffed services. MFS's initial unbundling proposal is to begin utilization of loop facilities between a BellSouth central office and a customer premises. Unbundling will require the utilization of collocation for intrastate services, and the utilization of digital loop carrier systems within the collocation arrangements. Loop pricing should be appropriately discounted from the retail price for bundled dial tone line services.

VI. Interim Number Portability - MFS proposes that a remote call forwarding approach be utilized, with SS7 signalling to allow the utilization of certain Class features, until such a point where full number portability is made available. No charge should be applied, with the agreement that MFS would provide the same arrangement back to BellSouth at no charge.

I look forward to discussing these issues with you at the meeting. Please call me at (212) 843-3056 if you would like to discuss any of these issues before hand.

Sincerely,

Gary J. Ball
Director of Regulatory Affairs



R. C. Scherye Senior Director Strategy Development Core Business Recogn | IALS 675 West Punchtrus Street, N.E. Atlanta, Georgia 30375 (404) 420-8327

July 21, 1995

Gary Ball MFS 33 Whitehall Street New York, New York 10004

Post-It" Fax Note . 7671	Date 8/1/17 # 01 > 2
TIM Daine	From Loy Meade
Co./Oept.	Co.
Phone #	Phone #
Fax #	Fav #

Dear Gary:

I believe our July 20th meeting was productive and provides a good basis for further discussions. As you requested I am responding to the points you outlined in your July 19th letter to Tom Hamby. The following information summarizes the discussion we had on these issues.

- Number Assignments: MFS anticipates using NNX codes in a manner consistent with BellSouth's local calling area definitions. BellSouth will work with MFS to meet this intent to best assure NNX codes are conserved.
- il. Tandem Subtanding/Meet Point Billing: SST will provide tandem switching to allow switched access between an MFS end office and an interexchange carrier. BellSouth will bill its rate elements to the interexchange carrier and assumes MFS will do likewise. However, it BellSouth and MFS cannot agree on which rate elements each should bill, resulting in the possibility that the interexchange carrier will not be properly billed, BellSouth would suggest that the interexchange carrier and MFS connect directly: MFS indicated that it may wish to also have BellSouth provide intermediary switching between MFS and other local exchange carriers. Because these are potentially complex arrangements, further discussion is appropriate.
- III. Interconnection and Reciprocal Compensation: As discussed, BellSouth believes a differential in compensation is appropriate until a property defined universal service fund is implemented. With a USF, BellSouth anticipates comparable rates for the exchange of traffic. Unlike some other companies, BellSouth believes local interconnection, toll access, cellular access and independent company interconnection arrangements will be transitioned to a consistent plan as traffic types become indistinguishable. In terms of trunking arrangements, additional discussion by engineering personnel from our respective companies should provide solutions that are mutually acceptable.

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IV. Shared Platform Arrangements: Currently, the Georgia legislation requires unbundling of features and functions equal to that authorized by the FCC. The Georgia PSC may require additional unbundling if it deems it to be appropriate. While BellSouth is still working on some of the items suggested by MFS, no specific issues exist at this time. Further work is needed to define prices and the details of several of the items mentioned in your letter.

V. Unbundling: The issue of digital loop carrier is still being investigated to determine whether it can be technically provided. BellSouth believes that special access and private line tariffs already offer an unbundled loop and providing a comparable loop at a different price will result in tariff arbitrage.

However, at this time, our positions seem to be consistent.

VI. Interim Number Portability: BellSouth will provide remote call forwarding as requested by MFS at an appropriate charge. To the extent BellSouth purchased remote call forwarding from MFS, it would anticipate paying comparable rates. BellSouth will explore how CLASS features can be provided using SS7 signaling with remote call forwarding.

Hopefully, this information summarizes our July 20th discussion. I also look forward to our follow up meeting scheduled for August 18th starting around 11:00 AM. Originally we had planned on August 17th but a conflict arose and I left a message at your office moving the meeting one day. If this is inconvenient, please let me know so we can reschedule.

Sinceraly,
Blischer

cc: Jirii Forbes - MFS

Tom Hamby - BellSouth

Richard Roberston - BellSouth

Nancy Sims - BallSouth



REGULATORY AFFAIRS DEPARTMENT 33 WHITEHALL STREET, 15th FLOOR NEW YORK, NEW YORK 10004 TEL. (212) 843-3052 FAX (212) 843-3050

(Auto-11) August 16)
September 16, 1995

R.C. Scheye
BellSouth Telecommunications
Room 11A15
675 West Peachtree Street, N.E.
Atlanta, GA 30375

Dear Bob.

Thank you for your response to the initial meeting between MFS and BellSouth. Since our initial meeting, MFS has reorganized its regulatory group. Tim Devine is now the Senior Director of Regulatory Affairs for the Southern Region, and will be taking over the responsibility of negotiations for local service beginning at the August 18th meeting. As I will not be in attendance, I felt it appropriate to clarify some of the points of agreement and disagreement that occurred in the first meeting. Please send me a clarifying response if any of the statements below are not an accurate portrayal of our meeting, or of BellSouth's position on any of these issues.

I. Number Assignments - There appear to be no disagreements regarding the ability of MFS to obtain its own NXX codes through the established industry guidelines.

II. Tandem Subtending/Meet-point Billing - The key area of disagreement appears to be in which carrier will bill the residual interconnection charge (RIC). It is MFS' position (and has been its experience in other states) that the carrier providing the end office switching, (in this case MFS), is the carrier that receives the RIC. BellSouth disagrees, and would like to bill and collect the RIC itself.

III. Interconnection and Reciprocal Compensation - Regarding physical interconnection, there was a general agreement between the two parties to identify meet-points for the exchange of local traffic, and that both toll and local traffic can be passed over a single trunk group utilizing a percent local utilization factor (PLU). In terms of the rates that carriers will pay each other for the termination of local calls, BellSouth has suggested that its tariffed transport and local switching rate elements will be used as a reciprocal rate between carriers, and that the RIC and the carrier common line charge be used as an interim means of funding universal service and be charged by BellSouth only. While MFS shares BellSouth's concern for the preservation of universal service, it is our understanding that this issue will be separately dealt with in regulatory proceedings in both Georgia and Florida, and that negotiating universal service funding was not

contemplated in either state's recently passed legislation. As such, MFS would like to focus on the interconnection rate only, with the assumption that universal service funding will be dealt with in the appropriate regulatory proceedings. Regarding the proposal for local switching, it is MFS' understanding that BellSouth's currently tariffed rate for local switching is approximately \$.008 per minute of use, tandem switching is .0007, and transport is .00004 per mile and .00036 fixed. As Georgia and Florida has flat-rate calling for both business and residential customers, it is clear that these rates are far too high to facilitate local exchange competition. Additionally, it is widely acknowledged throughout the industry and by regulators that current switched access rates are not cost-based, and in fact far exceed costs. For all of these reasons, MFS proposes a bill and keep arrangement as the most appropriate reciprocal compensation plan.

IV. Shared Platform Arrangements - There was general agreement regarding the co-provision of 911 service, although no specific arrangements relating to 911 funding have been discussed. Regarding directory listings, BellSouth has agreed to provide a free initial listing of MFS customers in its white and yellow pages, free listing in the directory assistance database, as well as free publishing and delivery of books. Both parties agreed to further research issues relating to the Master Street Address Guide (MSAG), Busy Line Verification and Interrupt, and Billing Arrangements for Mass Announcement Services such as 511 service.

V. Unbundled Local Loops - BellSouth has agreed to provide unbundled loops assuming a MFS-provided digital loop carrier system can be utilized in a virtual collocation arrangement. For your information, MFS will conclude a technical trial with Bell Atlantic at the end of August which demonstrates the feasibility of utilizing unbundled loops in a virtual collocation arrangement. Additionally, MFS is also working with Ameritech on the same issue. Regarding pricing, while MFS has not reviewed the rates in BellSouth's private line tariff, it has been MFS' experience that, in most cases, the tariffed rate of a private line service exceeds the tariffed rate of a bundled dial tone business or residence line. If this is the case, applying such rates for unbundled loops will place MFS in a price squeeze, in that it would be paying more for the unbundled loops than it would be allowed to recover through end user retail rates. MFS proposes that the rate for an unbundled loop not exceed its proportion of the total bundled dial tone rate for a measured business line (one that does not have usage built in), until such a time as the forward looking costs of loops are determined.

VI. Interim Number Portability - BellSouth has agreed to provide remote call forwarding functionality as a means of providing interim number portability, and has agreed to route calls over the same trunk groups as other traffic on an SS7 basis. Regarding the collection of terminating access charges, BellSouth has proposed to keep the difference between toll access charges it collects from IXCs, and the local access charges it would pay to MFS. MFS disagrees, in that it has full rights to receive all revenues associated with its piece of provisioning switched access services. Additionally, BellSouth has not proposed any pricing for utilizing interim number portability outside of its tariffed retail rate. MFS believes such pricing is inappropriate, and proposes instead that MFS and BellSouth reciprocally provide interim number portability to one another without charge.

Additionally, you mentioned some possible issues relating to CLASS services in terms of

transmitting appropriate information, such as privacy indicators, between carriers to allow the interoperability of these services. It has been MFS' experience in other states that there are no impediments to full CLASS interoperability between carriers.

I hope this has been an accurate assessment of our first meeting. Please call me at (212) 843 - 3056 if you would like to discuss any of these issues before the August 18th meeting.

sincerely.

Gary J. Ball

cc:

T. Devine

A. Harris

J. Forbes

D. Caruso

L. Mead

T. Hamby

N.Sims

R. Robertson

BellSouth - Local Interconnection Negotiating Process

Bulling August 18

Overall Fact Finding Team

- Bob Scheye (404) 420-8327
- Richard Robertson (205) 977-5690
- State Regulatory Vice President Varies by State
- Other Organizations and Functionprovided on an as needed basis

Network Issues: Contact Vic Atherton (205) 977-5041

Trunking Issues

- George Jung
- Nancy Kallus
- Art Lane
- Bill McAllister
- Rob McKibben
- Jim Pritchett

Signaling Issues

- Russ Arsaga
- Jane Raulerson
- Stan Spillars

Number Portability Issues

- Loraine Beyer
- Steve Ottaway
- Gary Robert
- Neil Russo

Loop Issues

- Sharon Irwin
- John Jackson
- Ed Jones
- Jane Raulerson

911 Services Issues: Contact Evelyn Parks (404) 529-2527

- Sandra Hall
- Carl Jackson
- Doug Kennedy
- Bill Marczak
- Ron Pardue
- Gary Robert
- Brenda Slonneger

Unbundled Features and Functions Issues: Contact Jerry Latham (205) 977-2213 CMDS AND ITORP

- Stephanie Reardon
- Tim Yelton

Collocation

- Pam Tipton

800 Data Base

- Elbert Balch

Access To Numbers

- Harry Coleman

Switching and Ports

- TBD

Operator Services Issues: (Augustus) Contact Barbara Watson (404) 529-7466

- Jeff Anderson
- David Rose

Ordering, Billing, and Repair Services Issues: Contact Gloria Calhoun (404) 529-5579

- Sherry Brannon
- Jane Raulerson
- Dana Simerson
- Ed Welch
- Shirley Wilcox

Other Issues Not Described Above: Contact Bob Scheye (404) 420-8327 or your BellSouth Account Representative

Fax Cover Sheet

DATE:

8/22/95

TIME:

5:36 PM EST

TO:

RE:

Bob Scheye

PHONE:

(404) 420-8327

BellSouth

FAX:

(404) 420-0031

FROM:

C. Loyall Meade

PHONE:

VOICE MAIL:

(804)448-4825 (703)506-2057

MFS Contact List

Director, Implementation

FAX:

(804)448-4952

Number of pages including cover sheet _2

fy Meale

Comments

Bob.

We enjoyed meeting with you last week. Attached, as promised, is MFS' contact list for the Cocarrier/Local Interconnection issues, which corresponds with the BellSouth list you provided at the meeting. As discussed, we will begin making some introductory calls to your team members within the next several days.

Looking forward to working with you and your organization.

MFS Communications - BellSouth Co-Carrier Issues

*** MFS Team Members ***

ļ⇒	Regulatory Affairs	Tim Devine	(404)224-6115
⇒	General/Regional Implementation	Loy Meade	(804)448-4825
⇒	Local Implementation	TBD	
⇒	Trunking 800 Database	Caroleann Hardenstein	(201) 524-9574
⇒	Signalling	Wolfgang Schesing	(201)938-7328
⇒	Number Portability	Pamela Kenworthy	(201)938-7387
⇒	Access to Numbers	Suzanne Yerdon	(201)938-7346
⇒	Loop Issues	Charlie Wehnes	(201)524-9556
⇒	Collocation Switching and Ports	Bob McCausland	(708)203-2505
⇒	911 Issues	Steve Fitzgerald	(617)946-2017
⇒	CMDS and ITORP Ordering and Billing Issues	Chuck Polizzotti	(201)524-9523
⇒	Operator Services Directory Services	Nancy Nocella	(201)938-7388



EXTERNAL & REGULATORY AFFAIRS SOUTHERN REGION

250 Williams Street, Suite 2200 Atlanta, GA 30303 Voice (404) 224-6000 @ //5 Fax #: (404) 224-6060

Date: 9-15-95 To: 886 Scheye

Co: <u>DO// SOS/ A</u>

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From: Tim Devine

Subj.: GA + FL Dratt Agreemen +

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The Parties, each of which currently provides or intends to provide Exchange Services over their own respective switching networks in the State of agree pursuant to this Stipulation and Agreement to extend certain arrangements to one another as described and according to the terms, conditions and pricing specified hereunder. The Parties enter into this agreement without prejudice to any positions they have taken previously, or may take in the future in any legislative, regulatory, or other public forum.

I. RECITALS & PRINCIPLES

WHEREAS, universal connectivity between common carriers is the defining characteristic of the public switched telecommunications network in which all common carriers participate; and

WHEREAS, absent such connectivity the utility of communications services to individual consumers and to society as a whole would be severely and unnecessarily diminished; and

WHEREAS, encouraging fair, efficient and reasonable connectivity of networks has been identified as being in the public interest and as a guiding principle of U.S. telecommunications policy throughout this century¹; and

WHEREAS, the events of the last three decades have made it abundantly clear that competition in communications markets has been highly beneficial to consumers and society as a whole; and

WHEREAS, it is now possible and eminently desirable to extend the benefits of competition to the local exchange services market; and

WHEREAS, the most basic prerequisite for the mere introduction of local exchange competition is the establishment of certain arrangements between and among incumbent and entrant local exchange carriers; and

WHEREAS, in order that the greatest possible benefits should accrue to consumers and society, such arrangements must: (1) allow the natural development of full, fair, efficient and effective local exchange competition; (2) allow each carrier to recognize and respond to competitive market incentives to configure robust, high quality, least-cost, efficient networks, to innovate, to optimize overall operations, to improve total customer service and customer responsiveness; and (3) ensure optimal inter-operability and service transparency to all end users; regardless of the carrier from which the end user chooses to receive service; and

Beginning at least with the "Kingsbury Commitment of 1913", wherein the Bell System, in a bid to stave off anti-trust action, committed to the United States Attorney General to, among other things, connect its networks with those of independent telephone companies.

WHEREAS, in order for efficiency and fairness to uphold in these arrangements, it is essential that each incumbent and entrant local exchange carrier be allowed the greatest possible flexibility and discretion to develop its own basic business strategies -- especially with respect to network design, technology and capital choice and deployment, management of operating expenses, product offerings and product packaging -- and should take sole responsibility for, and bear all risks associated with its own strategies and decisions in these areas; and

WHEREAS, no carrier should be in a position to shift any burdens arising from its own unilateral decisions and strategies in these areas onto its competitors, nor be able to confiscate from a competitor any benefits arising from that competitor's own unilateral decisions and strategies; and

WHEREAS, in the service of maximum inter-operability, each incumbent and entrant local exchange carrier should be able to efficiently, flexibly, and robustly exchange traffic and signaling with every other carrier operating in the same area at well-defined and standardized points of mutually agreed interconnection;

NOW, THEREFORE, in consideration of the mutual provisions contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ELEC and ILEC hereby covenant and agree as follows:

II. DEFINITIONS

- A. "Automatic Number Identification" or "ANI" refers to the number transmitted through the network identifying the calling party.
- B. "Central Office Switch", "Central Office" or "CO" means a switching entity within the public switched telecommunications network, including but not limited to:

"End Office Switches" which are Class 5 switches from which end user Exchange Services are directly connected and offered.

"Tandem Office Switches" which are Class 4 switches which are used to connect and switch trunk circuits between and among Central Office Switches.

Central Office Switches may be employed as combination End Office/Tandem Office switches (combination Class 5/Class 4).

C. "CLASS Features" (also called "Vertical Features") include: Automatic Call Back; Automatic Recall; Call Forwarding Busy Line/Don't Answer; Call Forwarding Variable; Call Forwarding - Busy Line; Call Trace; Call Waiting; Call Number Delivery Blocking Per

Call; Calling Number Blocking Per Line; Cancel Call Waiting; Distinctive Ringing/Call Waiting; Incoming Call Line Identification Delivery; Selective Call Forward; Selective Call Rejection; Speed Calling; and Three Way Calling/Call Transfer.

- D. "Co-Location" or "Co-Location Arrangement" is an interconnection architecture method in which one carrier extends network transmission facilities to a wire center/aggregation point in the network of a second carrier, whereby the first carrier's facilities are terminated into equipment installed and maintained in that wire center by or on the behalf of the first carrier for the primary purpose of interconnecting the first carrier's facilities to the facilities of the second carrier.
- E. "Common Channel Signaling" or "CCS" means a method of digitally transmitting call set-up and network control data over a special network fully separate from the public switched network that carries the actual call.
- F. "Cross Connection" means an intra-wire center channel connecting separate pieces of equipment including equipment between separate colocation facilities.
- G. "DS-1" is a digital signal rate of 1.544 Mbps (Mega Bit Per Second).
- H. "DS-3" is a digital signal rate of 44.736 Mbps.
- 1. "DSX panel" is a cross-connect bay/panel used for the termination of equipment and facilities operating at digital rates.
- J. "Entrant Local Exchange Carrier" or "ELEC" means a LEC which is not the current or former Incumbent Local Exchange Carrier in any geographic area.
- K. "Exchange Message Interface" or "EMI" is the standard used for exchange of telecommunications message information between local exchange carriers and interexchange carriers. Data is provided between companies via unique record layouts that contain customer billing information, account summary and tracking analysis.
- L. "Exchange Message Record" or "EMR" is the standard used for exchange of telecommunications message information among Local Exchange Carriers for billable, non-billable, sample, settlement and study data.
- M. "Exchange Service" refers to all basic access line, PBX trunk, Centrex/ESSX-like services, ISDN services, or any other services offered

to end users which provide end users with a telephonic connection to, and a unique telephone number address on, the public switched telecommunications network, and which enable such end users to place or receive calls to all other stations on the public switched telecommunications network.

- N. "Incumbent Local Exchange Carrier" or "ILEC" means a LEC which is currently or was previously the exclusive LEC in a given geographic area.
- O. "Interconnection" means the connection of separate pieces of equipment, transmission facilities, etc., within, between or among networks. The architecture of interconnection may include several methods including, but not limited to co-location arrangements and mid-fiber meet arrangements.
- P. "Interexchange Carrier" or "IXC" means a provider of stand-alone interexchange telecommunications services.
- Q. "Interim Number Portability" or "INP" means the transparent delivery of Local Telephone Number Portability ("LTNP") capabilities, from a customer standpoint in terms of call completion, and from a carrier standpoint in terms of compensation, through the use of direct inward dial ("DID") and/or remote call forwarding ("RCF") capabilities between networks.
- R. "ISDN" means Integrated Services Digital Network; a switched network providing end-to-end digital connectivity for the simultaneous transmission of voice and data. Basic Rate Interface-ISDN (BRI-ISDN) provides for digital transmission of two 64 Kbps bearer channels and one 16 Kbps data channel (2B+D). Primary Rate Interface-ISDN (PRI-ISDN) provides for digital transmission of 8 2B+D channel sets.
- S. "Line Side" refers to an end office switch connection that has been programmed to treat the circuit as an local line connected to a ordinary telephone station set. Line side connections offer only those transmission and signaling feutures appropriate for a connection between an end office and an ordinary telephone station set.
- T. "Link Element" or "Link" is a component of an Exchange Service; for purposes of general illustration, the "Link Element" is the transmission facility (or channel or group of channels on such facility) which extends from a Main Distribution Frame, DSX-panel, or functionally comparable piece of equipment in an ILEC end office wire center, to a demarcation or connector block in/at a customer's premises. Traditionally, links were provisioned as 2-wire or 4-wire copper pairs running from the end office

distribution frame to the customer premise; however, a link may be provided via other media, including radio frequencies, as a channel on a high capacity feeder/distribution facility which may in turn be distributed from a node location to the customer premise via a copper or coax drop facility, etc. Links fall into the following categories:

"2-wire analog voice grade links" will support analog transmission of 300-3000 Hz, repeat loop start or ground start seizure and disconnect in one direction (toward the end office switch), and repeat ringing in the other direction (toward the end user). This link is commonly used for local dial tone service.

"2-wire ISDN digital grade links" will support digital transmission of two 64 Kpbs bearer channels and one 16 Kbps data channel. This is a 2B+D basic rate interface Integrated Services Digital Network (BRI-ISDN) type of loop which will meet national ISDN standards.

"4-wire DS-1 digital grade links" will support full duplex transmission of isochronous serial data at 1.544 Mbps. This T-1/DS-1 type of loop provides the equivalent of 24 voice grade/DS0 channels.

- U. "Local Exchange Carrier" or "LEC" means any carrier that provides facility-based Exchange Services utilizing a switch it owns or substantially controls in conjunction with unique central office codes assigned directly to that carrier. This includes both incumbent Local Exchange Carriers ("ILEC") and Entrant Local Exchange Carriers ("ELEC").
- V. "Local Telephone Number Portability" or "LTNP" means the technical ability to enable an end user customer to utilize its telephone number in conjunction with any exchange service provided by any Local Exchange Carrier operating within the geographic number plan area with which the customer's telephone number(s) is associated, regardless of whether the customer's Chosen Local Exchange Carrier is the carrier which originally assigned the number to the customer, without penalty to either the customer or its chosen local exchange carrier.
- W. "Main Distribution Frame" or "MDF" is the primary point at which outside plant facilities terminate within a wire center, for interconnection to other telecommunications facilities within the wire center.
- X. "Mid-Fiber Meet" is an interconnection architecture method whereby two carriers meet at a fiber splice in a junction box.

- Y. "Network Data Mover" describes a File Transfer Protocol for sending/receiving data files.
- Z. "Numbering Plan Area" or "NPA" is also sometimes referred to as an area code. This is the three digit indicator which is defined by the "A", "B", and "C" digits of each 10-digit telephone number within the North American Numbering Plan ("NANP"). Each NPA contains 800 possible NXX Codes. There are two general categories of NPA, "Geographic NPAs" and "Non-Geographic NPAs". A "Geographic NPA" is associated with a defined geographic area, and all telephone numbers bearing such NPA are associated with services provided within that geographic area. A "Non-Geographic NPA", also known as a "Service Access Code" or "SAC Code" is typically associated with a specialized telecommunications service which may be provided across multiple geographic NPA areas; 800, 900, 700, nad 888 are examples of Non-Geographic NPAs.
- AA. "NXX", "NXX Code", "Central Office Code" or "CO Code" is the three digit switch entity indicator which is defined by the "D", "E", and "F" digits of a 10-digit telephone number within the North American Numbering Plan ("NANP"). Each NXX Code contains 10,000 station numbers. Historically, entire NXX code blocks have been assigned to specific individual local exchange end office switches.
- BB. "On-Line Transfer" means the transferring of an incoming call to another telephone number without the call being disconnected.
- CC. "Permanent Number Portability" or "PNP" means the use of a database solution to provide fully transparent LTNP for all customers and all providers without limitation.
- DD. "Plain Old Telephone Service Traffic" or "POTS traffic" refers to calls between two or more Exchange Service users, where both Exchange Services bear NPA-NXX designations associated with the same LATA.
- EE. "Port Element" or "Port" is a component of an Exchange Service; for purposes of general illustration, the "Port" is a line card and associated peripheral equipment on an ILEC end office switch which serves as the hardware termination for the customer's exchange service on that switch and generates dial tone and provides the customer a pathway into the public switched telecommunications network. Each Port is typically associated with one (or more) telephone number(s) which serves as the customer's network address. Port categories include:

"2-wire analog line port" is a line side switch connection employed to provide basic residential and business type Exchange Services.

"2-wire ISDN digital line port" is a Basic Rate Interface (BRI) line side switch connection employed to provide ISDN Exchange Services.

"2-wire analog DID trunk port" is a direct inward dialing (DID) trunk side switch connection employed to provide incoming trunk type Exchange Services.

"4-wire DS-1 digital DID trunk port" is a direct inward dialing (DID) trunk side switch connection employed to provide the equivalent of 24 analog incoming trunk type Exchange Services.

- FF. "Rate Center" means a geographic area which a LEC has identified as the area within which it will provide Exchange Services bearing a particular NPA-NXX designation. Rate Centers are used to rate distance sensitive calls inbound to the Exchange Services bearing a given NPA-NXX designation.
- GG. "Rating Point" means a location which a LEC has designated on its own network as the homing point for traffic inbound to Exchange Services provided by the LEC which bear a certain NPA-NXX designation. Pursuant to Bellcore Practice BR 795-100-100, the Rating Point may be an "End Office" location, or a "LEC Consortium Point of Interconnection". Pursuant to that same Bellcore Practice, examples of the latter shall be designated by a common language location identifier (CLLI) code with (x)KD in positions 9, 10, 11, where (x) may be any alphanumeric A-Z or 0-9.
- HH. "Reference of Calls" referes to a process in which calls are routed to an announcement which states the new telephone number of an end user.
- "Service Control Point" or "SCP" is the node in the signaling network to which informational requests for service handling, such as routing, are directed and processed. The SCP is a real time database system that, based on a query from the SSP, performs subscriber or applicationspecific service logic, and then sends instructions back to the SSP on how to continue call processing.
- JJ. "Signal Transfer Point" or "STP" performs a pocket switching function that routes signaling messages among SSPs, SCPs and other STPs in order to set up calls and to query databases for advanced services.
- KK. "Switched Access Service" means the offering of facilities for the purpose of the origination of termination of non-POTS traffic to or from Exchange Services offered in a given area. Switched Access Services

include: Feature Group A, Feature Group B, Feature Group D, 800 access, and 900 access.

- LL. "Trunk Side" refers to a central office switch connection that is capable of, and has been programmed to treat the circuit as connecting to another switching entity, for example a private branch exchange ("PBX") or another central office switch. Trunk side connections offer those transmission and signaling features appropriate for the connection of switching entities, and can not be used for the direct connection of ordinary telephone station sets.
- MM. "Wire Center" means a building or space within a building which serves as an aggregation point on a given carrier's network, where transmission facilities and circuits are connected or switched.

III. DEFAULT NETWORK INTERCONNECTION ARCHITECTURE

LECs shall interconnect their networks as necessary to effect the Co-Carrier Arrangements identified in Parts V., VI., VII, and IX. Any two or more LECs shall be free to employ whatever network interconnection architecture and at whatever points as the may mutually agree, provided that each LEC makes available the same arrangements to each other LEC operating within the same areas. Notwithstanding any mutual agreements which may be established between carriers regarding the architecture of network interconnection arrangements they may voluntarily establish between their networks, each LEC shall minimally make available to each other LEC interconnection arrangements conforming to the default network interconnection architecture defined below:

- A. Each LATA within which at least one ELEC provides exchange services, shall be divided into one or more Default Network Interconnection Districts ("D-NID").
- B. Within each D-NID, a single Default Network Interconnection Point ("D-NIP") shall be designated and established as a point at which all LECs operating within the corresponding D-NID may interconnect to all other LECs operating within that D-NID.
- C. Initial D-NIDs shall correspond to the geographic area served by a single ILEC access tandem.² Within each initial D-NID, the ILEC wire center housing the ILEC access tandem shall be designated as an initial D-NIP.

^{2 (}a., an area comprised of all the exchange areas served by end office switches which subtend a given access tandem for the provision of switched access services to interexchange carriers.

- D. D-NIDs and D-NIPs shall be renewed every 36 months, subject to the following process:
 - 1. Beginning no later than 24 months after adoption of the thencurrent D-NIDs and D-NIPs, all LECs operating in a given LATA shall meet to renew or revise the D-NID and D-NIP configuration for that LATA, specifically with respect to number of D-NIDs, D-NID boundaries and location of D-NIPs.
 - 2. Decisions to renew or revise will require unanimous assent of all LECs operating in the LATA. Upon reaching a unanimous decision to renew or revise, all LECs shall implement such decision within 30 days, unless the LECs unanimously agree to implement on some other date.
 - 3. In the event the LECs are unable to reach a unanimous decision to renew or revise, or to extend discussions within 90 days of initially opening discussions, any single LEC shall have the right to petition the Public Utility Commission to resolve the issue.
 - 4. The Commission shall provide notice to the parties, convene a hearing to receive evidence from the interested parties, and make a determination within 90 days of receiving such petition. In making such a determination, the Commission shall be limited to: (1) renewing the existing D-NIDs and D-NIPs; or (2) approving and imposing an alternate D-NID/D-NIP plan which has been sponsored by one of the parties, and for which the Commission finds that the weight of the record demonstrates that such plan is more consistent with the public interest than any others presented during the course of its hearing. In no case however, shall the Commission approve a plan which would create a larger number of D-NIDs and D-NIPs than exist at the time of the hearing. Commission decisions shall be implemented by all LECs within 30 days of issuance of the Commission's decision.
- E. Where an ELEC and an ILEC interconnect at a D-NIP, ELEC shall have the right to specify any of the following interconnection methods:
 - 1. a mid-fiber meet at the D-NIP, or in a manhole or other appropriate junction point near to or just outside the D-NIP;
 - 2. a digital cross-connection hand-off, DSX panel to DSX panel, where both the ELEC and the ILEC maintain such facilities at the D-NIP;

- a co-location facility maintained by ELEC, or by a 3rd-party with whom ELEC has contracted for such purposes, at an ILEC wire center, where such wire center has been designated as the D-NIP; or
- 4. a co-location facility maintained by ILEC, or by a 3rd-party with whom ILEC has contracted for such purposes, at an ELEC wire center, where such wire center has been designated as the D-NIP.
- G. In extending network interconnection facilities to the D-NIP, ELEC shall have the right to extend its own facilities or to lease dark fiber facilities or digital transport facilities from ILEC or from any 3rd-party, subject to the following terms:
 - 1. Such leased facilities shall extend from any point designated by ELEC on its own network (including a co-location facility maintained by ELEC at an ILEC wire center) to the D-NIP or associated manhole or other appropriate junction point.
 - Where ELEC leases such facilities from ILEC, ELEC shall have the right to lease under the most favorable tariff or contract terms ILEC offers.
- H. Where an interconnection occurs via a co-location facility, no incremental cross-connection charges shall apply for the traffic exchange circuits.
- I. Upon reasonable notice, ELEC may change from one of the interconnection methods specified above, to one of the other methods specified above, with no penalty, conversion, or rollover charges.

IV. NUMBER RESOURCE ARRANGEMENTS

- A. Nothing in this agreement shall be construed to in any manner limit or otherwise adversely impact any LEC's right to request and be assigned central office (NXX) codes pursuant to the Central Office Code Assignment Guidelines³.
- B. As contemplated by the Central Office Code Assignment Guidelines, each LEC shall designate within the geographic NPA with which each of its assigned NXX codes is associated, a Rate Center area within which it intends to offer Exchange Services bearing that NPA-NXX designation.

Last published by the Industry Numbering Committee ("INC") on November 16, 1994, as IL-94/11-013.

- C. Each LEC will also designate a Rating Point for each assigned NXX code. A LEC may designate one location within each Rate Center as the Rating Point for the NPA-NXXs associated with that Rate Center; alternatively, the LEC may designate a single location within one Rate Center to serve as the Rating Point for all the NPA-NXXs associated with that Rate Center and with one or more other Rate Centers served by the LEC within the same LATA.
- D. To the extent any ILEC serves as Central Office Code Administrator for a given region, the ILEC will support all other LEC requests related to central office (NXX) code administration and assignments in an effective and timely manner.
- E. All LECs will comply with code administration requirements as prescribed by the Federal Communications Commission, the Public Utilities Commission, and accepted industry guidelines.
- F. It shall be the responsibility of each LEC to program and update its own switches and network systems to recognize and route traffic to each other LEC's assigned NXX codes at all times. No party shall impose any fees or charges whatsoever on any other carrier for such activities.

V. MEET-POINT BILLING ARRANGEMENTS

A. Description

- 1. Each ELEC may at its sole option and discretion establish meetpoint billing arrangements with an ILEC in order to provide Switched Access Services to third parties via an ILEC access tandem switch, in accordance with the Meet-Point Billing and Provisioning guidelines adopted by the Ordering and Billing Forum, except as modified herein.
- 2. Except in instances of capacity limitations, ILEC shall allow ELEC to sub-tend the ILEC access tandem switch(es) nearest to the ELEC Rating Point(s) associated with the NPA-NXX(s) to/from which the Switched Access Services are homed. In instances of capacity limitation at a given access tandem switch, ELEC shall be allowed to sub-tend the next-nearest ILEC access tandem switch in which sufficient capacity is available.
- 3. Except in those instances where ELEC and ILEC have negotiated mutually-agreeable alternative network interconnection arrangements, interconnection for the meet-point arrangement shall occur at the D-NIP nearest to the ILEC access tandem.

- 4. Common channel signalling ("CCS") shall be utilized in conjunction with meet-point billing arrangements to extent that such signaling is resident in the ILEC access tandem switch.
- 5. ELEC and ILEC will use their best reasonable efforts, individually and collectively, to maintain provisions in their respective federal and state access tariffs, and/or provisions within the National Exchange Carrier Association ("NECA") Tariff No. 4, or any successor tariff, sufficient to reflect this meet-point billing arrangement.
- 6. ELEC and ILEC will in a timely fashion exchange all information necessary to accurately, reliably and promptly bill third parties for Switched Access Services traffic jointly handled by ELEC and ILEC via the meet-point arrangement. Information shall be exchanged in Electronic Message Interface format.

8. <u>Compensation</u>

- A. At ELEC's option, billing to 3rd-parties⁵ for the Switched Access Services jointly provided by ELEC and ILEC via the meet-point arrangement shall be according to the single-bill/single tariff method, single-bill/multiple-tariff method, multiple-bill/single-tariff method.
- B. Where ELEC specifies one of the single-bill methods, ILEC shall calculate the charges to 3rd-parties utilizing the rates specified in ELEC' and ILEC's respective federal and state access tariffs, in conjunction with the appropriate meet-point billing percentage factors specified for each meet-point arrangement either in those tariffs or in the NECA No. 4 tariff. ILEC shall bill and collect from 3rd-parties, promptly remitting to ELEC the total collected meet-point revenues associated with the jointly handled switched access traffic, less that percentage of local transport element charges to which ILEC is entitled pursuant to the above-referenced tariff provisions.

Including, as necessary, call detail records, interstate/intrastate/intraLATA percent of use factors, carrier name and billing address, carrier identification codes, serving wire center designation, etc., associated with such switched access traffic.

Including any future ILEC separate interexchange subsidiaries.

For purposes of clarification, this does not include the interconnection charge, which is to be remitted to the end office provider, which in this case would be ELEC.

VI. RECIPROCAL TRAFFIC EXCHANGE ARRANGEMENT

A. <u>Description</u>

LECs shall reciprocally terminate POTS calls originating on each others' networks. Except in those instances where two (or more) LECs have negotiated mutually-agreeable alternative network interconnection arrangements, reciprocal traffic exchange shall occur as follows:

- 1. LECs shall make available to each other interconnection facilities for the reciprocal exchange of POTS traffic at each D-NIP. The POTS reciprocal traffic exchange facilities established between any two LECs shall be configured as two separate trunk groups, whereby the first LEC shall utilize the first trunk group to terminate traffic to the second LEC, and the second LEC shall utilize the second trunk group to terminate traffic to the first LEC.
- 2. The connections between the interconnection trunk groups shall be made at a DS-1 or multiple DS-1 level (including SONET) and shall be jointly-engineered to an objective P.01 grade of service.
- 3. Initial connections shall be made at an aggregate network level per D-NIP, such that a single trunk group shall be established in each direction between the two LEC networks at each D-NIP, unless otherwise agreed to by the two LECs.

	e total traffic in either direction
	ECs (other than the ILEC with the
greatest traffic in the LATA) is le	ess than per
for a sustained period of	, the ILEC which carries the
greatest amount of traffic with	in the LATA shall allow those two
LECs to route traffic between	their respective networks via the
aggregate traffic exchange trun	k groups each LEC maintains with
the ILEC for the exchange of	f traffic with the ILEC. In such
instances, ILEC shall route traff	ic between the two LECs as if the
originating LEC network was a	single switching entity within the
ILEC's own network.	

4.	Whenever the total traffic in either direction between discrete switching entities in two separate LEC networks exceeds
	, per for a sustained period of
	, disaggregated traffic exchange trunk group paths
	shall be established between those two switching entities at the
	option of either LEC. The interconnection architecture shall be the
	same as that which pertained for the aggregated connections.

- 5. Each party shall deliver to each other party POTS traffic addressed to each NPA-NXX at the D-NIP associated with the D-NID in which the Rating Point associated with such NPA-NXX is located.
- 6. LECs will provide Common Channel Signalling (CCS) to one another, where and as available, in conjunction with all traffic exchanged at a D-NIP. LECs will cooperate on the exchange of TCAP messages to facilitate full inter-operability of CCS-based features between their respective networks, including all CLASS features and functions. All CCS signalling parameters will be provided including automatic number identification (ANI), originating line information (OLI) calling party category, charge number, etc. All privacy indicators will be honored. For traffic for which CCS is not available, in-band multi-frequency (MF), wink start, E&M channel-associated signalling with ANI will be forwarded.
- LECs shall establish company-wide CCS interconnections STP-to-STP. Such interconnections shall be made at one or more D-NIPs, as necessary.
- 8. Either party may, upon 60 days advance written notice to the other party, utilize a D-NIP arrangement to carry non-POTS traffic which would otherwise be carried to or from the same NPA-NXXs via Feature Group D ("FGD") Switched Access Service which that party would otherwise purchase from the other party. All non-POTS traffic carried over the traffic exchange arrangement shall be subject to the applicable tariffed FGD Switched Access charges which would otherwise apply to such traffic, as described below.

B. Compensation

- 1. A POTS call handed-off at the D-NIP corresponding to the D-NID in which the call is ultimately terminated, shall be exchanged on an in-kind basis, with no charges applying in either direction. No CCS-associated charges shall apply for the termination of POTS traffic.
- 2. A POTS call which is routed between two LECs via the aggregate traffic exchange trunk groups which each LEC maintains between its own network and the network of the largest ILEC operating in the LATA, shall be exchanged on an in-kind basis, with no charges applying in either direction between the two LECs at either end of the call. However, the LEC on whose network the call originated shall pay the ILEC the lesser of: (1) ILEC's interstate Switched

Access Service per minute tandem switching rate element; (2) ILEC's intrastate Switched Access Service per minute tandem switching rate element; or (3) a per minute rate of \$0.002. Should non-POTS traffic be exchanged over such arrangements, in either direction, such traffic will be subject to the standard meet-point billing compensation and procedures which would otherwise apply.

- 3. FGD charges for non-POTS traffic carried over a D-NIP arrangement shall be calculated as follows:
 - a. FGD charges for non-POTS traffic shall be applied as if the D-NIP is the serving wire center for the FGD service.
 - b. Non-POTS traffic which would otherwise be subject to originating FGD charges will be rated and billed according to procedures which otherwise apply for the rating and billing of originating FGD traffic.
 - c. Non-POTS traffic which would otherwise be subject to terminating FGD charges will be rated and billed according to the procedures which otherwise apply for the rating and billing of terminating FGD traffic, with the following modifications:
 - (1) The initial written notification that non-POTS traffic will be carried over the D-NIP arrangement shall include percentage of use factors for POTS traffic, intrastate non-POTS traffic, and interstate non-POTS traffic (the sum of which should equal 100%) the party expects to terminate over the traffic exchange arrangement.
 - (2) The initial estimated percentages shall be employed by the billing party to rate and bill all traffic terminated over the D-NIP, beginning on the date on which non-POTS traffic is initially terminated over the D-NIP arrangement, up to and including the last day of the calendar quarter following the quarter in which such terminations were initiated.
 - (3) Beginning with the calendar quarter immediately following the calendar quarter in which termination of non-POTS traffic was initiated, by the 45th day of each new calendar quarter, the actual terminating

traffic percentages from the immediately preceding calendar quarter shall be provided for application in the next following calendar quarter. The party receiving such traffic shall utilize these percentages in calculating the terminating traffic exchange charges, terminating intrastate FGD charges, and terminating interstate FGD charges due from the other party.

VII. SHARED NETWORK PLATFORM ARRANGEMENTS

A. Interconnection Between ELECs Co-Located in an ILEC Wire Center

1. Description

ILEC will enable any two ELECs to directly interconnect their respective networks, where both ELECs maintain co-location facilities at the same ILEC wire center, by effecting a cross-connection between those co-location facilities, as jointly directed by the two ELECs.

2. Compensation

For cross-connections between two ELEC co-location facilities in the same ILEC wire center, ILEC will charge each ELEC one-half the standard tariffed special access cross-connect rate.

B. 9-1-1/E9-1-1

1. <u>Description</u>

- a. ELEC will interconnect to the ILEC 9-1-1/E-9-1-1 hub(s) serving the areas in which ELEC provides exchange services, for the provision of 9-1-1/E9-1-1 services and for access to all sub-tending Public Safety Answering Points.
- b. Except in those instances where ELEC and ILEC have negotiated mutually-agreeable alternative network interconnection arrangements, interconnection shall be made at the D-NIP designated by ILEC for 9-1-1/E-9-1-1 interconnection.
- ILEC and ELEC will arrange for the automated input and daily updating of 9-1-1/E-9-1-1 database information related to ELEC end users.

d. ILEC will use its best efforts to facilitate the prompt, robust, reliable and efficient interconnection of ELEC systems to the 9-1-1/E-9-1-1 platforms.

2. Compensation

[To be defined based on local 9-1-1 funding methodology and arrangements with independent LECs].

C. Information Services Billing and Collection

1. Description

- Except in those instances where ELEC and ILEC have a. mutually-agreeable alternative negotiated network interconnection arrangements, ELEC shall deliver information services traffic originated over ELEC's Exchange Services to information services provided over ILEC's information services platform (e.g., 976) over the reciprocal traffic exchange trunk groups interconnected at the D-NIP designated by the ILEC for receipt of such traffic.
- b. ILEC will at ELEC's option provide a direct real-time electronic feed or a monthly magnetic tape in a mutually-specified format, listing the appropriate billing listing and effective daily rate for each information service by telephone number.
- c. To the extent ELEC determines to provide a competitive information services platform, ILEC will cooperate with ELEC to develop a LATA-wide NXX code(s) which ELEC may use in conjunction with such platform. Additionally, ILEC shall route calls to such platform and ELEC will provide billing listing/daily rate information on terms reciprocal to those specified above.

2. Compensation

a. ELEC will bill and collect from its end users the specific end user calling rates ILEC bills its own end users for such services, unless ELEC obtains tariff approval from the Public Utilities Commission ("PUC") specifically permitting ELEC to charge its end users a rate different than the rate set forth in ILEC's tariff for such services.

- b. ELEC will remit the full specified charges for such traffic each month to ILEC, less \$0.05 per minute, and less uncollectibles.
- c. In the event ELEC provides an information service platform, ILEC shall bill its end users and remit funds to ELEC on terms reciprocal to those specified above.

D. <u>Directory Listings and Directory Distribution</u>

1. <u>Description</u>

The directory listings and distribution terms and rate specified in this section shall apply to listings of ELEC customer numbers falling within NXX codes directly assigned to ELEC, and to listings of ELEC customer telephone numbers which are retained by ELEC pursuant to Local Telephone Number Portability Arrangements described below.

- a. ILEC will include ELEC's customers' telephone numbers in its "White Pages" and "Yellow Pages" directory listings and directory assistance databases associated with the areas in which ELEC provides services to such customers, and will distribute such directories to such customers, in the identical and transparent manner in which it provides those functions for its own customers' telephone numbers.
- b. ELEC will provide ILEC with its directory listings and daily updates to those listings in a format required by ILEC; ILEC will provide ELEC a magnetic tape or computer disk containing the proper format.
- c. ELEC and ILEC will accord ELEC' directory listing information the same level of confidentiality which ILEC accords its own directory listing information, and ILEC shall ensure that access to ELEC's customer proprietary confidential directory information will be limited solely to those ILEC employees who are directly involved in the preparation of listings.

2. Compensation

a. ILEC shall remit to ELEC a royalty payment for sales of any bulk directory lists to third parties, where such lists include ELEC customer listings.

b. Such royalty payments shall be in proportion to the number of ELEC listings to ILEC listings contained in the list purchased by the third party, less 10% which ILEC may retain as sales commission.

E. Directory Assistance (DA)

1. <u>Description</u>

At ELEC' request, ILEC will:

- a. provide to ELEC operators or to an ELEC-designated operator bureau on-line access to ILEC's directory assistance database, where such access is identical to the type of access ILEC's own directory assistance operators utilize in order to provide directory assistance services to ILEC end users;
- b. provide to ELEC unbranded directory assistance service ELEC which is comparable in every way to the directory assistance service ILEC makes available to its own end users:
- c. provide to ELEC directory assistance service under ELEC's brand which is comparable in every way to the directory assistance service ILEC makes available to its own end users;
- d. allow ELEC or an ELEC-designated operator bureau to license ILEC's directory assistance database for use in providing competitive directory assistance services; and/or
- e. in conjunction with VII.E.1.b. or VII.E.1.c., above, provide caller-optional directory assistance call completion service which is comparable in every way to the directory assistance call completion service ILEC makes available to its own and users.

2. Compensation

ILEC will charge ELEC:

- a. \$0.0_ per directory assistance database query.
- b. \$0.0_ per unbranded directory assistance call.

- c. \$0.0 per branded directory assistance call.
- d. \$___ for licensing of each directory assistance database.
- e. \$0.0_ per use of caller-optional directory assistance call completion.

F. Yellow Page Maintenance

ILEC will work cooperatively with ELEC to ensure that Yellow Page advertisements purchased by customers who switch their service to ELEC (including customers utilizing ELEC-assigned telephone numbers and ELEC customers utilizing co-carrier number forwarding) are maintained without interruption. ILEC will allow ELEC customers to purchase new yellow pages advertisements without discrimination, at non-discriminatory rates, terms and conditions. ILEC and ELEC will implement a commission program whereby ELEC may act as a sales, billing and collection agent for Yellow Pages advertisements purchased by ELEC's exchange service customers.

G. Transfer of Service Announcements

When an end user customer changes from ILEC to ELEC, or from ELEC to ILEC, and does not retain its original telephone number, the party formerly providing service to the end user will provide a transfer of service announcement on the abandoned telephone number. This announcement will provide details on the new number to be dialed to reach this customer. These arrangements will be provided reciprocally, free of charge to either the other carrier or the end user customer.

H. Coordinated Repair Calls

ELEC and ILEC will employ the following procedures for handling misdirected repair calls:

- 1. ELEC and ILEC will educate their respective customers as to the correct telephone numbers to call in order to access their respective repair bureaus.
- 2. To the extent the correct provider can be determined, misdirected repair calls will be referred to the proper provider of local exchange service in a courteous manner, at no charge, and the end user will be provided the correct contact telephone number. Extraneous

communications beyond the direct referral to the correct repair telephone number are strictly prohibited.

3. ELEC and ILEC will provide their respective repair contact numbers to one another on a reciprocal basis.

I. Busy Line Verification and Interrupt

1. Description

Each LEC shall establish procedures whereby its operator bureau will coordinate with the operator bureaus of each other LEC operating in the LATA in order to provide Busy Line Verification ("BLV") and Busy Line Verification and Interupt ("BLVI") services on calls between their respective respective end users. BLV and BLVI inquiries between operator bureaus shall be routed over the Reciprocal Traffic Exchange Trunk groups.

2. <u>Compensation</u>

Each LEC shall compensate each other LEC for BLV and BLVI inquiries according to the following rates:

	per inquiry
BLV	\$0.
BLVI	\$ 0

VIII. UNBUNDLED EXCHANGE SERVICE ARRANGEMENTS

A. Description

ILEC shall immediately unbundle all its Exchange Services into two separate packages: (1) link element plus cross-connect element; and (2) port element plus cross-connect element. The following link and port categories shall be provided:

Link Categories	Port Categories
2-wire analog voice grade	2-wire analog line
2 wire ISDN digital grade	2-wire ISDN digital line
4-wire DS-1 digital grade	2-wire analog DID trunk
	4-wire DS-1 digital DID trunk

ILEC shall unbundle and separately price and offer these elements such that ELEC will be able to lease and interconnect to whichever of these unbundled elements ELEC requires, and to combine the ILEC-provided elements with any facilities and services that ELEC may itself provide, in order to efficiently offer telephone services to end users, pursuant to the following terms:

- 1. Interconnection shall be achieved via co-location arrangements ELEC shall maintain at the wire center at which the unbundled elements are resident.
- 2. At ELEC' discretion, each link or port element shall be delivered to the ELEC co-location arrangement over an individual 2-wire hand-off, or in multiples of 24 over a digital DS-1 hand-off in any combination or order ELEC may specify.
- 3. All transport-based features, functions, service attributes, gradesof-service, install, maintenance and repair intervals which apply to the bundled service should apply to unbundled links.
- 4. All switch-based features, functions, service attributes, grades-ofservice, and install, maintenance and repair intervals which apply to the bundled service should apply to unbundled ports.
- 5. ILEC will permit any customer to convert its bundled service to an unbundled service and assign such service to ELEC, with no penalties, rollover, termination or conversion charges to ELEC or the customer.
- 6. ILEC will bill all unbundled facilities purchased by ELEC (either directly or by previous assignment by a customer) on a single consolidated statement per wire center.
- 7. Where ILEC utilizes digital loop carrier ("DLC")⁷ technology to provision the link element of an bundled Exchange Service to an end user customer who subsequently determines to assign the link element to ELEC and receive Exchange Service from ELEC via such link, ILEC shall deliver such link to ELEC on an unintegrated basis, pursuant to ELEC' chosen hand-off architecture, without a degradation of end user service or feature availability.

See, Bellcore TR-TSY-000008, Digital Interface Between the SLC-96 Digital Loop Carrier System and Local Digital Switch and TR-TSY-000303, Integrated Digital Loop Carrier (IDLC) Requirements, Objectives, and interface.

8. ILEC will permit ELEC to co-locate remote switching modules and associated equipment in conjunction with co-location arrangements ELEC maintains at an ILEC wire center, for the purpose of interconnecting to unbundled link elements.

B. Compensation

ILEC shall provide links and ports to ELEC at the following monthly recurring rates:

- '	Price, each when	delivered over:
	an individual	a digital
	2-wire hand-off	DS-1 hand-off
2-wire analog voice grade link	\$	\$
2 wire ISDN digital grade link	\$	\$
4-wire DS-1 digital grade link	\$n/a	\$6
2-wire analog line port	\$	\$
2-wire ISDN digital line port	\$	\$
2-wire analog DID trunk port	\$	\$
4-wire DS-1 digital DID trunk port	\$ <u>n/a</u>	\$

IX. LOCAL TELEPHONE NUMBER PORTABILITY ARRANGEMENTS

A. Description

ILEC and ELEC will provide Local Telephone Number Portability ("LTNP") on a reciprocal basis between their networks to enable each of their end user customers to utilize telephone numbers associated with an Exchange Service provided by one carrier, in conjunction an Exchange Service

To be provided as a Special Access or Private Line DS-1 Channel Termination/Local Distribution Channel, subject to the most favorable tariff or contract terms for which ELEC is eligible, except in those situations where:

The ILEC offers its own end user customers a bundled DS-1 digital grade Exchange Service at a bundled rate which is less than the sum of the unbundled 4-wire DS-1 digital DID trunk port rate and the most favorable Channel Termination/Local Distribution Channel rate for which ELEC is eligible. In such instances, the ILEC shall provide 4-wire DS-1 digital grade links to ELEC at a rate less than or equal to the price of the bundled DS-1 digital grade Exchange Service less the unbundled 4-wire DS-1 digital DID trunk port rate, for ELEC's use in the provision of DS-1 digital grade Exchange Services.

and/or

The ILEC offers its own end user customers a bundled DS-1 digital grade Exchange Service with performance specifications (including, but not limited to, installation intervals, service intervals, service priority, bit-error rates, interruption/availability rates, quality or conditioning) superior to that provided for Special Access or Private Line Channel Terminations/Local Distribution Channels. In such instances, the ILEC shall provide the same or better performance characteristics to ELEC for all DS-1 ELEC purchases for use in the provision of DS-1 digital grade ExchangeServices.

provided by the other carrier, upon the coordinated or simultaneous termination of the first Exchange Service and activation of the second Exchange Service.

- 1. ELEC and ILEC will provide reciprocal LTNP immediately upon execution of this agreement via Interim Number Portability ("INP") measures. ILEC and ELEC will migrate from INP to a database-driven Permanent Number Portability ("PNP") arrangement as soon as practically possible, without interruption of service to their respective customers.
- 2. INP shall operate as follows:
 - A customer of Carrier A elects to become a customer of Carrier B. The customer elects to utilize the ojiginal telephone number(s) corresponding to the Exchange Service(s) it previously received from Carrier A, in conjunction with the Exchange Service(s) it will now receive from Carrier B. Upon receipt of a signed letter of agency from the customer assigning the number to Carrier B, Carrier A will implement one of the following arrangements:
 - (1) For the portability of telephone numbers which are not part of a DID number block, Carrier A will implement an arrangement whereby all calls to the original telephone number(s) will be forwarded to a new telephone number(s) designated by Carrier B. Carrier A will route the forwarded traffic to Carrier B via the mutual traffic exchange arrangements, as if the call had originated from the original telephone number, and terminated to the new telephone number.
 - (2) For the portability of telephone numbers which are part of a DID number block, Carrier A will provide Carrier B an aggregated, digital DS-1 or higher grade DID trunk group at each D-NIP (interface to be achieved in the same manner as the traffic exchange trunk groups at each D-NIP), such that all inbound traffic to ported DID numbers will be delivered to Carrier B over this digital DID trunk facility. In order for a customer to port its DID numbers from Carrier A to Carrier B, the customer will be required to assign entire 20-number DID blocks to Carrier B.

- b. Carrier B will become the customer of record for the original Carrier A telephone numbers subject to the INP arrangements. Carrier A will provide Carrier B a single consolidated master billing statement each month for all collect and 3rd-number billed calls associated with those numbers, with sub-account detail by retained number.
- c. Carrier A will update its Line Information Database ("LIDB") listings for retained numbers, and restrict or cancel calling cards associated with those forwarded numbers, as directed by Carrier B.
- d. Within two (2) business days of receiving notification from the customer, Carrier B shall notify Carrier A of the customer's termination of service with Carrier B, and shall further notify Carrier A as to the Customer's instructions regarding its telephone number(s). Carrier A will cancel the INP arrangements for the customer's telephone number(s). If the Customer has chosen to retain its telephone number(s) for use in conjunction with Exchange Services provided by Carrier A or by another LEC which participates in INP arrangements with Carrier A, Carrier A will simultaneously transition the number(s) to the customer's preferred carrier.
- 3. Under either an INP or PNP arrangement, ELEC and ILEC will deliver consolidated billing statements to one another in magnetic tape formats which are compatible with their respective systems in order to re-bill their end users for collect, calling card and 3rd-number billed calls. Additionally, ELEC and ILEC will implement a process to coordinate LTNP cut-overs with Unbundled Link conversions (as described in Paragraph VIII., above). ELEC and ILEC pledge to use their best efforts to ensure that LTNP arrangements will not be utilized in instances where a customer changes locations and would otherwise be unable to retain its number without subscribing to foreign exchange service.

B. <u>Compensation</u>

1. ELEC and ILEC shall provide LTNP (either INP or PNP) arrangements to one another at no charge, except for authorized collect, calling card and 3rd-number billed calls billed to the retained numbers. However, for all traffic forwarded between ELEC and ILEC in the manner described above, reciprocal compensation charges (pursuant to paragraph VI., above) and

Switched Access charges (pursuant to each carrier's respective access tariffs), for POTS traffic and non-POTS traffic, respectively, shall be passed through as if the caller had directly dialed the new telephone number.

2. In INP arrangements, in order to effect this pass-through of reciprocal compensation and Switched Access charges to which each carrier would otherwise have been entitled if the ported traffic had been directly dialed to the new number, each carrier will be required to classify and include ported traffic in its quarterly percentage of use reports as POTS, intrastate non-POTS, or interstate non-POTS.

X. RESPONSIBILITIES OF THE PARTIES

- A. ILEC and ELEC agree to treat each other fairly, non-discriminatorily, and equally for all items included in this agreement, or related to the support of items included in this agreement.
- B. ELEC and ILEC will work cooperatively to minimize fraud associated with 3rd-number billed calls, calling card calls, or any other services related to this agreement.
- C. ELEC and ILEC agree to promptly exchange all necessary records for the proper billing of all traffic.
- D. For network expansion, ELEC and ILEC will review engineering requirements on a quarterly basis and establish forecasts for trunk utilization. New trunk groups will be implemented as dictated by engineering requirements for both ILEC and ELEC. ILEC and ELEC are required to provide each other the proper call information (i.e. originated call party number and destination call party number, CIC, OZZ, etc.) to enable each company to bill accordingly.
- E. There will be no re-arrangement, reconfiguration, disconnect, or other non-recurring fees associated with the initial reconfiguration of each carrier's traffic exchange arrangements upon execution of this agreement, other than the cost of establishing a new co-location arrangement where one does not already exist.
- F. ILEC shall assess no cross-connect fee on ELEC where ELEC establishes a meet-point billing connection, a D-NIP interconnection, or accesses a 911 or E911 port through a co-location arrangement at a ILEC wire center.

XI. TERM

XII. INSTALLATION

ILEC and ELEC shall effectuate all the terms of this agreement by _____

XIII. NETWORK MAINTENANCE AND MANAGEMENT

ELEC and ILEC will work cooperatively to install and maintain a reliable network. ELEC and ILEC will exchange appropriate information (e.g., maintenance contact numbers, network information, information required to comply with law enforcement and other security agencies of the Government, etc.) to achieve this desired reliability.

ELEC and ILEC will work cooperatively to apply sound network management principles by invoking network management controls to alleviate or to prevent congestion.

XIV. OPTION TO ELECT OTHER TERMS

If, at any time while this agreement is in effect, either of the parties to this agreement provides arrangements similar to those described herein to a third party operating within the same LATAs as for which this agreement applies, on terms different from those available under this agreement (provided that the third party is authorized to provide local exchange services), then the other party to this agreement may opt to adopt the rates, terms, and conditions offered to the third party for its own reciprocal arrangements with the first party. This option may be exercised by delivering written notice to the first party. The party exercising its option under this paragraph must continue to provide services to the first party as required by this agreement, subject either to the rates, terms, and conditions applicable to the third party or to the rates, terms, and conditions of this agreement, whichever is more favorable to the first party.



RECTIVE

Bob Scheye Senior Director Strategy Development Core Business

SEL S. 1995

Room 11A15 675 West Peachtree Street, N.E. Atlanta, Georgia 30375 (404) 420-8327

September 19, 1995

Mr. Tim Devine MFS 250 Williams Street Suite 2200 Inforum Building Atlanta. GA 30303

المنظمين المنطق المرد المن عيدي الأنط المتقسس دسم

Dear Tim:

As we discussed, BellSouth is working toward filing local interconnection and unbundling tariffs in both Georgia and Florida later this year. The attached worksheet lists items and price ranges that could be included in these filings. We are requesting your input of demand forecasts for each of these items. This information is intended for tariff filing purposes only and your company data will not be identified uniquely. Further, this information will not be used for any other purposes by BellSouth.

We request that you keep this document confidential within your company and not share it outside your company for any reason. Please contact me at your convenience if you have any questions or concerns.

NOTE: Please provide data for Georgia and Florida separately. Simply write in Florida (where Georgia is shown) on the attachment if you are providing information for that state.

Gob Schen

DATE: 09-12-95

UNBUNDLED PRODUCTS AND SERVICES

EXISTING AND NEW SERVICE RATE ELEMENTS			APPROXIMATE RATE LEVEL RANGE		INDIVIDUAL STATE DEMAND		
Inbundled Exchange Line			RECURRING / PER	NON- RECURRING / PER	YR. 1	YR. 2	YR, 3
Voice Grade Special Access Service Private Line Service Local Channel - Per Point of Termination - Voice - 2W Local Channel - Per Point of Termination - Type 2230			\$25.00 /month-pt, of term. \$25.00 /month-pt, of term.	\$275.00 / First / LC \$110.00 / Add1 / LC \$345.00 / First Term \$115.00 / Add1 Term			
'nbundled Exchange Port	Port - Residence Port - Business Port - Usage	uem uem	\$1.75 - \$4.00 /month \$4.00 - \$11.00 /month \$0.02 /cell \$0.02 /minute				
nterim Number Portability-RCF	Residence Business		\$1,25 - \$4.00 /month \$1,25 - \$5.00 /month	\$15.00 - \$25.00 \$25.00 - \$40.00	,		
ocal Interconnection	Per Terminating Minute		\$.020 - \$.045	••			
ignaling	Port Link Usage (Surrogate)	new	\$350.00 /month \$150.00 /month \$250.00 /month - link	-			
lumber Services	DA Branding / per call DACC / per call DA Intercept / per call	uem uem uem	\$0.05 /call \$0.20 /call \$0.30 /call	=			
A Access Service	DA Service Call		\$0.25 - \$0.35 /cell	-			
ŕ	Directory Transport - Switched Common - Switched Common - Access Tandem Switching		\$0.00030 /DA acc.svc.call \$0.00004 /DA acc.svc.call ml. \$0.00055 /DA acc.svc.call	= =			
	DA Interconnection		\$.00269 - \$.00338/DA acc.evc.cell				,
00 Database Service	OLEC STP Connecting to BST Regional STP OLEC SSP Equipped Switch Connecting to		\$,0035 - \$.0045 /query	-			
	BST Local STP		\$.0035 - \$.0045 /query	-			

ST is neither obligated to provide these services nor to offer them at the rates indicated.

This information is for negotiating purposes only and shall be kept confidential. It cannot be used by either party in any evidentiary proceeding.

DATE: 09-12-95

UNBUNDLED PRODUCTS AND SERVICES

EXISTING AND NEW SERVICE	RATE ELEMENTS		APPROXIMATE RA	ATE LEVEL RANGE	IND	IVIDUAL S	STATE
Operator Services	Operator Call Handling		RECURRING / PER	NON RECURRING / PER	YR. 1	YR. 2	YR. 3
	- Live Operator Assisted - Fully Automated	new	\$1.50 /work minute \$0.25 /attempt				1
	Operator Transfer Service		\$0.35				
	Inward Operator Services - Verification - Emergency Interrupt		\$0,90 /ea. occurrence \$1.95 /ea. occurrence	-			
Collocation	Application Fee (per location) Cable Installation Charge (per cable) Cable Support Structure (per cable)		_	\$2,848.30 \$2,750.00			
	Cross Connect Per DS1		\$13.35 \$7.50	\$155.00 / First			
	Cross Connect Per DS3		\$56.25	\$14.00 / Add'l \$151.90 / First \$11.63 / Add'l			
	Floor Space - per Square Foot Power		\$3.20	-		i.	
	- per Ampere Training, per Trainee		\$3.48	•••			
ą.	- Living Expenses, per Day - Labor Rate, 1st 1/2 hr. & ea. addil 1/2 or		-	\$136.67			
Ÿ.	fraction thereof: - Air Fare/Travel Expense, per Trip		<u> </u>	\$36.40 - \$40.90 \$555.00	,		
	Security Escort - Basic Time, normally sched, work hours - OT, outside of normally sched, work hours		-	\$25.00 - \$41.00			ļ
ſ	on a sched, work day - Premium Time, outside of sched, work day			\$30.00 - \$48.00 \$35.00 - \$55.00	ľ		

STATE: GEORGIA

UNBUNDLED PRODUCTS AND SERVICES

DATE: 09-12-95

EXISTING AND NEW SERVICE	RATE ELEMENTS		APPROXIMATE R	ATE LEVEL RAN	IGE	INDI	VIDUAL ST DEMAND	ATE
			RECURRING / PER	NON RECURRING	/ PER	YR. 1	YR. 2	YR. 3
Non-Sent Paid Report System	Per Cail		\$.05 - \$.15 / call	-				
LIDB Validation Service	LIDB Access		PLU Based					
	CCS7 Signaling Terminations CCS7 Signaling Terminations	PLU+ PLU+		_	*			
		-LU+		-				
	LIDB Common Transport LIDB Validation NOTE: the PLU will be applied to the termination rates based on the percent of local usage.		\$0.00030 /LIDB query \$0.03800 /LIDB query	_				
White Page Listings	One per Customer		No Charge	-				
Centralized Message Distribution Service (CMDS)	Message Distribution Data Transmission		\$0,004 /message \$0,001 /message					
Unbundled Loop Concentration			Under Development					
911 Service			Under Development					



BELLSOUTH STRATEGIC DEVELOPMENT CORE BUSINESS 11A15 Southern Bell Center 675 W. Peachtree Street, NE Atlanta, GA 30375

MESSAGE TO:		Phone #:	Fax #:	
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9/25/95

PRIVILEGED AND CONFIDENTIAL
SUBJECT TO THE ATTORNEY-CLIENT
PRIVILEGE AND WORK PRODUCT DOCTRINE

Stipulation and Agreement

This Stipulation and Agreement is entered into by and between the undersigned parties to Docket No. 950696-TP, addressing the establishment of an interim universal service/carrier of last resort recovery mechanism pursuant to Section 364.025, Florida Statutes; Docket No. 950737-TP, addressing a temporary telephone number portability pursuant to Section 364.16(4), Florida Statutes; Docket No. 950984-TP, addressing unbundling and resale of local exchange telecommunications company network features, functions and capabilities pursuant to Section 364.161, Florida Statutes; and Docket No. 950985-TP, addressing the establishment of nondiscriminatory rates, terms and conditions for local interconnection pursuant to Section 364.162, Florida Statutes.

It is the undersigned parties' intention and agreement that this comprehensive Stipulation and Agreement will establish the prices, terms, conditions and mechanisms necessary to facilitate the introduction and development of local exchange competition, as required by Chapter Law 95-403, and will dispose of all outstanding issues in the aforementioned dockets. This Stipulation and Agreement also sets forth the undersigned parties' agreement with respect to matters which relate to the introduction of local competition but which are not addressed in Chapter law 95-403 or in any of the Commission's docketed proceedings.

9/25/95

PRIVILEGED AND CONFIDENTIAL
SUBJECT TO THE ATTORNEY-CLIENT
PRIVILEGE AND WORK PRODUCT DOCTRINE

The undersigned parties agree that the issues addressed in the aforementioned proceedings, which have been framed in response to the requirements of Chapter Law 95-403, shall be resolved as follows:

A. Universal Service/Carrier of Last Resort - Docket No. 950696-TP

Section 364.025, Florida Statutes, requires the Commission to establish an interim universal service/carrier of last resort ("US/COLR") recovery mechanism by January 1, 1996. This interim mechanism is to be applied in a manner that ensures that each alternative local exchange company ("ALEC") contributes its fair share of the local exchange telecommunications company's ("LEC's") recovery of investment in fulfilling its carrier of last resort obligations and the maintenance of universal service objectives. The statute further provides that the Commission shall ensure that the interim mechanism, which is to remain in effect until not later than January 1, 2000, does not impede the development of residential consumer choice or create an unreasonable barrier to competition.

The undersigned parties stipulate and agree to the interim universal service/carrier of last resort (US/COLR) recovery mechanism proposed by BellSouth (Alternative 1) in the direct testimony and associated exhibits of BellSouth's witnesses Alphonso J. Varner and Peter F. Martin, dated August 14, 1995, in this docket. In the event this BellSouth-proposed US/COLR

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PRIVILEGED AND CONFIDENTIAL SUBJECT TO THE ATTORNEY-CLIENT PRIVILEGE AND WORK PRODUCT DOCTRINE

recovery mechanism is adopted and implemented by the Commission, each ALEC payment will be based upon its proportionate share of applicable revenues. The undersigned parties agree for purposes of determining payments for the period January 1, 1996 through December 31, 1997, the applicable revenues will be zero and no payments will be due. Thereafter, each ALEC will be billed under the BellSouth-proposed US/COLR recovery mechanism. The undersigned parties agree that for the period after December 31, 1997, the parties may renegotiate the foregoing provision to the extent permitted by Florida law and Commission rules.

The undersigned parties agree to use their best efforts to persuade the Commission to adopt BellSouth's proposed interim US/COLR recovery mechanism - Alternative 1, which efforts will include the undersigned parties, other than BellSouth, withdrawing their testimony and amending their prehearing statements to the extent such testimony and prehearing statements are inconsistent with this Stipulation and Agreement.

The undersigned parties further stipulate and agree that, except as provided for in Section 364.025(3), Florida Statutes, this interim US/COLR recovery mechanism shall remain in force and effect until the Florida Legislature establishes a permanent US/COLR recovery mechanism, but not later than January 1, 2000. The undersigned parties also agree to use their best efforts

Applicable revenues means revenues associated with the ALEC's provision of basic local exchange services and their associated vertical or ancillary services, and associated vertical or ancillary services.

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PRIVILEGED AND CONFIDENTIAL
SUBJECT TO THE ATTORNEY-CLIENT
PRIVILEGE AND WORK PRODUCT DOCTRINE

to persuade the Commission and the Legislature to establish a permanent US/COLR recovery mechanism at the earliest possible date.

B. Temporary Telephone Number Portability - Docket No. 950737-TP

At the Commission's regular agenda conference held on September 12, 1995, the Commission approved the Stipulation and Agreement of the parties to Docket No. 950737-TP, which addressed every issue relating to the implementation of a temporary telephone number portability solution, except the price to be charged for the temporary telephone number portability solution. The undersigned parties agree that the Commission-approved Stipulation and Agreement shall be incorporated herein by reference and be attached to this Stipulation and Agreement as Attachment A.

With regard to the price to be paid for remote call forwarding, which is the agreed-upon temporary telephone number portability solution, the undersigned parties agree to pay \$1.__per line, per month, plus a non-recurring setup charge of \$___per line equipped with, and \$___per order for, remote call forwarding used for service provider telephone number portability. For additional paths, the undersigned parties agree to pay \$1.__per month, per additional path, plus a non-recurring set-up charge of \$___per additional path and \$___per order. To the

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PRIVILEGED AND CONFIDENTIAL
SUBJECT TO THE ATTORNEY-CLIENT
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extent location portability is involved, i.e., movement of the customer to a different location, the rates applicable to end users for remote call forwarding would be charged.

C. Unbundling and Resale of Local Exchange Telecommunications Company Network Features, Functions and Capabilities - Docket No. 950984-TP

Section 364.161, Florida Statutes, requires each LEC, upon request, to unbundle each of its network features, functions and capabilities, including access to signaling data bases, systems and routing process, and offer them to any other telecommunications provider requesting such features, functions or capabilities for resale to the extent technically and economically feasible and at prices that are not below cost. The statute also requires that the parties first negotiate the terms, conditions and prices of any feasible unbundling request. If the parties cannot reach a satisfactory resolution within 60 days, either party may petition the Commission to arbitrate the dispute and the Commission shall make a determination within 120 days.

The undersigned parties have now satisfactorily resolved the terms, conditions and prices of those network features, functions and capabilities that are technically and economically feasible of unbundling, including the following:

- Local Telephone Number Portability
- Centralized Message Distribution Service (CMDS)
- Directory Assistance (DA)

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- Access to Emergency Services (911)
- Access to 800 DataBase
- Access to Operator Services
- White Page Listings and Directories
- Signaling
- Access to Numbers
- Line Identification DATABASE Service (LIDB)
- Exchange Lines and Ports
- Access to Poles, Ducts and Conduits

D. Local Interconnection - Docket No. 950985-TP

Section 364.162. Florida Statutes, provides that an ALEC shall have until August 31, 1999, or sixty (60) days, to negotiate with the LEC mutually acceptable prices, terms and conditions of interconnection and for the resale of services and facilities. The statute also provides that if the parties are not able to negotiate a price by August 31, 1995, or within sixty days, either party may petition the Commission to establish non-discriminatory rates, terms and conditions of interconnection and for the resale of services and facilities. Whether set by

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negotiation or by the Commission, interconnection and resale prices, rates, terms and conditions shall be filed with the Commission before their effective date.

The parties were unable to negotiate mutually acceptable prices, terms and conditions of interconnection by August 31, 1995, or within sixty days, and one party, Teleport Communications Group ("TCG"), has filed a petition with the Commission to establish the rates, terms and conditions of local interconnection. After further negotiations, however, the undersigned parties now agree to the following prices, terms and conditions of local interconnection:

- 1. Local interconnection is defined as the delivery of local traffic to be terminated on each company's local network. The delivery of local traffic shall be reciprocal and compensation will be mutual. Each ALEC will pay BellSouth, and vice versa. For purposes of charging for local interconnection, BellSouth will employ its intrastate switched network access service traffic sensitive rate elements on a per minute of use basis for terminating local traffic. Each undersigned ALEC will have rates that are no higher than those charged by BellSouth.
- 2. In order to mitigate the potential adverse impact on a local exchange provider (i.e., BellSouth or an ALEC) which might occur because of an imbalance of terminating local traffic between the local exchange providers, no local exchange

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provider will be required to compensate the other local exchange provider for more than one-hundred-ten percent (110%) of the minutes of use of the local exchange provider with the lower minutes of use in the same month. For example, if in a given month BellSouth has 10,000 minutes of local traffic terminated on an ALEC's local exchange network and the ALEC has 15,000 minutes of local traffic terminated in BellSouth's local exchange network, the ALEC would be required to compensate BellSouth for local interconnection on the basis of 11,000 terminating minutes (10,000 mins. x 110% = 11,000 mins.).

- 3. BellSouth will provide intermediary tandem switching and transport to connect the end user of an ALEC to the end user of another ALEC, a LEC other than BellSouth, or wireless telecommunications service provider for the purpose of making a local call. When BellSouth provides this intermediary function, it will bill a \$.002 per minute charge over and above its local interconnection charge that applies when a BellSouth end user is involved.
- 4. When BellSouth provides intermediary functions for network access, i.e., between an IXC and an ALEC, the ALEC and BellSouth will each provide their own network access service elements on a meet-point basis. Each carrier will bill its

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own network access service rate elements to the IXC. BellSouth, however, will bill the residual interconnection charge ("RIC") to the IXC.

5. Whenever BellSouth delivers traffic to an ALEC for termination on the ALEC's network, if BellSouth cannot determine whether the traffic will be local or toll because of the manner in which the ALEC uses NNX codes, BellSouth will not compensate the ALEC for local interconnection but will, instead, charge the ALEC originating intrastate network access service charges unless the ALEC can provide BellSouth with sufficient information to make a determination as to whether the traffic is local or toll.

Because the undersigned parties lack sufficient data with respect to the volumes of local terminating traffic being delivered to each LEC and ALEC, the prices, terms and conditions of local interconnection agreed to herein are deemed transitional and are to remain in effect for a two (2) year period ending December 31, 1997, and the undersigned parties agree to renegotiate the prices, terms and conditions prior to the end of the two (2) year period, based on specific traffic data. This period can be extended for up to six months if ALEC is unable to get into business because the ALEC is unable to obtain trunks, NNXs, etc. from BellSouth in a timely fashion.

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It is further understood and agreed that TCG will dismiss its petition filed with the Commission in this docket.

E. Other Issues and Matters

In addition to the issues and matters relating to the introduction of local exchange competition addressed in Chapter Law 95-403, and identified in the aforementioned proceedings established by the Commission, there are other technical, and operational issues and matters relating to the introduction of local exchange competition which the undersigned parties are currently negotiating.

F. Resolution of Disputes

The undersigned parties agree that if any dispute arises as to the interpretation of any provision of this Stipulation and Agreement or as to the proper implementation of any of the matters agreed to in this Stipulation and Agreement the parties will petition the Commission for a resolution of the dispute.

G. Liability for Damages

Nothing contained in this Stipulation and Agreement shall make any undersigned party liable for money damages nor shall this Stipulation and Agreement give rise to any action for

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the recovery of money damages from any undersigned party whether such action is brought by another undersigned party or by a third party. There are no intended or unintended third-party beneficiaries to this Stipulation and Agreement.

H. Duration

This Stipulation and Agreement takes effect on September ___, 1995, and remains in effect until each of the matters and issues addressed herein has been implemented or resolved as contemplated by the undersigned parties, or until January 1, 2000, whichever occurs later.

I. Representations

Each person signing this Stipulation and Agreement represents that he or she has the requisite authority to bind the party on whose behalf the person is signing. By signing this Stipulation and Agreement, each undersigned party represents that it agrees to each of the stipulations and agreements set forth herein. In the event there are parties to the aforementioned dockets that do not sign this Stipulation and Agreement, the comprehensive resolution of the issues set forth in this Stipulation and Agreement shall, nonetheless, be binding upon the undersigned parties. Each undersigned party commits to use its best efforts to persuade the Commission, prior to and during the hearings scheduled in the aforementioned dockets, to accept the stipulations agreed to by the undersigned parties.

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J. | Limitation of Use

The undersigned parties understand and agree that this Stipulation and Agreement was entered into to resolve issues and matters which are unique to the State of Florida because of regulatory precedent and legislative requirements. The undersigned parties therefore agree that none of the agreements and stipulations contained herein shall be proffered by an undersigned party in another jurisdiction as evidence of any concession or as a waiver of any position taken by another undersigned party in that jurisdiction or for any other purpose.



South ESI1 3535 Colonnade Parkway Birmingham, Alabama 35243

October 6, 1995

Tim Devine
MFS Communications Company, Inc.
250 Williams Street
Suite 2200
Atlanta, GA 30303

Dear Tim,

Bob Scheye asked me to send you our thoughts on the major issues concerning your proposed stipulation agreement. The attached comments are designed to provide clarification on BST's positions on the major points you listed, but may not include all of BST's concerns with your document.

After you have had a chance to review the attached, please give Bob Scheye a call to discuss in more detail. If you need to contact me, I can be reached at 205-977-2213.

Sincerely

Jerry Latham

Manager - Local Interconnection Interconnection Marketing

Attachment

Issues for MFS Response

Definitions

- It should be noted that BST's interim number portability offering is not designed to provide service transparency.
- Initially, BST plans to provide a 2-wire voice grade unbundled loop and a 2-wire voice grade unbundled port.

Default Network Interconnection Architecture

- BST plans to interconnect with all ELECs at the BST tandem and/or wire center level for the purpose of originating/terminating local traffic to/from ELECs within a LATA. We are uncertain how a D-NID and a D-NIP correspond to BST's wire centers, tandems, LATAs, etc. and would prefer to use existing terminology to describe the interconnection arrangement.
- BST has no plans to offer a mid-fiber meet with any interconnector.
- BST does not plan to waive charges for the cross-connection of collocation facilities.
- Normal tariff charges should apply for rearrangements, conversions, rollovers, etc...

Meet-Point Billing Arrangements

- BST does not plan to use the OBF guidelines for OLEC interconnection and proposes a new document that is designed specifically for OLEC arrangements.
- BST would exchange records with OLECs using Exchange Message Record (EMR) format as opposed to Electronic Message Interface (EMI) format.
- BST plans to offer multiple bill, single tariff billing.
- Paragraph B.B. on page 12 should be deleted in its entirety.
- Footnote 6 on page 12 refers to the interconnection charge being remitted to the end office company. It is BST's intention to bill this as the tandem provider.

Reciprocal Traffic Exchange Arrangements

- BST does not support a bill-and-keep arrangement for local traffic exchange with OLECs and would expect to be compensated separately when it performs an intermediary function.
- BST and the OLEC would each provide a trunk for terminating local traffic to each other. Additional trunks would be required from the OLEC to BST for the provisioning of other types of traffic such as Operator Services, IXC, etc..
- When BST provides an intermediary function between an OLEC and an company for the purposes of completing local calls, BST proposes to charge r local interconnection charges plus an additional intermediary fee to the orientity.

Issues for MFS Response

- BST plans to offer signaling interconnection at a tariffed rate to all interconnectors. This will include link and port elements. The port charge would initially be a flat-rated surrogate until BST could develop and bill a usage-sensitive charge.
- BST plans to charge the OLEC originating FGD access charges for non-local calls that are passed to the OLEC from a BST end-user that is located within the local calling area.

Shared Network Platform Arrangements

- Normal tariffed rates would apply for each interconnector that utilizes a collocation arrangement.
- BST does not offer Information Services Billing and Collections today and does not expect to offer this to the OLECs as a part of our unbundled tariff.
- BST does not plan to pay a royalty on the sale of directory listings.
- BST proposes to provide Busy Line Verification and Interrupt services via its existing tariffs.

Unbundled Exchange Service Arrangements

- BST will provide an unbundled 2-wire voice grade loop and a 2-wire analog port in its initial tariff filing package.
- BST proposes that an ELEC will not be allowed to combine an unbundled loop with an unbundled port when both elements are provided by BST.
- BST will interface with the OLECs at a DS-1 level for the purposes of delivering unbundled loops and ports to the OLEC's facilities.
- BST will work cooperatively to provide unbundled loops to the OLECs on an unintegrated basis where practicable. However, BST would like to better understand what MFS means by "unintegrated".
- BST's collocation tariff does not allow collocators to place switching equipment in a collocation space.
- BST will provide Remote Call Forwarding (RCF) and/or Direct Inward Dialing (DID) technology at a tariffed rate for OLECs wishing to port numbers from BST's network to the OLEC. BST will pay a terminating interconnection charge to the OLEC for these calls but will retain the switched access charges on interLATA calls that terminate through the BST network using RCF or DID.



BELLSOUTH STRATEGIC DEVELOPMENT CORE BUSINESS 11A15 Southern Bell Center 675 W. Peachtree Street, NE Atlanta, GA 30375

Date: 10-11 Number of pages inc		n <u>26</u>		
MESSAGE TO:	2	Phone #:		1: 24-6060
FROM: Michelle Brightwell (404) 529-5250	Lydia Hunlen (404) 529-2659	David Meyers (404) 614-4955	Bob Scheye (404) 420-83	
Gloria Calhoun (404) 529-5579 Dwayne Crumley	Lamar May (404) 529-0522 Ellen Mitchell	Sara Murray (404) 420-8164 Cindy Preston	Charlotte Sh (404) 420-63 William Suitt	338 (404) 420-6336 Tom Woodliff
(404) 529-5948 Jan Hester (404) 614-4945 REMARKS:	(404) 330-0420	(404) 529-5538	(404) 529-61	
☐ Urge	nt 🛚 For your i	review 🛘 Reply ASAI	Please	comment

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Stipulation and Agreement

This Stipulation and Agreement is entered into by and between the undersigned parties to Docket No. 950985-TP, addressing the establishment, on an interim basis, of nondiscriminatory rates, terms and conditions for local interconnection pursuant to Section 364.162, Florida Statutes; Docket No. 950696-TP, addressing the establishment of an interim universal service/carrier of last resort recovery mechanism pursuant to Section 364.025, Florida Statutes; Docket No. 950737-TP, addressing a temporary telephone number portability solution, e.g., Remote Call Forwarding pursuant to Section 364.16(4), Florida Statutes; and Docket No. 950984-TP, addressing unbundling and resale of local exchange telecommunications company network features, functions and capabilities pursuant to Section 364.161, Florida Statutes.

It is the undersigned parties' intention and understanding agreement that this comprehensive Stipulation and Agreement will establish the interim prices, terms, conditions and mechanisms necessary to facilitate the introduction and development of local exchange competition, as required by the above-referenced sections of Florida Chapter Law 95-403, and will dispose of all outstanding issues in the aforementioned dockets. This Stipulation and Agreement also sets forth the undersigned parties' agreement with respect to other matters which relate to the Petition filed by Teleport Communications Group, Inc. (TCG) in Docket No. 950985-TP.

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A. Local Interconnection - Docket No. 950985-TP

Section 364.162, Florida Statutes, provides that an ALEC shall have until August 31, 1995, or sixty (60) days, to negotiate with the LEC mutually acceptable prices, terms and conditions of interconnection and for the resale of services and facilities. The statute also provides that if the parties are not able to negotiate a price by August 31, 1995, or within sixty days, either party may petition the Commission to establish non-discriminatory rates, terms and conditions of interconnection and for the resale of services and facilities. Whether set by negotiation or by the Commission, interconnection and resale prices, rates, terms and conditions shall be filed with the Commission before their effective date.

The parties were unable to negotiste mutually acceptable prices, terms and conditions of interconnection by August 31, 1995, or within sixty days, and one party, Teleport Communications Group ("TCG"), has filed a petition with the Commission to establish the rates, terms and conditions for interconnection and the exchange of traffic with BellSouth. After

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further negotiations, however, the undersigned parties now agree to the following <u>interim</u> prices, terms and conditions for interconnection and the exchange of traffic:

Local interconnection is defined as the delivery of local traffic to be terminated on each company's local network. The delivery of local traffic shall be reciprocal and compensation will be mutual. Each ALEC will pay BellSouth, and vice versa, unless it is mutually agreed that the administrative costs associated with local interconnection are greater than the net monies exchanged, in which case the parties will exchange local traffic on an in-kind basis; foregoing compensation in the form of cash or a cash equivalent. In the absence of an in-kind traffic exchange, the parties will compensate each other pursuant to BellSouth's intrastate switched network access rate elements. (See Attachment A which is incorporated herein by reference.) For purposes of charging for local interconnection. BellSouth will employ its intrastate switched network access service traffic sensitive rate elements - exclusive of the Residual Interconnection Charge and the Carrier Common Line Charge - on a per minute of use basis for terminating local traffic. Each undersigned ALEC will have rates that are no higher than those charged by BellSouth.

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- In order to mitigate the potential adverse impact on a local exchange provider (i.e., BellSouth or an ALEC) which might occur because of an imbalance of terminating local traffic between the local exchange providers, and to reflect the fact that terminating costs are associated with peak period demand, no local exchange provider will be required to compensate the other local exchange provider for more than one-hundred-ten percent (110%) of the minutes of use of the local exchange provider with the lower minutes of use in the same month. For example, if in a given month BellSouth has 10,000 minutes of local traffic terminated on an ALEC's local exchange network and the ALEC has 15,000 minutes of local traffic terminated on BellSouth's local exchange network, the ALEC would be required to compensate BellSouth for local interconnection on the basis of 11,000 terminating minutes (10,000 mins. x 110% = 11,000 mins.).
- 3. BellSouth will provide intermediary tandem switching and transport to connect the end user of an ALEC to the end user of another ALEC, a LEC other than BellSouth, or wireless telecommunications service provider for the purpose of making a local call. When BellSouth provides this intermediary function, it will bill a \$.002 per minute charge over and above its local interconnection charge that applies when a BellSouth end user is involved.

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- 4. When BellSouth or an ALEC provides intermediary functions for network access, i.e., between an IXC and an ALEC, the ALEC and BellSouth will each provide their own network access service elements on a meet-point basis. Each carrier will bill its own network access service rate elements to the IXC. For interstate traffic, however, BellSouth or the ALEC will bill the residual interconnection charge ("RIC") to the IXC when either provides the intermediary tandem function.
- 5. Whenever BellSouth delivers traffic to an ALEC for termination on the ALEC's network, if BellSouth cannot determine whether the traffic will be local or toll because of the manner in which the ALEC uses NNX codes, BellSouth will not compensate the ALEC for local interconnection but will, instead, charge the ALEC originating intrastate network access service charges unless the ALEC can provide BellSouth with sufficient information to make a determination as to whether the traffic is local or toll. Provided, however, that the ALEC has access to a sufficient quantity of numbering sources. In the event the ALEC cannot determine whether traffic delivered to BellSouth is local or toll, then the same provisions shall also apply.

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BellSouth has proposed an interim universal service/carrier of last resort 6. mechanism in testimony and exhibits submitted by A.J. Varner and P.F. Martin, dated August 14, 1995, in Docket No. 950696-TP. The adoption of Alternative 1. as described in the testimony and exhibits, would allow BellSouth to eliminate the carrier common line and residual interconnection rate elements from intrastate switched access rates (and interstate if the same plan were adopted by the FCC for Florida).1 The rates for local interconnection and terminating switched network access associated with intrastate toll calls (and interstate, if adopted by the FCC) would be identical and the undersigned parties could terminate all traffic regardless of its jurisdiction local and intrastate tell fand interstate. potentially) traffic at the same rates notwithstanding Section 364,16(3)(a), Florida Statutes. However, if BellSouth's proposed Alternative 1 is not adopted by the Commission and the intrastate terminating switched access rates consequently differ from the local interconnection rates, the parties recognize that the local interconnection arrangements agreed to herein are may not be appropriate and are null and void. In that event, the parties will begin to negotiate different local

Even with the elimination of the CCL and RIC elements from the intrastate switched network access service, there will still be a S.0012 per minute residual amount in the interstate switched network access rates.

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Even with the elimination of the CCL and RIC elements from the intrastate switched network access service, there will still be a 5.0012 per minute residual amount in the interstate switched network access rates.

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interconnection arrangements as expeditiously as possible. These negotiation should include some interim arrangements that could become effective on January 1, 1996, while further negotiations or Commission proceedings, if necessary continue. The parties stipulate and agree that the terms, conditions and price ultimately ordered by the Commission, or negotiated by the parties, will be effective retroactive to January 1, 1996.

Because the undersigned parties lack sufficient data with respect to the volumes of local terminating traffic being delivered to each LEC and ALEC, the prices, terms and conditions of local interconnection agreed to herein are deemed transitional and are to remain in effect for a two (2) year period ending December 31, 1997, and the undersigned parties agree to renegotiate the prices, terms and conditions prior to the end of the two (2) year period, based on specific traffic data. This period can be extended for up to six months if an ALEC is unable to operate because the ALEC is unable to obtain the necessary local interconnection arrangements, NNXs etc. from BellSouth in a timely fashion.

The undersigned parties stipulate and agree that the local interconnection and traffic arrangements agreed to herein are interim and that the parties, no later than July 1, 1997, shall commence negotiations with regard to the terms, conditions and prices of interconnection arrangements to be effective beginning January 1, 1998. If the parties are unable to

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satisfactorily negotiate new interconnection terms, conditions and prices within 90 days, any party may petition the Commission to establish appropriate interconnection arrangements. The parties will encourage the Commission to issue its order by not later than December 31, 1997. In the event the Commission does not issue its order prior to January 1, 1998, or if the parties continue to negotiate the interconnection arrangements beyond January 1, 1998, the parties stipulate and agree that the terms, conditions and prices ultimately ordered by the Commission, or negotiated by the parties, will be effective retroactive to January 1, 1998. Until the revised interconnection arrangements become effective, the parties shall continue to exchange traffic.

It is further understood and agreed that TCG will dismiss without prejudice its petition filed with the Commission in this docket.

B. Unbundling and Resale of Local Exchange Telecommunications Company Network Features, Functions and Capabilities - Docket No. 950984-TP

Section 364.161, Florida Statutes, requires each LEC, upon request, to unbundle each of its network features, functions and capabilities, including access to signaling data-bases, systems and routing process, and offer them to any other telecommunications provider requesting such features, functions or capabilities for resale to the extent technically and economically feasible and at prices that are not below cost. The statute also requires that the parties first negotiate the terms, conditions and prices of any feasible unbundling request. If the parties

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cannot reach a satisfactory resolution within 60 days, either party may petition the Commission to arbitrate the dispute and the Commission shall make a determination within 120 days.

The undersigned parties have now satisfactorily resolved the terms, conditions and prices of those network features, functions and capabilities that are technically and economically feasible of unbundling as set forth in Attachment B which is incorporated herein by reference. It is understood by the parties that the list of network features, functions and capabilities is not exhaustive and the parties commit to cooperate in the percentation of additional network features.

C. Universal Service/Carrier of Last Resort - Docket No. 950696-TP

Section 364.025, Florida Statutes, requires the Commission to establish an intering universal service/carrier of last resort ("US/COLR") recovery mechanism by January 1, 1996. This interim mechanism is to be applied in a manner that ensures that each alternative local exchange company ("ALEC") contributes its fair share of the local exchange telecommunications company's ("LEC's") recovery of investment in fulfilling its carrier of last resort obligations and the maintenance of universal service objectives. The statute further provides that the Commission shall ensure that the interim mechanism, which is to remain in effect until the implementation of a permanent mechanism, but not later than January 1, 2000, ensures the

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maintenance of universal service through a carrier of last resort, but does not impede the development of residential consumer choice or create an unreasonable barrier to competition.

The undersigned parties stipulate and agree that the interim universal service/carrier of last resort (US/COLR) recovery mechanism proposed by BellSouth (Alternative 1) in the direct testimony and associated exhibits of BellSouth's witnesses Alphonso J. Varner and Peter F. Martin, dated August 14, 1995, will meet the requirements of Florida law concerning the interim US/COLR mechanism. Notwithstanding the foregoing, the parties are entering this Stipulation and Agreement as a result of negotiations and compromise and for the purpose of facilitating the development of local exchange competition as intended by the Florida Legislature. Accordingly the parties in no way waive their right to petition the Commission pursuant to Section 364.025(3), Florida Statutes. In the event the BellSouth-proposed US/COLR recovery mechanism - Alternative 1 - is adopted and implemented by the Commission, each ALEC payment required thereby will be based upon its proportionate share of assessable revenues. The undersigned parties also agree that, in order to assure that the proper amounts of assessable

Assessable revenues means revenues associated with the ALEC's provision of basic local telecommunications services - as defined in Section 364.02(2), Florida Statutes - and their associated vertical or ancillary services and network access services. Assessable revenues do not include ALEC revenues received from basic local telecommunications services offered at a price comparable to the incumbent LEC's or Lifeline service or from local interconnection and network access services.

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revenues are being reported and the associated amounts of assessments are being collected, the Commission shall periodically audit each telecommunications service provider's appropriate records.

The undersigned parties agree for purposes of determining payments from the ALEGS for the period January 1, 1996 through December 31, 1997, the assessable explicable revenues will be zero and no payments will be due. Thereafter, each ALEC will be billed under the BellSouth-proposed US/COLR recovery mechanism. The undersigned parties agree that for the period after December 31, 1997, the parties may renegotiate the foregoing provisions to the extent permitted by Florida law and Commission rules.

The undersigned parties agree to use their best efforts to persuade the Commission to adopt BellSouth's proposed interim US/COLR recovery mechanism - Alternative 1. The undersigned parties also agree to use their best efforts to persuade the Commission and the Legislature to establish a permanent US/COLR recovery mechanism at the earliest possible date.

D. Temporary Telephone Number Portability - Docket No. 950737-TP

At the Commission's regular agenda conference held on September 12, 1995, the Commission approved the Stipulation and Agreement of the parties to Docket No. 950737-TP, which addressed every issue relating to the implementation of a temporary telephone number portability solution, except the price to be charged for the temporary telephone number

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portability solution and the advantages and disadvantages of Remote Call Porwarding. The undersigned parties agree that the Commission-approved Stipulation and Agreement shall be incorporated herein by reference and be attached to this Stipulation and Agreement as Attachment C.

With regard to the price to be paid for remote call forwarding, which is the temporary telephone number portability solution to be implemented January 1, 1996, the undersigned parties agree to pay \$1.50 per line, per month, plus a non-recurring charge of no more than \$25.00 per order for remote call forwarding used between carriers. For additional paths, the undersigned parties agree to pay \$.75 per month, per additional path, plus a non-recurring charge of no more than \$25.00 per order. To the extent location portability is involved, i.e., movement of the customer to a different location, the rates applicable to end users for remote call forwarding would be charged.

In the event that an ALEC and the interexchange carriers have direct connections (i.s. no BellSouth tandem is involved) for all traffic except for terminating traffic through remote call forwarding (necessitating the inclusion of a BellSouth tandem), then the access revenues associated with these calls will be due to the ALEC.

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E. Resolution of Disputes

The undersigned parties agree that if any dispute arises as to the interpretation of any provision of this Stipulation and Agreement or as to the proper implementation of any of the matters agreed to in this Stipulation and Agreement the parties will petition the Commission for a resolution of the dispute. However, each undersigned party reserves any rights it may have to seek judicial review of any ruling made by the Commission concerning this Stipulation and Agreement.

F. Duration

This Stipulation and Agreement takes effect on September ____, 1995, and remains in effect until each of the matters and issues addressed herein has been implemented or resolved as contemplated by the undersigned parties.

G. Representations

Each person signing this Stipulation and Agreement represents that he or she has the requisite authority to bind the party on whose behalf the person is signing. By signing this Stipulation and Agreement, each undersigned party represents that it agrees to each of the stipulations and agreements set forth herein. In the event there are parties to the aforementioned dockets that do not sign this Stipulation and Agreement, the comprehensive resolution of the

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issues set forth in this Stipulation and Agreement shall, nonetheless, be binding upon the undersigned parties. Each undersigned party commits to use its best efforts to persuade the Commission, prior to and during the hearings scheduled in the aforementioned dockets, to accent the stipulations agreed to by the undersigned parties. The undersigned parties further agree that in the event the Commission does not adopt this Stipulation and Agreement in its entirety, the Stipulation and Agreement shall, nonetheless, be binding upon the parties as if it had been adopted by the Commission, except as set forth elsewhere in this Stipulation and Agreement herein. The undersigned parties also stipulate and agree that the Commission shall, immediately upon approval of this Stipulation and Agreement, close Docket Nos. 950737-TP, 950984-TP and 950985-TP. The undersigned parties further agree that the Commission shall keep open Docke No. 950696-TP solely for the purpose of: (1) implementing the adoption of BellSouth's proposed interim US/COLR recovery mechanism - Alternative 1; and (2) for purposes of satisfying the Legislature's mandate to the Commission to research the issue of a permanent US/COLR mechanism and to determine and recommend a reasonable and fair mechanism for providing to the greatest number of customers basic local exchange telecommunications service at an affordable price.

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H. Limitation of Use

The undersigned parties understand and agree that this Stipulation and Agreement was entered into to resolve issues and matters which are unique to the State of Florida because of regulatory precedent and legislative requirements. The undersigned parties therefore agree that none of the agreements and stipulations contained herein shall be proffered by an undersigned party in another jurisdiction as evidence of any concession or as a waiver of any position taken by another undersigned party in that jurisdiction or for any other purpose.

I. Waivers

Any failure by any undersigned party to insist upon the strict performance by any other entity of any of the provisions of this Stipulation and Agreement shall not be deemed a waiver of any of the provisions of this Stipulation and Agreement, and each undersigned party, notwithstanding such failure, shall have the right thereafter to insist upon the specific performance of any and all of the provisions of this Stipulation and Agreement.

J. Governing Law

This Stipulation and Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Florida, without regard to its conflict of laws principles.

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K. Purposes

The undersigned parties acknowledge that this Stipulation and Agreement is being entered into for the purposes of complying with the requirements of Florida Chapter Law 95-403 with respect to negotiating the matters at issue in Docket Nos. 950737-TP, 950984-TP and 950985-TP; and in order to avoid the expense and uncertainty inherent in resolving the matters at issue in Docket No. 95696-TP. Neither this Stipulation and Agreement nor any action taken to reach, effectuate or further this Stipulation and Agreement may be construed as, or may be used as an admission by or against any party. Entering into or carrying out this Stipulation and Agreement or any negotiations or proceedings related thereto, shall not in any event be construed as, or deemed to be evidence of, an admission or concession by any of the undersigned parties, or to be a waiver of any applicable claim or defense, otherwise available, nor does it indicate that any party other than BellSouth believes that a universal service "subsidy" exists or is necessary beyond what has historically been recognized as a "toll-to-local" subsidy in the switched access charge rate design.

L. Arm's Length Negotiations

This Stipulation and Agreement was executed after arm's length negotiations between the undersigned parties and reflects the conclusion of the undersigned that this Stipulation and Agreement is in the best interests of all the undersigned parties.

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M. Joint Drafting

The undersigned parties participated jointly in the drafting of this Stipulation and Agreement, and therefore the terms of this Stipulation and Agreement are not intended to be construed against any undersigned party by virtue of draftsmanship.

N. Single Instrument

This Stipulation and Agreement may be executed in several counterparts, each of which, when executed, shall constitute an original, and all of which shall constitute but one and the same instrument.

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day of	, 1995, by the undersigned representatives	for the parties here!	0

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ATTACHMENT A

BELLSOUTH FLORIDA - INTRASTATE SWITCHED ACCESS

Rate Elements	Proposed 11/04/95	With BellSouth Alternative 1 Proposal
Carrier Common Line		
Originating	\$0.01061	
Terminating	\$0.02927	
Transport ¹		
DS1 Local Channel - Entrance Facility	\$0.00062	\$0.00062
Residual Interconnection Switched Common Transport	\$0.005159	
per minute of use per mile	\$0.00004	\$0.00004
Facilities Termination per MOU	\$0.00036	\$0.00036
Access Tandem Switching	\$0.00074	\$0.00074
Local Switching 2	\$0.00876	\$0.00876
		\$0.01052 ²

1 Assumptions:

- Tandem Connection with Common Transport
- No Collocation
- DS1 local channel @ 9000 minutes per month and 24 voice grade equivalents

² If BellSouth's Alternative 1 proposal is adopted by the Florida Public Service Commission, this will also be the local interconnection rate.

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ATTACHMENT B

UNBUNDLED NETWORK FEATURES, FUNCTIONS AND CAPABILITIES

The parties to the Stipulation and Agreement have negotiated the following terms, conditions and prices relating to unbundled network features, functions and capabilities:

(1) Access to 911/E911 Emergency Network.

For basic 911 service, BellSouth will provide a list consisting of each municipality in Florida that subscribes to Basic 911 service. The list will also provide the E911 conversion date and for network routing purposes a ten-digit directory number representing the appropriate emergency answering position for each municipality subscribing to 911 service. Each ALEC will arrange to accept 911 calls from its customers in municipalities that subscribe to Basic 911 service and translate the 911 call to the appropriate 10-digit directory number as stated on the list provided by BellSouth and route that call to BellSouth at the appropriate tandem or end office. When a municipality converts to E911 service the ALEC shall discontinue the Basic 911 procedures and begin the E91 procedures.

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For E911 service, the ALEC will connect the necessary trunks to the appropriate.

E911 tandem, including the designated secondary tandem. If a municipality has converted to E911 service, the ALEC will forward 911 calls to the appropriate E911 primary tandem, along with ANI, based upon the current E911 end office to tandem homing arrangement as provided by BellSouth. If the primary tandem trunks are not available, the ALEC will alternate route the call to the designated secondary E911 tandem. If the secondary tandem trunks are not available, the ALEC will alternate route the call to the appropriate Traffic Operator Position System (TOPS) tandem.

In order to ensure the proper working of the system, along with accurate customer data, the ALEC will provide daily updates to the E911 data-base. BellSouth will work cooperatively with the ALEC to define record layouts, media requirements, and procedures for this process.

In some instances BellSouth is responsible for maintenance of the E911 data-base and is compensated for performing these functions by either the municipality or the ALEC - for maintaining the ALEC's information. In no event, however.

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shall BellSouth be entitled to compensation from both parties for the same function.

(2) Directory Listings and Directory Distribution.

BellSouth will include ALEC's customers' primary listings in the white page (residence and business listings) and yellow page (business listings) directories, as well as the directory assistance data-base, as long as the ALEC provides information to BellSouth in a manner compatible with BellSouth's operational systems. BellSouth will not charge the ALECs to (a) print their customers' primary listings in the white pages and yellow page directories; (b) distribute directory books to their customers; (c) recycle their customers' directory books; and (d) maintain the Directory Assistance data-base. BellSouth will work cooperatively with the ALECs on issues concerning lead time, timeliness, format, and content of listing information.

(3) IntraLATA 800 Traffic.

BellSouth will compensate ALECs for the origination of 800 traffic terminated to BellSouth pursuant to the ALEC's originating switched access charges, including the data-base query. The ALEC will provide to BellSouth the appropriate records

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necessary for BellSouth to bill its customers. The records will be provided in a standard ASR format for a fee of \$0.015 per record. At such time as an ALEC elects to provide 800 services, the ALEC will reciprocate this arrangement. Should BellSouth be permitted to provide interLATA 800 services prior to the expiration of this Stipulation and Agreement, BellSouth will be responsible for compensating the ALEC for the origination of such traffic as well on the same terms and conditions as described above.

(4) Number Resource Administration.

So long as BellSouth continues to act as the local administrator of the North American Numbering Plan, BellSouth will assign and administer Central Office Codes (NNX/NXX) consistent with the industry developed "Central Office Code (NNX/NXX) Assignment Guidelines." This document was last published by Bellcore on November 16, 1994 as IL-94/11-013.

(5) Busy Line Verification/Emergency Interrupt Services.

BellSouth and the ALECs shall mutually provide each other busy line verification and emergency interrupt services pursuant to tariff.

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(6) Network Design and Management.

BellSouth and the ALECs will work cooperatively to install and maintain reliable interconnected telecommunications networks. A cooperative effort will include, but not be limited to, the exchange of appropriate information concerning network changes that impact services to the local service provider, maintenance contact numbers and escalation procedures. The interconnection of all networks will be based upon accepted industry/national guidelines for transmission standards and traffic blocking criteria. BellSouth and the ALECs will work cooperatively to apply sound network management principles by invoking appropriate network management controls, i.e., call gapping, to alleviate or prevent network congestion. It is BellSouth's intention not to charge rearrangement reconfiguration, disconnect, or other non-recurring fees associated with the initial reconfiguration of each carrier's interconnection arrangements. However, each ALEC's interconnection reconfigurations will have to be considered individually as to the application of a charge.

(7) CLASS Interoperability.

BellSouth and the ALECs will provide LEC-to-LEC Common Channel Signathing (CCS) to one another, where available, in conjunction with all traffic in order to

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enable full interoperability of CLASS features and functions. All CCS signalling parameters will be provided including automatic number identification (ANI), originating line information (OLI) calling party category, charge number, etc. All privacy indicators will be honored, and BellSouth and the ALECs will cooperate on the exchange of Transactional Capabilities Application Part (TCAP) messages to facilitate full inter-operability of CCS-based features between their respective networks.

(8) Network Expansion.

For network expansion, BellSouth and the ALECs will review engineering requirements on a quarterly basis and establish forecasts for trunk utilization. New trunk groups will be implemented as dictated by engineering requirements for both BellSouth and the ALEC. BellSouth and the ALEC are required to provide each other the proper call information (i.e., originated call party number and destination call party number, CIC, OZZ, etc.) to enable each company to bill accordingly.

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(9) Signaling.

In addition to CLASS interoperability, as discussed above, BellSouth will offer use of its signaling network on an unbundled basis at tariffed rates. Signaling functionality will be available with both A-link and B-link connectivity.

AFFIDAVIT OF TIMOTHY T. DEVINE

I, Timothy T. Devine, do hereby swear as follows:

At approximately 4:15 p.m. on Monday, October 30, 1995 I received a voice mail message from Robert C. Scheye, Senior Director, BellSouth Telecommunications, Inc. which stated as follows:

Tim, this is Bob Scheye from BellSouth returning your call. If you want to make an alternate proposal for Florida, I'd certainly be willing to talk to you about it. Obviously, you know we're not going to be willing to agree to something that deviates a huge amount from that, but I don't know that we have to foreclose discussions. That agreement is predicated upon the universal service fund plan. If for some reason that plan doesn't go into effect, we're going to have to reconsider anyhow because that's the way it's written, so if you've got an alternate proposal that you'd like to put in the hopper that's at least in line with that thing to some degree, I think we ought to talk about it. I don't have any problem discussing it, so give me a call at your convenience at 420-8237.

Based on this voice mail, and conversations I have had with Mr. Scheye, it is my understanding at this date that BellSouth will require that its universal service proposal be a part of any interconnection or unbundling agreement with MFS-FL in Florida Docket 95-0985-TP or Florida Docket 95-0984-TP. Because MFS-FL does not believe that the inclusion of universal service issues is appropriate in either of these dockets, I have come to the conclusion at this date that MFS-FL and BellSouth will not reach a negotiated settlement in either of these dockets.

Dated: November 10, 1995

Timothy T. Devine

Senior Director, External and

Regulatory Affairs

MFS Communications Company, Inc.

CO-CARRIER NUMBER FORWARDING ARRANGEMENTS

<u>Description</u> Dominant Local Exchange Company ("DLEC") and Competitive Local Exchange Company ("CLEC") will provide Co-Carrier Number Forwarding ("CCNF") arrangements to one another on a reciprocal basis, as an interim measure to emulate true local number portability. The arrangement shall operate as follows:

- A customer of Carrier A elects to become a customer of Carrier B. The customer elects to utilize the original telephone number(s) corresponding to the exchange service(s) it previously received from Carrier A, in conjunction with the exchange service(s) it will now receive from Carrier B. Upon receipt of a signed letter of agency from the customer assigning the number to Carrier B, Carrier A will implement an arrangement, whereby all calls to the original telephone number(s) will be forwarded to a new telephone number(s) designated by Carrier B. Carrier A will route the forwarded traffic to Carrier B, via the mutual traffic exchange arrangements, as if the call had originated from the original telephone number and terminated to the new telephone number.
- Carrier B will become the customer of record for the original Carrier A telephone numbers subject to this arrangement, and will receive a single consolidated master billing statement each month for all collect and 3rd-number billed calls associated with those numbers, with sub-account detail by retained number. Carrier A will update its LIDB listings for retained numbers, and restrict or cancel calling cards associated with those forwarded numbers, as directed by Carrier B.

CLEC and DLEC will deliver consolidated billing statements to one another in magnetic tape formats which are compatible with their respective systems in order to re-bill their end users for collect, calling card and 3rd-number billed calls. Additionally, CLEC and DLEC will implement a process to coordinate CCNF cut-overs with Unbundled Link conversions (as described in Paragraph 1E., above). CLEC and DLEC pledge to use their best efforts to ensure that CCNF arrangements will not be utilized in instances where a customer changes locations and would otherwise be unable to retain its number without subscribing to foreign exchange service.

Compensation CLEC and DLEC shall provide this arrangement to one another at no charge, except for authorized collect, calling card and 3rd-number billed calls billed to the retained numbers. However, for all traffic forwarded by Carrier A to Carrier B via the method described above, Carrier A will compensate Carrier B as if the caller had directly dialed the new telephone number, as follows: (1) for CCNF'ed traffic from long distance carriers, Carrier A will pass through to Carrier B the full access revenues collected from interexchange carriers for such traffic; (2) for CCNF'ed POTS traffic, Carrier A will compensate Carrier B under the standard POTS reciprocal compensation plan which applies to non-CCNF'ed traffic. Carrier A will be required to classify and include forwarded traffic in its quarterly percentage of use reports as POTS, intrastate non-POTS, or interstate non-POTS.

FLORIDA CO-CARRIER STIPULATION AND AGREEMENT

The Parties, each of which currently provides or intends to provide Exchange Services over their own respective switching networks in the State of Florida, agree pursuant to this Stipulation and Agreement to extend certain arrangements to one another as described and according to the terms, conditions and pricing specified hereunder. The Parties enter into this agreement without prejudice to any positions they have taken previously, or may take in the future in any legislative, regulatory, or other public forum.

I. RECITALS & PRINCIPLES

WHEREAS, universal connectivity between common carriers is the defining characteristic of the public switched telecommunications network in which all common carriers participate; and

WHEREAS, absent such connectivity the utility of communications services to individual consumers and to society as a whole would be severely and unnecessarily diminished; and

WHEREAS, encouraging fair, efficient and reasonable connectivity of networks has been identified as being in the public interest and as a guiding principle of U.S. telecommunications policy throughout this century¹; and

WHEREAS, the events of the last three decades have made it abundantly clear that competition in communications markets has been highly beneficial to consumers and society as a whole; and

WHEREAS, it is now possible and eminently desirable to extend the benefits of competition to the local exchange services market; and

WHEREAS, the most basic prerequisite for the mere introduction of local exchange competition is the establishment of certain arrangements between and among incumbent and entrant local exchange carriers; and

WHEREAS, in order that the greatest possible benefits should accrue to consumers and society, such arrangements must: (1) allow the natural development of full, fair, efficient and effective local exchange competition; (2) allow each carrier to recognize and respond to competitive market incentives to configure robust, high quality, least-cost, efficient networks, to innovate, to optimize overall operations, to improve total customer service and customer responsiveness; and (3) ensure optimal inter-operability and service transparency to all end users, regardless of the carrier from which the end user chooses to receive service; and

Beginning at least with the "Kingsbury Commitment of 1913", wherein the Bell System, in a bid to stave off anti-trust action, committed to the United States Attorney General to, among other things, connect its networks with those of independent telephone companies.

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WHEREAS, in order for efficiency and fairness to uphold in these arrangements, it is essential that each incumbent and entrant local exchange carrier be allowed the greatest possible flexibility and discretion to develop its own basic business strategies -- especially with respect to network design, technology and capital choice and deployment, management of operating expenses, product offerings and product packaging -- and should take sole responsibility for, and bear all risks associated with its own strategies and decisions in these areas; and

WHEREAS, no carrier should be in a position to shift any burdens arising from its own unilateral decisions and strategies in these areas onto its competitors, nor be able to confiscate from a competitor any benefits arising from that competitor's own unilateral decisions and strategies; and

WHEREAS, in the service of maximum inter-operability, each incumbent and entrant local exchange carrier should be able to efficiently, flexibly, and robustly exchange traffic and signaling with every other carrier operating in the same area at well-defined and standardized points of mutually agreed interconnection;

NOW, THEREFORE, in consideration of the mutual provisions contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ELEC and ILEC hereby covenant and agree as follows:

DEFINITIONS H.

- "Automatic Number Identification" or "ANI" refers to the number Α. transmitted through the network identifying the calling party.
- "Central Office Switch", "Central Office" or "CO" means a switching В. entity within the public switched telecommunications network, including but not limited to:

"End Office Switches" which are Class 5 switches from which end user Exchange Services are directly connected and offered.

"Tandem Office Switches" which are Class 4 switches which are used to connect and switch trunk circuits between and among Central Office Switches.

Central Office Switches may be employed as combination End Office/Tandem Office switches (combination Class 5/Class 4).

"CLASS Features" (also called "Vertical Features") include: Automatic C. Call Back; Automatic Recall; Call Forwarding Busy Line/Don't Answer; Call Forwarding Don't Answer; Call Forwarding Variable; Call Forwarding - Busy Line; Call Trace; Call Waiting; Call Number Delivery Blocking Per

FLORIDA CO-CARRIER STIPULATION AND AGREEMENT

Call; Calling Number Blocking Per Line; Cancel Call Waiting; Distinctive Ringing/Call Waiting; Incoming Call Line Identification Delivery; Selective Call Forward; Selective Call Rejection; Speed Calling; and Three Way Calling/Call Transfer.

- D. "Co-Location" or "Co-Location Arrangement" is an interconnection architecture method in which one carrier extends network transmission facilities to a wire center/aggregation point in the network of a second carrier, whereby the first carrier's facilities are terminated into equipment installed and maintained in that wire center by or on the behalf of the first carrier for the primary purpose of interconnecting the first carrier's facilities to the facilities of the second carrier.
- E. "Commission" means the Florida Public Service Commission (PSC).
- F. "Common Channel Signaling" or "CCS" means a method of digitally transmitting call set-up and network control data over a special network fully separate from the public switched network that carries the actual call.
- G. "Cross Connection" means an intra-wire center channel connecting separate pieces of telecommunications equipment including equipment between separate co-location facilities.
- H. "DID" means direct inward dialing.
- 1. "DS-1" is a digital signal rate of 1.544 Mbps (Mega Bit Per Second).
- J. "DS-3" is a digital signal rate of 44.736 Mbps.
- K. "DSX panel" is a cross-connect bay/panel used for the termination of equipment and facilities operating at digital rates.
- L. "Electronic File Transfer" refers to any system/process which utilizes an electronic format and protocol to send/receive data files.
- "M. "Entrant Local Exchange Carrier" or "ELEC" means a LEC which is not the current or former incumbent Local Exchange Carrier in any geographic area.
 - N. "Exchange Message Record" or "EMR" is the standard used for exchange of telecommunications message information among Local Exchange Carriers for billable, non-billable, sample, settlement and study data. EMR format is contained in BR-010-200-010 CRIS Exchange Message

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Record, a Belicore document which defines industry standards for exchange message records.

- O. "Exchange Service" refers to all basic access line, PBX trunk, Centrex/ESSX-like services, ISDN services, or any other services offered to end users which provide end users with a telephonic connection to, and a unique telephone number address on, the public switched telecommunications network, and which enable such end users to place or receive calls to all other stations on the public switched telecommunications network.
- P. "Incumbent Local Exchange Carrier" or "ILEC" means a LEC which is currently or was previously the exclusive LEC in a given geographic area.
- Q. "Interconnection" means the connection of separate pieces of equipment, transmission facilities, etc., within, between or among networks. The architecture of interconnection may include several methods including, but not limited to co-location arrangements and mid-fiber meet arrangements.
- R. "Interexchange Carrier" or "IXC" means a provider of stand-alone interexchange telecommunications services.
- S. "Interim Number Portability" or "INP" means the transparent delivery of Local Telephone Number Portability ("LTNP") capabilities, from a customer standpoint in terms of call completion, and from a carrier standpoint in terms of compensation, through the use of existing and available call routing, forwarding, and addressing capabilities.
- T. "ISDN" means integrated Services Digital Network; a switched network service providing end-to-end digital connectivity for the simultaneous transmission of voice and data. Basic Rate Interface-ISDN (BRI-ISDN) provides for digital transmission of two 64 Kbps bearer channels and one 16 Kbps data channel (2B+D). Primary Rate Interface-ISDN (PRI-ISDN) provides for digital transmission of twenty-three (23) 64 Kbps bearer channels and one 16 Kbps data channel (23 B+D).
- U. "Line Side" refers to an end office switch connection that has been programmed to treat the circuit as a local line connected to a ordinary telephone station set. Line side connections offer only those transmission and signaling features appropriate for a connection between an end office and an ordinary telephone station set.
- V. "Link Element" or "Link" is a component of an Exchange Service; for purposes of general illustration, the "Link Element" is the transmission

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facility (or channel or group of channels on such facility) which extends from a Main Distribution Frame, DSX-panel, or functionally comparable piece of equipment in an ILEC end office wire center, to a demarcation or connector block in/at a customer's premises. Traditionally, links were provisioned as 2-wire or 4-wire copper pairs running from the end office distribution frame to the customer premise; however, a link may be provided via other media, including radio frequencies, as a channel on a high capacity feeder/distribution facility which may in turn be distributed from a node location to the customer premise via a copper or coax drop facility, etc. Links fall into the following categories:

"2-wire analog voice grade links" will support analog transmission of 300-3000 Hz, repeat loop start or ground start seizure and disconnect in one direction (toward the end office switch), and repeat ringing in the other direction (toward the end user). This link is commonly used for local dial tone service.

"2-wire ISDN digital grade links" will support digital transmission of two 64 Kbps bearer channels and one 16 Kbps data channel. This is a 2B+D basic rate interface integrated Services Digital Network (BRI-ISDN) type of loop which will meet national ISDN standards.

"4-wire DS-1 digital grade links" will support full duplex transmission of isochronous serial data at 1.544 Mbps. This T-1/DS-1 type of loop provides the equivalent of 24 voice grade/DS0 channels.

- W. "Local Exchange Carrier" or "LEC" means any carrier that provides facility-based Exchange Services utilizing a switch it owns or substantially controls in conjunction with unique central office codes assigned directly to that carrier. This includes both incumbent Local Exchange Carriers ("ILEC") and Entrant Local Exchange Carriers ("ELEC").
- X. "Local Telephone Number Portability" or "LTNP" means the technical ability to enable an end user customer to utilize its telephone number in conjunction with any exchange service provided by any Local Exchange Carrier operating within the geographic number plan area with which the customer's telephone number(s) is associated, regardless of whether the customer's Chosen Local Exchange Carrier is the carrier which originally assigned the number to the customer, without penalty to either the customer or its chosen local exchange carrier.

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- Y. "Main Distribution Frame" or "MDF" is the primary point at which outside plant facilities terminate within a wire center, for interconnection to other telecommunications facilities within the wire center.
- Z. "Meet-Point Billing" or "MPB" refers to an arrangement whereby two LECs jointly provide the transport element of a switched access service to one of the LEC's end office switches, with each LEC receiving an appropriate share of the transport element revenues as defined by their effective access tariffs.
- AA. "MECAB" refers to the *Multiple Exchange Carrier Access Billing (MECAB)* document prepared by the Billing Committee of the Ordering and Billing Forum (OBF), which functions under the auspices of the Carrier Liaison Committee (CLC) of the Alliance for Telecommunications Industry Solutions (ATIS). The MECAB document, published by Bellcore as Special Report SR-BDS-000983, contains the recommended guidelines for the billing of an access service provided by two or more LECs, or by one LEC in two or more states within a single LATA.
- BB. "MECOD" refers to the Multiple Exchange Carriers Ordering and Design (MECOD) Guidelines for Access Services Industry Support Interface, a document developed by the Ordering/Provisioning Committee under the auspices of the Ordering and Billing Forum (OBF), which functions under the auspices of the Carrier Liaison Committee (CLC) of the Alliance for Telecommunications Industry Solutions (ATIS). The MECOD document, published by Bellcore as Special Report SR STS-002643, establish methods for processing orders for access service which is to be provided by two or more LECs.
- CC. "Mid-Fiber Meet" is an interconnection architecture method whereby two carriers meet at a fiber splice in a junction box.
- DD. "NANP" means the "North American Numbering Plan", the system of telephone numbering employed in the United States, Canada, and the Caribbean countries which employ NPA 809.
- EE. "Numbering Plan Area" or "NPA" is also sometimes referred to as an area code. This is the three digit indicator which is defined by the "A", "B", and "C" digits of each 10-digit telephone number within the North American Numbering Plan ("NANP"). Each NPA contains 800 possible NXX Codes. There are two general categories of NPA, "Geographic NPAs" and "Non-Geographic NPAs". A "Geographic NPA" is associated with a defined geographic area, and all telephone numbers bearing such NPA are associated with services provided within that geographic area. A "Non-Geographic NPA", also known as a "Service Access Code" or

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"SAC Code" is typically associated with a specialized telecommunications service which may be provided across multiple geographic NPA areas; 800, 900, 700, and 888 are examples of Non-Geographic NPAs.

- FF. "NXX", "NXX Code", "Central Office Code" or "CO Code" is the three digit switch entity indicator which is defined by the "D", "E", and "F" digits of a 10-digit telephone number within the North American Numbering Plan ("NANP"). Each NXX Code contains 10,000 station numbers. Historically, entire NXX code blocks have been assigned to specific individual local exchange end office switches.
- GG. "On-Line Transfer" means the transferring of an incoming call to another telephone number without the call being disconnected.
- HH. "Permanent Number Portability" or "PNP" means the use of a database solution to provide fully transparent LTNP for all customers and all providers without limitation.
- II. "Plain Old Telephone Service Traffic" or "POTS traffic" refers to calls between two or more Exchange Service users, where both Exchange Services bear NPA-NXX designations associated with the same LATA or other authorized area (e.g., Extended Area Service Zones in adjacent LATAs). POTS traffic includes the traffic types that have been traditionally referred to as "local calling", as "extended area service (EAS)", and as "intraLATA toli".
- JJ. "Port Element" or "Port" is a component of an Exchange Service; for purposes of general illustration, the "Port" is a line card and associated peripheral equipment on an ILEC end office switch which serves as the hardware termination for the customer's exchange service on that switch and generates dial tone and provides the customer a pathway into the public switched telecommunications network. Each Port is typically associated with one (or more) telephone number(s) which serves as the customer's network address. Port categories include:
 - "2-wire analog line port" is a line side switch connection employed to provide basic residential and business type Exchange Services.
 - "2-wire ISDN digital line port" is a Basic Rate Interface (BRI) line side switch connection employed to provide ISDN Exchange Services.
 - "2-wire analog DID trunk port" is a direct inward dialing (DID) trunk side switch connection employed to provide incoming trunk type Exchange Services.

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"4-wire DS-1 digital DID trunk port" is a direct inward dialing (DID) trunk side switch connection employed to provide the equivalent of 24 analog incoming trunk type Exchange Services.

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"4-wire ISDN digital DS-1 trunk port" is a Primary Rate Interface (PRI) trunk side switch connection employed to provide the ISDN Exchange Services.

- "Rate Center" means the specific geographic point and corresponding KK. geographic area which have been identified by a given LEC as being associated with a particular NPA-NXX code which has been assigned to the LEC for its provision of Exchange Services. The "rate center point" is the finite geographic point identified by a specific V&H coordinate, which is used to measure distance-sensitive enduser traffic to/from Exchange Services bearing the particular NPA-NXX designation associated with the specific Rate Center. The "rate center area" is the exclusive geographic area which the LEC has identified as the area within which it will provide Exchange Services bearing the particular NPA-NXX designation associated with the specific Rate Center. The Rate Center point must be located within the Rate Center area.
- LL. "Rating Point", sometimes also referred to as "Routing Point" means a location which a LEC has designated on its own network as the homing (routing) point for traffic inbound to Exchange Services provided by the LEC which bear a certain NPA-NXX designation. Pursuant to Bellcore Practice BR 795-100-100, the Rating Point may be an "End Office" location, or a "LEC Consortium Point of Interconnection". Pursuant to that same Belicore Practice, examples of the latter shall be designated by a common language location identifier (CLLI) code with (x)KD in positions 9, 10, 11, where (x) may be any alphanumeric A-Z or 0-9. The Rating Point/Routing Point need not be the same as the Rate Center Point, nor must it be located within the Rate Center Area.
- "Reference of Calls" refers to a process in which calls are routed to an MM. announcement which states the new telephone number of an end user.
- "Service Control Point" or "SCP" is the node in the signeling network to NN. which informational requests for service handling, such as routing, are directed and processed. The SCP is a real time database system that, based on a query from the SSP, performs subscriber or applicationspecific service logic, and then sends instructions back to the SSP on how to continue call processing.

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- OO. "Signal Transfer Point" or "STP" performs a packet switching function that routes signaling messages among SSPs, SCPs and other STPs in order to set up calls and to query databases for advanced services.
- PP. "Synchronous Optical Network" or "SONET" means ...
- OQ. "Switched Access Service" means the offering of facilities for the purpose of the origination or termination of non-POTS traffic to or from Exchange Services offered in a given area. Switched Access Services include: Feature Group A, Feature Group B, Feature Group D, 800 access, and 900 access.
- RR. "Trunk Side" refers to a central office switch connection that is capable of, and has been programmed to treat the circuit as, connecting to another switching entity, for example a private branch exchange ("PBX") or another central office switch. Trunk side connections offer those transmission and signaling features appropriate for the connection of switching entities, and can not be used for the direct connection of ordinary telephone station sets.
- SS. "Wire Center" means a building or space within a building which serves as an aggregation point on a given carrier's network, where transmission facilities and circuits are connected or switched.

III. DEFAULT NETWORK INTERCONNECTION ARCHITECTURE

LECs shall interconnect their networks as necessary to effect the Co-Carrier Arrangements identified in Parts V., VI., VII., and IX. Any two or more LECs shall be free to employ whatever network interconnection architecture and at whatever points as the may mutually agree, provided that each LEC makes available the same arrangements to each other LEC operating within the same areas. Notwithstending any mutual agreements which may be established between carriers regarding the architecture of network interconnection arrangements they may voluntarily establish between their networks, each LEC shall, upon request by any other LEC, minimally make available to that LEC interconnection arrangements conforming to the default network interconnection architecture defined below:

A. In each LATA within which at least one ELEC provides Exchange Service, the ILEC wire center housing the ILEC tandem switch with the greatest traffic volume in the LATA shall be designated as the Default Network Interconnection Point ("D-NIP"). The D-NIP shall be the point at which all LECs providing Exchange Services within the LATA shall have the right to interconnect to all other LECs providing Exchange Services within the LATA.

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- B. Where an ELEC and an ILEC interconnect at a D-NIP, ELEC shall have the right to specify any of the following interconnection methods:
 - a mid-fiber meet at the D-NIP, or in a manhole or other appropriate junction point near to or just outside the D-NIP;
 - a digital cross-connection hand-off, DSX panel to DSX panel, where both the ELEC and the ILEC maintain such facilities at the D-NIP;
 - a co-location facility maintained by ELEC, or by a 3rd-party with whom ELEC has contracted for such purposes, at an ILEC wire center, where such wire center has been designated as the D-NIP;
 - 4. a co-location facility maintained by ILEC, or by a 3rd-party with whom ILEC has contracted for such purposes, at an ELEC wire center, where such wire center has been designated as the D-NIP.
- C. In extending network interconnection facilities to the D-NIP, ELEC shall have the right to extend its own facilities or to lease dark fiber facilities or digital transport facilities from ILEC or from any 3rd-party, subject to the following terms:
 - 1. Such leased facilities shall extend from any point designated by ELEC on its own network (including a co-location facility maintained by ELEC at an ILEC wire center) to the D-NIP or associated manhole or other appropriate junction point.
 - 2. Where ELEC leases such facilities from ILEC, ELEC shall have the right to lease under the most favorable tariff or contract terms ILEC offers.
- D. Where an interconnection occurs via a co-location facility, no incremental cross-connection charges shall apply for the circuits required by this agreement.
- E. Upon reasonable notice, ELEC may change from one of the interconnection methods specified above, to one of the other methods specified above, with no penalty, conversion, or rollover charges.

IV. NUMBER RESOURCE ARRANGEMENTS

A. Nothing in this agreement shall be construed to in any manner limit or otherwise adversely impact any LEC's right to employ or to request and

be assigned any NANP number resources including, but not limited to, central office (NXX) codes pursuant to the Central Office Code Assignment Guidelines².

- B. As contemplated by the Central Office Code Assignment Guidelines, each LEC shall designate within the geographic NPA with which each of its assigned NXX codes is associated, a Rate Center area within which it intends to offer Exchange Services bearing that NPA-NXX designation, and a Rate Center point to serve as the measurement point for distance-sensitive traffic to/from the Exchange Services bearing that NPA-NXX designation.
- C. Each LEC will also designate a Rating Point for each assigned NXX code. A LEC may designate one location within each Rate Center as the Rating Point for the NPA-NXXs associated with that Rate Center; alternatively, the LEC may designate a single location within one Rate Center to serve as the Rating Point for all the NPA-NXXs associated with that Rate Center and with one or more other Rate Centers served by the LEC within the same LATA.
- D. To the extent any ILEC serves as Central Office Code Administrator for a given region, the ILEC will support all other LEC requests related to central office (NXX) code administration and assignments in an effective and timely manner.
- E. All LECs will comply with code administration requirements as prescribed by the Federal Communications Commission, the Public Service Commission, and accepted industry guidelines.
- F. It shall be the responsibility of each LEC to program and update its own switches and network systems to recognize and route traffic to each other LEC's assigned NXX codes at all times. No LEC shall impose any fees or charges whatsoever on any other LEC for such activities.

V. MEET-POINT BILLING ARRANGEMENTS

A. Description

 Each ELEC may at its sole option and discretion establish meetpoint billing arrangements with an ILEC in order to provide Switched Access Services to third parties via an ILEC access tendem switch, in accordance with the Meet-Point Billing

Last published by the Industry Numbering Committee (*INC") as INC 95-0407-008, Revision 4/7/95, formerly ICCF 93-0729-010.

guidelines adopted by, and contained in the Ordering and Billing Forum's MECAB and MECOD documents, except as modified herein.

- 2. Except in instances of capacity limitations, ILEC shall permit and enable ELEC to sub-tend the ILEC access tandem switch(es) nearest to the ELEC Rating Point(s) associated with the NPA-NXX(s) to/from which the Switched Access Services are homed. In Instances of capacity limitation at a given access tandem switch, ELEC shall be allowed to sub-tend the next-nearest ILEC access tandem switch in which sufficient capacity is available.
- 3. Except in those instances where ELEC and ILEC have negotiated mutually-agreeable alternative network interconnection arrangements, interconnection for the meet-point arrangement shall occur at the D-NIP.
- 4. Common channel signalling ("CCS") shall be utilized in conjunction with meet-point billing arrangements to the extent such signaling is resident in the ILEC access tandem switch.
- 5. ELEC and ILEC will use their best reasonable efforts, individually and collectively, to maintain provisions in their respective federal and state access tariffs, and/or provisions within the National Exchange Carrier Association ("NECA") Tariff No. 4, or any successor tariff, sufficient to reflect this meet-point billing arrangement, including meet-point billing percentages.
- 6. As detailed in the MECAB document, ELEC and ILEC will in a timely fashion exchange all information necessary to accurately, reliably and promptly bill third parties for Switched Access Services traffic jointly handled by ELEC and ILEC via the meetpoint arrangement. Information shall be exchanged in Electronic Message Record ("EMR") format, on magnetic tape or via a mutually acceptable electronic file transfer protocol.
- 7. ELEC and ILEC shall employ the calendar month billing period for meet-point billing, and shall provide each other, at no charge, the Usage Data.

Including, as necessary, call detail records, interstate/intrastate/intraLATA percent of use factors, carrier name and billing address, carrier identification codes, serving wire center designation, etc., associated with such switched access traffic.

B. <u>Compensation</u>

- 1. At ELEC's option, billing to 3rd-parties⁴ for the Switched Access Services jointly provided by ELEC and ILEC via the meet-point arrangement shall be according to the single-bill/single tariff method, single-bill/multiple-tariff method, multiple-bill/single-tariff method.
- 2. Switched Access charges to 3rd-parties shall be calculated utilizing the rates specified in ELEC's and ILEC's respective federal and state access tariffs, in conjunction with the appropriate meet-point billing factors specified for each meet-point arrangement either in those tariffs or in the NECA No. 4 tariff.
- 3. ELEC shall be entitled to the balance of the switched access charge revenues associated with the jointly handled switched access traffic, less the amount of transport element charge revenues⁵ to which ILEC is entitled pursuant to the above-referenced tariff provisions.
- 4. Where ELEC specifies one of the single-bill methods, ILEC shall bill and collect from 3rd parties, promptly remitting to ELEC the total collected switched access charge revenues associated with the jointly-handled switched access traffic, less only the amount of transport element charge revenues to which ILEC is otherwise entitled.
- 5. MPB will apply for all traffic bearing the 800, 888, or any other non-geographic NPA which may be likewise designated for such traffic in the future, where the responsible party is an IXC. In those situations where the responsible party for such traffic is a LEC, full switched access rates will apply.

VI. RECIPROCAL TRAFFIC EXCHANGE ARRANGEMENT

A. <u>Description</u>

LECs shall reciprocally terminate POTS calls originating on each others' networks. Except in those instances where two (or more) LECs have

⁴ Including any future ILEC separate interexchange subsidiaries.

For purposes of clarification, this does not include the interconnection charge, which is to be remitted to the end office provider, which in this case would be ELEC.

negotiated mutually-agreeable alternative network interconnection arrangements, reciprocal traffic exchange shall occur as follows:

- 1. LECs shall make available to each other interconnection facilities for the reciprocal exchange of POTS traffic at the D-NIP. The POTS reciprocal traffic exchange facilities established between any two LECs shall be configured as two separate trunk groups, whereby the first LEC shall utilize the first trunk group to terminate traffic to the second LEC, and the second LEC shall utilize the second trunk group to terminate traffic to the first LEC.
- 2. The connections between the interconnection trunk groups shall be made at a DS-1 or multiple DS-1 level (including SONET) and shall be jointly-engineered to an objective P.01 grade of service.
- 3. Initial connections shall be made at an aggregate network level per D-NIP, such that a single trunk group shall be established in each direction between the two LEC networks, unless otherwise agreed to by the two LECs.

In those instances where the total traffic in either direction between the networks of two LECs (other than the ILEC with the greatest traffic in the LATA) is less than 2,000,000 per month for a sustained period of six (6) months, the ILEC which carries the greatest amount of traffic within the LATA shall allow those two LECs to route traffic between their respective networks via the aggregate traffic exchange trunk groups each LEC maintains with the ILEC for the exchange of traffic with the ILEC. In such instances, ILEC shall route traffic between the two LECs as if the originating LEC network was a single switching entity within the ILEC's own network.

- 4. Whenever the total traffic in either direction between discrete switching entities in two separate LEC networks exceeds 2,000,000, per month for a sustained period of three (3) months, disaggregated traffic exchange trunk group paths shall be established between those two switching entities at the option of either LEC. The interconnection architecture shall be the same as that which pertained for the aggregated connections.
- 5. Each party shall deliver to each other party POTS traffic at the D-NIP associated with the LATA in which the POTS traffic occurs.
- 6. LECs will provide Common Channel Signalling (CCS) to one another, where and as available, in conjunction with all traffic

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exchanged at the D-NIP. LECs will cooperate on the exchange of Transactional Capabilities Application Part (TCAP) messages to facilitate full inter-operability of CCS-based features between their respective networks, including all CLASS features and functions. All CCS signalling parameters will be provided including automatic number identification (ANI), originating line information (OLI) calling party category, charge number, etc. All privacy indicators will be honored. Network signalling information such as Carrier Identification Parameter (CCS platform) and CIC/OZZ information (non-CCS environment) will be provided wherever such information is needed for call routing or billing. For traffic for which CCS is not available, in-band multi-frequency (MF), wink start, E&M channel-associated signalling with ANI will be forwarded.

- 7. LECs shall establish company-wide CCS interconnections STP-to-STP. Such interconnections shall be made at the D-NIP, as necessary.
- 8. Where any two LECs exchange traffic at the D-NIP, one LEC may request, and the second LEC shall provide within 60 days of receiving such request, a separated trunk group from the D-NIP to a specific end office or tandem switching entity in the network of the second LEC, in that the first LEC may utilize such separated trunk group in order to both terminate POTS traffic to points subtending that specific switch, and terminate and originate to such points non-POTS which would otherwise be terminated or originated to such switch via Feature Group ("FGD") Switched Access Services which the first LEC would otherwise purchase from the second LEC. All POTS traffic carried over such trunk group shall be subject solely to the compensation arrangements specified below for POTS traffic. All non-POTS traffic carried over such trunk group shall be subject solely to the applicable tariffed FGD Switched Access charges which would otherwise apply to such traffic, as described below.

B. <u>Compensation</u>

- A POTS call handed-off at the D-NIP corresponding to the LATA
 in which the call occurs, shall be exchanged on an in-kind basis,
 with no charges, including CCS charges, applying in either
 direction.
- A POTS call which is routed between two LECs via the aggregate traffic exchange trunk groups which each LEC maintains between its own network and the network of the largest ILEC operating in

the LATA, shall be exchanged on an in-kind basis, with no charges applying in either direction between the two LECs at either end of the call. However, the LEC on whose network the call originated shall pay the ILEC the lesser of: (1) ILEC's interstate Switched Access Service per minute tendem switching rate element; (2) ILEC's intrastate Switched Access Service per minute tendem switching rate element; or (3) a per minute rate of \$0.002. Should non-POTS traffic be exchanged over such arrangements, in either direction, such traffic will be subject to the standard meet-point billing compensation and procedures which would otherwise apply.

- 3. FGD charges for non-POTS traffic carried together with POTS traffic over a separated trunk group shall be calculated as follows:
 - a. FGD charges for non-POTS traffic shall be applied as if the D-NIP is the serving wire center for the FGD service.
 - b. Non-POTS traffic which would otherwise be subject to originating FGD charges will be rated and billed according to procedures which otherwise apply for the rating and billing of originating FGD traffic.
 - c. Non-POTS traffic which would otherwise be subject to terminating FGD charges will be rated and billed according to the procedures which otherwise apply for the rating and billing of terminating FGD traffic, with the following modifications:
 - (1) The initial written request for separated trunk groups to a specific switching entity shall include percentage of use factors for POTS traffic, intrastate non-POTS traffic, and interstate non-POTS traffic (the sum of which should equal 100%) the requesting (first) LEC expects to terminate over the separated trunk group.
 - (2) The initial estimated percentages shall be employed by the second LEC to rate and bill all traffic terminated over the separated trunk group, beginning on the date on which non-POTS traffic is initially terminated over over such trunk group, up to and including the last day of the calendar quarter following the quarter in which such terminations were initiated.

following the calendar quarter immediately following the calendar quarter in which termination of non-POTS traffic was initiated, the first LEC shall by the 45th day of each new calendar quarter provide to the second LEC the actual terminating traffic percentages from the immediately preceding calendar quarter shall be provided for application in the next following calendar quarter. The second LEC shall utilize these percentages in calculating the terminating traffic exchange charges, terminating intrastate FGD charges, and terminating interstate FGD charges due from the first LEC.

VII. SHARED NETWORK PLATFORM ARRANGEMENTS

A. Interconnection Between ELECs Co-Located in an ILEC Wire Center

1. <u>Description</u>

ILEC will enable any two ELECs to directly interconnect their respective networks, where both ELECs maintain co-location facilities at the same ILEC wire center, by effecting a cross-connection between those co-location facilities, as jointly directed by the two ELECs.

2. Compensation

For cross-connections between two ELEC co-location facilities in the same ILEC wire center, ILEC will charge each ELEC one-half the standard tariffed special access cross-connect rate.

B. <u>9-1-1/E9-1-1</u>

1. Description

a. ELEC will interconnect to the ILEC 9-1-1/E-9-1-1 selective routers/911 tandems which serve the areas in which ELEC provides exchange services, for the provision of 9-1-1/E9-1-1 services and for access to all sub-tending Public Safety Answering Points ("PSAP"). ILEC will provide ELEC with the appropriate CLLI codes and specifications of the tandem serving area.

- b. Except in those instances where ELEC and ILEC have negotiated mutually-agreeable alternative network interconnection arrangements, interconnection shall be made at the D-NIP.
- c. ILEC and ELEC will arrange for the automated input and daily updating of 9-1-1/E-9-1-1 database information related to ELEC end users. ILEC will provide ELEC with the Master Street Address Guide (MSAG) so that ELEC can ensure the accuracy of the data transfer. Additionally, ILEC shall provide to ELEC the ten-digit POTS number for each PSAP that sub-tends each ILEC selective router/9-1-1 tandem to which ELEC is interconnected.
- d. ILEC will use its best efforts to facilitate the prompt, robust, reliable and efficient interconnection of ELEC systems to the 9-1-1/E-9-1-1 platforms.

2. Compensation

No charges shall apply for the provision of 911/E911 services between ILECs and ELECs.

C. Information Services Billing and Collection

1. Description

- a. Except in those instances where ELEC and ILEC have negotiated mutually-agreeable alternative network interconnection arrangements, ELEC shall deliver information services traffic originated over ELEC's Exchange Services to information services provided over ILEC's information services platform (e.g., 976) over the reciprocal traffic exchange trunk groups interconnected at the D-NIP designated by the ILEC for receipt of such traffic.
- b. ILEC will at ELEC's option provide a direct real-time electronic feed or a daily or monthly magnetic tape in a mutually-specified format, listing the appropriate billing listing and effective daily rate for each information service by telephone number.
- c. To the extent ELEC determines to provide a competitive information services platform, ILEC will cooperate with ELEC to develop a LATA-wide NXX code(s) which ELEC

may use in conjunction with such platform. Additionally, ILEC shall route calls to such platform and ELEC will provide billing listing/daily rate information on terms reciprocal to those specified above.

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2. Compensation

- a. ELEC will bill and collect from its end users the specific end user calling rates ILEC bills its own end users for such services, unless ELEC obtains tariff approval from the Public Service Commission ("PSC") specifically permitting ELEC to charge its end users a rate different than the rate set forth in ILEC's tariff for such services.
- b. ELEC will remit the full specified charges for such traffic each month to ILEC, less \$0.05 per minute, and less uncollectibles.
- c. In the event ELEC provides an information service platform, ILEC shall bill its end users and remit funds to ELEC on terms reciprocal to those specified above.

D. <u>Directory Listings and Directory Distribution</u>

1. Description

The directory listings and distribution terms and rate specified in this section shall apply to listings of ELEC customer numbers falling within NXX codes directly assigned to ELEC, and to listings of ELEC customer telephone numbers which are retained by ELEC pursuant to Local Telephone Number Portability Arrangements described below.

- a. ILEC will include ELEC's customers' telephone numbers in its "White Pages" and "Yellow Pages" directory listings and directory assistance databases associated with the areas in which ELEC provides services to such customers, and will distribute such directories to such customers, in the identical and transparent manner in which it provides those functions for its own customers' telephone numbers.
- b. ELEC will provide ILEC with its directory listings and daily updates to those listings in in an industry-accepted format; ILEC will provide ELEC a magnetic tape or computer disk containing the proper format.

c. ELEC and ILEC will accord ELEC' directory listing information the same level of confidentiality which ILEC accords its own directory listing information, and ILEC shall ensure that access to ELEC's customer proprietary confidential directory information will be limited solely to those ILEC employees who are directly involved in the preparation of listings.

2. Compensation

- a. ILEC shall remit to ELEC a royalty payment for sales of any bulk directory lists to third parties, where such lists include ELEC customer listings.
- b. Such royalty payments shall be in proportion to the number of ELEC listings to ILEC listings contained in the list purchased by the third party, less 10% which ILEC may retain as sales commission.

E. <u>Directory Assistance (DA)</u>

1. <u>Description</u>

At ELEC' request, ILEC will:

- a. provide to ELEC operators or to an ELEC-designated operator bureau on-line access to ILEC's directory assistance database, where such access is identical to the type of access ILEC's own directory assistance operators utilize in order to provide directory assistance services to ILEC end users;
- provide to ELEC unbranded directory assistance service ELEC which is comparable in every way to the directory assistance service ILEC makes available to its own end users;
- provide to ELEC directory assistance service under ELEC's brand which is comparable in every way to the directory assistance service ILEC makes available to its own end users;
- d. allow ELEC or an ELEC-designated operator bureau to license ILEC's directory assistance database for use in providing competitive directory assistance services; and/or

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FLORIDA CO-CARRIER STIPULATION AND AGREEMENT

e. in conjunction with VII.E.1.b. or VII.E.1.c., above, provide caller-optional directory assistance call completion service which is comparable in every way to the directory assistance call completion service. ILEC makes available to its own end users.

2. Compensation

ILEC will charge ELEC Long Run Incremental Cost (LRIC)--based rates for the following functionality:

- a. \$0.0 per directory assistance database query.
- b. \$0.0 per unbranded directory assistance call.
- c. \$0.0 per branded directory assistance call.
- d. \$___ for licensing of each directory assistance database.
- e. \$0.0_ per use of caller-optional directory assistance call completion. (ILEC will provide calling and billing detail to ELEC in an acceptable format to ELEC for customer billing.

F. Yellow Page Maintenance

ILEC will work cooperatively with ELEC to ensure that Yellow Page advertisements purchased by customers who switch their service to ELEC (including customers utilizing ELEC-assigned telephone numbers and ELEC customers utilizing co-carrier number forwarding) are maintained without interruption. ILEC will allow ELEC customers to purchase new yellow pages advertisements without discrimination, at non-discriminatory rates, terms and conditions. ILEC and ELEC will implement a commission program whereby ELEC may, at ELEC's sole discretion, act as a sales, billing and collection agent for Yellow Pages advertisements purchased by ELEC's exchange service customers.

G. Transfer of Service Announcements

When an end user customer changes from ILEC to ELEC, or from ELEC to ILEC, and does not retain its original telephone number, the party formerly providing service to the end user will provide a transfer of service announcement on the abandoned telephone number. This announcement will provide details on the new number to be dialed to

reach this customer. These arrangements will be provided reciprocally, free of charge to either the other carrier or the end user customer.

H. Coordinated Repair Calls

ELEC and ILEC will employ the following procedures for handling misdirected repair calls:

- 1. ELEC and ILEC will educate their respective customers as to the correct telephone numbers to call in order to access their respective repair bureaus.
- 2. To the extent the correct provider can be determined, misdirected repair calls will be referred to the proper provider of local exchange service in a courteous manner, at no charge, and the end user will be provided the correct contact telephone number. Extraneous communications beyond the direct referral to the correct repair telephone number are strictly prohibited.
- 3. ELEC and ILEC will provide their respective repair contact numbers to one another on a reciprocal basis.

I. Busy Line Verification and Interrupt

1. <u>Description</u>

Each LEC shall establish procedures whereby its operator bureau will coordinate with the operator bureaus of each other LEC operating in the LATA in order to provide Busy Line Verification ("BLV") and Busy Line Verification and Interrupt ("BLVI") services on calls between their respective end users. BLV and BLVI inquiries between operator bureaus shall be routed over the Reciprocal Traffic Exchange Trunk groups.

2. <u>Compensation</u>

Each LEC shall equally and reciprocally compensate each other LEC for BLV and BLVI inquiries according to the following LRIC-based rates:

	per inquiry				
BLV	\$ 0				
BLVI	\$0				

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J. Information Pages

ILEC will include in the "Information Pages" or comparable section of its White Pages Directories for areas served by ELEC, listings provided by ELEC for ELEC's installation, repair and customer service and other information. Such listings shall appear in the manner and likenesses as such information appears for subscribers of the ILEC and other LECs.

K. Operator Reference Database (ORDB)

ILEC will provide the ELEC with monthly updates of the ILEC's Operator Reference Database (ORDB) in electronic format at no charge to enable ELECs to promptly respond to emergency agencies (i.e. fire, police, etc) in an timely fashion when emergencies occur.

VIII. UNBUNDLED EXCHANGE SERVICE ARRANGEMENTS

A. <u>Description</u>

ILEC shall immediately unbundle all its Exchange Services into two separate packages: (1) link element plus cross-connect element; and (2) port element plus cross-connect element. The following link and port categories shall be provided:

Link Categories 2-wire analog voice grade

2 wire ISDN digital grade 4-wire DS-1 digital grade Port Categories

2-wire analog line

2-wire ISDN digital line

2-wire analog DID trunk

4-wire DS-1 digital DID trunk

4-wire ISDN DS-1 digital trunk

ILEC shall unbundle and separately price and offer these elements such that ELEC will be able to lease and interconnect to whichever of these unbundled elements ELEC requires, and to combine the ILEC-provided elements with any facilities and services that ELEC may itself provide, in order to efficiently offer telephone services to end users, pursuant to the following terms:

- 1. Interconnection shall be achieved via co-location arrangements ELEC shall maintain at the wire center at which the unbundled elements are resident.
- 2. At ELEC' discretion, each link or port element shall be delivered to the ELEC co-location arrangement over an individual 2-wire hand-

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FLORIDA CO-CARRIER STIPULATION AND AGREEMENT

off, in multiples of 24 over a digital DS-1 hand-off in any combination or order ELEC may specify, or through other technically feasible and economically comparable hand-off arrangements requested by ELEC (e.g., SONET STS-1 hand-off).

- 3. All transport-based features, functions, service attributes, gradesof-service, install, maintenance and repair intervals which apply to the bundled service should apply to unbundled links.
- 4. All switch-based features, functions, service attributes, grades-of-service, and install, maintenance and repair intervals which apply to the bundled service should apply to unbundled ports.
- ILEC will permit any customer to convert its bundled service to an unbundled service and assign such service to ELEC, with no penalties, rollover, termination or conversion charges to ELEC or the customer.
- 6. ILEC will bill all unbundled facilities purchased by ELEC (either directly or by previous assignment by a customer) on a single consolidated statement per wire center.
- 7. Where ILEC utilizes digital loop carrier ("DLC")⁶ technology to provision the link element of an bundled Exchange Service to an end user customer who subsequently determines to assign the link element to ELEC and receive Exchange Service from ELEC via such link, ILEC shall deliver such link to ELEC on an unintegrated basis, pursuant to ELEC' chosen hand-off architecture, without a degradation of end user service or feature availability.
- 8. ILEC will permit ELEC to co-locate remote switching modules and associated equipment in conjunction with co-location arrangements ELEC maintains at an ILEC wire center, for the purpose of interconnecting to unbundled link elements.
- 9. ILEC shall provide ELEC with an appropriate on-line electronic file transfer arrangement by which ELEC may place, verify and receive confirmation on orders for unbundled elements, and issue and track trouble-ticket and repair requests associated with unbundled elements.

See, Bellcore TR-TSY-000008, Digital Interface Between the SLC-96 Digital Loop Carrier System and Local Digital Switch and TR-TSY-000303, Integrated Digital Loop Carrier (IDLC) Requirements, Objectives, and Interface.

: UE 224 0060

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B. Compensation

Prices for unbundled elements should be based on long run service incremental cost, should depart from cost in equal proportions, and should be imputed into the bundled service rates, such that the following pricing formulae are satisfied:

$$PB/CB = PL/CL = PP/CP = PC/CC$$

and
 $PB = PL + PP + PC$

Where:

Ps = Price of the bundled service (including all applicable discounts).

CB = Long-run service incremental cost ("LRSIC") of the bundled service.

PL Price of the unbundled link element.

CL = LRSIC of the unbundled link element.

Pp = Price of the unbundled port element.

CP = LRSIC of the unbundled port element.

Pc = Price of the unbundled cross-connect element.

Cc = LRSIC of the unbundled cross-connect

ILEC shall provide links and ports to ELEC at the following monthly recurring rates:

	Price, each when delivered over:				
	an individual	a digital			
	2-wire hand-off	DS-1 hand-off			
2-wire analog voice grade link	\$	\$			
2 wire ISDN digital grade link	\$	\$			
4-wire DS-1 digital grade link	\$ <u>n/a</u>	\$7			

To be provided as a Special Access or Private Line DS-1 Channel Termination/Local Distribution Channel, subject to the most favorable tariff or contract terms for which ELEC is eligible, except in those situations where:

The ILEC offers its own end user customers a bundled DS-1 digital grade Exchange Service at a bundled rate which is less than the sum of the unbundled 4-wire DS-1 digital DID trunk port rate and the most favorable Channel Termination/Local Distribution Channel rate for which ELEC is eligible. In such instances, the ILEC shall provide 4-wire DS-1 digital grade links to ELEC at a rate less than or equal to the price of the bundled DS-1 digital grade Exchange Service less the unbundled 4-wire DS-1 digital DID trunk port rate, for ELEC's use in the provision of DS-1 digital grade Exchange Services.

and/or

The ILEC offers its own end user customers a bundled DS-1 digital grade Exchange Service (continued...)

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FLORIDA CO-CARRIER STIPULATION AND AGREEMENT

2-wire analog line port	\$	\$
2-wire ISDN digital line port	\$	\$
2-wire analog DID trunk port	\$	\$
4-wire DS-1 digital DID trunk port	\$ <u>n/a</u>	\$
4-wire ISDN-PRI digital trunk port	\$ n/a	\$

C. Process for Requests for Further Essential Facilities

In the event that an ELEC identifies a new essential facility or function that would facilitate its provision of a competitive basic local exchange service offering, it shall submit a written request to the Commission and the appropriate ILEC for the provision of that essential facility or function. This request shall contain the name of the requesting entity, the date of the request, and the specific type of unbundling requested. The ILEC shall file a tariff providing the new essential facility or function service offering within 60 days, or within 30 days it should file a statement with the Commission indicating why it would not be technologically practicable to provide the component as a separate service offering. Any provider whose request for the provision of an essential facility or function is denied or not acted upon in a timely manner may file a complaint in accordance with current Commission rules.

IX. LOCAL TELEPHONE NUMBER PORTABILITY ARRANGEMENTS

A. <u>Description</u>

ILEC and ELEC will provide Local Telephone Number Portability ("LTNP") on a reciprocal basis between their networks to enable each of their end user customers to utilize telephone numbers associated with an Exchange Service provided by one carrier, in conjunction an Exchange Service provided by the other carrier, upon the coordinated or simultaneous termination of the first Exchange Service and activation of the second Exchange Service.

 ELEC and ILEC will provide reciprocal LTNP immediately upon execution of this agreement via Interim Number Portability ("INP") measures. ILEC and ELEC will migrate from INP to a databasedriven Permanent Number Portability ("PNP") arrangement as soon

^{(...}continued) with performance specifications (including, but not limited to, installation intervals, service intervals, service priority, bit-error rates, interruption/availability rates, quality or conditioning) superior to that provided for Special Access or Private Line Channel Terminations/Local Distribution Channels. In such instances, the ILEC shall provide the same or better performance characteristics to ELEC for all DS-1 digital grade links ELEC purchases for use in the provision of DS-1 digital grade Exchange Services.

as practically possible, without interruption of service to their respective customers.

- 2. INP shall operate as follows:
 - a. A customer of Carrier A elects to become a customer of Carrier B. The customer elects to utilize the original telephone number(s) corresponding to the Exchange Service(s) it previously received from Carrier A, in conjunction with the Exchange Service(s) it will now receive from Carrier B. Upon receipt of a signed letter of agency from the customer assigning the number to Carrier B, Carrier A will implement one of the following arrangements:
 - (1) For the portability of telephone numbers which are not part of a DID number block, Carrier A will implement an arrangement whereby all calls to the original telephone number(s) will be forwarded to a new telephone number(s) designated by Carrier B. Carrier A will route the forwarded traffic to Carrier B via the mutual traffic exchange arrangements, as if the call had originated from the original telephone number and terminated to the new telephone number.
 - (2) For the portability of telephone numbers which are part of a DID number block, Carrier A will provide Carrier B an aggregated, digital DS-1 or higher grade DID trunk group at each D-NIP (interface to be achieved in the same manner as the traffic exchange trunk groups at each D-NIP), such that all inbound traffic to ported DID numbers will be delivered to Carrier B over this digital DID trunk facility. In order for a customer to port its DID numbers from Carrier A to Carrier B, the customer will be required to assign entire 20-number DID blocks to Carrier B.
 - b. Carrier B will become the customer of record for the original Carrier A telephone numbers subject to the INP arrangements. Carrier A will provide Carrier B a single consolidated master billing statement for all collect, calling card, and 3rd-number billed calls associated with those numbers, with sub-account detail by retained number. At Carrier B's sole discretion, such billing statement shall be

delivered in real time via an agreed-upon electronic data transfer, or via daily or monthly magnetic tape.

Carrier A will update its Line Information Database ("LIDB") C. listings for retained numbers, and restrict or cancel calling cards associated with those forwarded numbers, as directed by Carrier B.

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- Within two (2) business days of receiving notification from d. the customer, Carrier B shall notify Carrier A of the customer's termination of service with Carrier B, and shall further notify Carrier A as to the Customer's instructions regarding its telephone number(s). Carrier A will cancel the INP arrangements for the customer's telephone number(s). If the Customer has chosen to retain its telephone number(s) for use in conjunction with Exchange Services provided by Carrier A or by another LEC which participates in INP arrangements with Carrier A, Carrier A will simultaneously transition the number(s) to the customer's preferred carrier.
- 3. Under either an INP or PNP arrangement, ELEC and ILEC will implement a process to coordinate LTNP cut-overs with Unbundled Link conversions (as described in Paragraph VIII., above). ELEC and ILEC pledge to use their best efforts to ensure that LTNP arrangements will not be utilized in instances where a customer changes locations and would otherwise be unable to retain its number without subscribing to foreign exchange service.

В. Compensation

- 1. ELEC and ILEC shall provide LTNP (either INP or PNP) arrangements to one another at no charge, except for authorized collect, calling card and 3rd-number billed calls billed to the retained numbers. However, for all traffic forwarded between ELEC and ILEC in the manner described above, reciprocal compensation charges (pursuant to paragraph VI., above) and Switched Access charges (pursuant to each carrier's respective access tariffs), for POTS traffic and non-POTS traffic, respectively, shall be passed through as if the caller had directly dialed the new telephone number.
- 2. In INP arrangements, in order to effect this pass-through of reciprocal compensation and Switched Access charges to which each carrier would otherwise have been entitled if the ported

traffic had been directly dialed to the new number, each carrier will be required to classify and include ported traffic in its quarterly percentage of use reports as POTS, intrastate non-POTS, or interstate non-POTS.

X. RESPONSIBILITIES OF THE PARTIES

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- A. ILEC and ELEC agree to treat each other fairly, non-discriminatorily, and equally for all items included in this agreement, or related to the support of items included in this agreement.
- B. ELEC and ILEC will work cooperatively to minimize fraud associated with 3rd-number billed calls, calling card calls, or any other services related to this agreement.
- C. ELEC and ILEC agree to promptly exchange all necessary records for the proper billing of all traffic.
- D. For network expansion, ELEC and ILEC will review engineering requirements on a quarterly basis and establish forecasts for trunk utilization. New trunk groups will be implemented as dictated by engineering requirements for both ILEC and ELEC. ILEC and ELEC are required to provide each other the proper call information (e.g., originated call party number and destination call party number, CIC, OZZ, etc.) to enable each company to bill in a complete and timely fashion.
- E. There will be no re-arrangement, reconfiguration, disconnect, or other non-recurring fees associated with the initial reconfiguration of each carrier's traffic exchange arrangements upon execution of this agreement, other than the cost of establishing a new co-location arrangement where one does not already exist.
- F. ILEC shall assess no cross-connect fee on ELEC where ELEC establishes a meet-point billing connection, a D-NIP interconnection, or accesses a 911 or E911 port through a co-location arrangement at a ILEC wire center.

XI. TERM

ELEC and ILEC agree to provide service to each other on the terms defined in this agreement until superseded by another agreement or until standard arrangements are approved by the Public Service Commission, whichever occurs first. By mutual agreement, ELEC and ILEC may amend this agreement to extend the term of this agreement. Also by mutual agreement, ILEC and ELEC may jointly petition the appropriate regulatory bodies for permission to have

this agreement supersede any future standardized agreements or rules such regulators might adopt or approve.

XII. INSTALLATION

ILEC and ELEC shall effectuate all the terms of this agreement by within 90 days upon execution of this agreement.

XIII. NETWORK MAINTENANCE AND MANAGEMENT

ELEC and ILEC will work cooperatively to install and maintain a reliable network. ELEC and ILEC will exchange appropriate information (e.g., maintenance contact numbers, network information, information required to comply with law enforcement and other security agencies of the Government, etc.) to achieve this desired reliability.

ELEC and ILEC will work cooperatively to apply sound network management principles by invoking network management controls to alleviate or to prevent congestion.

XIV. OPTION TO ELECT OTHER TERMS

If, at any time while this agreement is in effect, either of the parties to this agreement provides arrangements similar to those described herein to a third party operating within the same LATAs (including associated Extended Area Service Zones in adjacent LATAs) as for which this agreement applies, on terms different from those available under this agreement (provided that the third party is authorized to provide local exchange services), then the other party to this agreement may opt to adopt the rates, terms, and conditions offered to the third party for its own reciprocal arrangements with the first party. This option may be exercised by delivering written notice to the first party. The party exercising its option under this paragraph must continue to provide services to the first party as required by this agreement, subject either to the rates, terms, and conditions applicable to the third party or to the rates, terms, and conditions of this agreement, whichever is more favorable to the first party.

XV. CANCELLATION, CONVERSION, NON-RECURRING OR ROLL-OVER CHARGES

Neither ELEC nor ILEC shall impose cancellation charges upon each other.

XVI. FORCE MAJEURE

[to be inserted]

FLORIDA CO-CARRIER STIPULATION

AND AGREEMENT

XVII.	LIMITATION	OF LIABILITY
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[to be inserted]

Ea	ch of the	signatories l	wolsc	agree to	abide b	y the	terms o	of this	stipulation	and
agreeme	nt.									

Bell South Telecommunications Date

Metropolitan Fiber Systems of Florida, Inc.

CERTIFICATE OF SERVICE

I hereby certify that on this 11th day of November, 1995, a copy of the foregoing documents, Docket No. 950984-TP, was federal expressed to the following parties:

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EXHIBIT NO.

DOCKET NO.: 950984-TP

WITNESS: TIM DEVINE

PARTY: MFS-FL

DESCRIPTION:

12/15/95 DEPOSITION TRANSCRIPT; PP.1-44

Staff's 1st Set of Interrogatories to MFS-FL Nos. 1-7, 9-13; pp.45-68

STAFF'S 1ST REQUEST TO MFS-FL FOR PODS Nos. 1-3; pp.69-81, 115-219

BellSouth's 1st Set of Interrogatories to MFS-FL Nos. 1-6, 9-11; pp.680-694

PROFFERING PARTY: STAFF

I.D. #__TTD-1

FLORIDA PUBLIC SERVICE COMMISSION	
DOCKET	_
NO. 750984-IP EXHIBIT NO.	3
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WITNESS: MES Devine	
DATE: 1/1/96	
DATE:	

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION 2 In the Matter of 3 950984-TP DOCKET NO. Resolution of Petition(s) to establish nondiscriminatory rates, terms and conditions for resale involving local exchange companies and alternative local exchange companies pursuant to Section 364.161, Florida Statutes. : 8 9 TINOTHY T. DEVINE DEPOSITION OF: 10 11 TAKEN AT THE The Staff of the Florida INSTANCE OF: 12 Public Service Commission 13 Gerald L. Gunter Building PLACE: Room 362 2540 Shumard Oak Boulevard 15 Tallahassee, Florida 32399-0850 16 Commenced at 1:20 a.m. 17 TIME: Concluded at 2:10 p.m. 18 Friday, December 15, 1995 DATE: 19 JOY KELLY, CSR, RPR 20 REPORTED BY: Chief, Bureau of Reporting, Official Commission Reporter 21 22

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APPEARANCES:

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3

1

JAMES C. FALVEY, Swindler & Berlin, 3000 K. Street, NW, #300, Washington, D. C. 20007, Telephone No. (202) 424-7771, appearing on behalf of Metropolitan Fiber Systems.

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5

MANCY B. WHITE, 4300 Southern Bell Center,

8 9

675 Peachtree Street, Northeast, Atlanta, Georgia 30375-0001, Telephone No. (404(614-4045, appearing on

10

behalf Southern Bell Telephone and Telegraph Company.

DONNA CANZANO, Florida Public Service

11

Commission, Division of Legal Services, 2540 Shumard 12#

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Oak Boulevard, Tallahassee, Florida 32399-0870,

14

Telephone No. (904) 413-6199, appearing on behalf of

the Commission Staff. 15

16

17

ALSO PRESENT:

19

18

LANS CHASE, FPSC Division of Communications.

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21

22

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24

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INDEX MISCELLANEOUS ITEM PAGE NO. STIPULATION ERRATA SHEET AFFIDAVIT OF DEPONENT CERTIFICATE OF OATH CERTIFICATE OF REPORTER WITNESSES MAME PAGE NO. TIMOTHY T. DEVINE Examination By Ms. Canzano Examination By Ms. White Examination By Mr. Falvy

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STIPULATION

IT IS STIPULATED that this deposition
was taken pursuant to notice in accordance with the
applicable Florida Rules of Civil Procedure; that
objections, except as to the form of the question,
are reserved until hearing in this cause; and that
reading and signing was not waived.

IT IS ALSO STIPULATED that any off-the-record conversations are with the consent of the deponent.

1 TIMOTHY T. DEVINE appeared as a witness and, after being duly sworn by 2 3 the court reporter, testified as follows: EXAMINATION 4 BY MS. CANZANO: 5 6 Good afternoon. Please state your name and 7 business address for the record. 8 Timothy T. Devine, MFS Communications 9 Company, Inc., 6 Concourse Parkway, Suite 2100, Atlanta, Georgia 30328-5351. 11 I have just a few questions to ask you in Docket 950984, which is the resale and unbundling 12 docket. Did you file testimony in that docket? A Yes, I did. 14 Are there any exhibits attached to that 15 16 testimony? 17 A Yes. 18 Q Okay. MS. CANZANO: Do you agree to the usual 19 20 stipulations? 21 MR. FALVEY: Yes. (By Mr. Canzano) Please explain and define 22 Q 23 your concept of unbundling. 24 A Are you referring to any testimony or just 25 generally?

Q Just generally.

A Generally, MFS defines unbundling to include in addition to just, you know, like loop concentration multiplexing, also a lot of the other things that are in the interconnection docket. But for purposes of this docket really what we would be talking about would be the loop facility from the customer premise demarcation point back to the serving wire center, and from the serving wire center back to wherever our network interface would be to the incumbent LEC, and any associated multiplexing or transmission between us and the customer through the LEC.

So it would include -- since the LECs currently have things like multiplexers and like subscriber line concentrators in the network. It would include things like that, too.

Q One of the unbundled elements you are requesting is digital loop carrier systems and you call it the DLC?

A Yes.

Q Explain exactly what MFS is requesting as far as access to this equipment?

A Well, when we're looking at unbundling things that we're requesting, one is just a simple, you know, voice grade cross-connect, and that would be

like a two-wire voice grade, a four-wire voice grade, a digital grade facility for ISDN capability, which I think requires just additional coiling in the circuit, and then a DS1 digital grade.

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In terms of concentration -- so those are like the interfaces to the loops and different kinds of actual transmission loops.

Secondly, we'd like to get concentration from BellSouth, and actually they've, you know, provided me a proposal, in Georgia, for a loop concentration, and that would be MFS cross-connecting a DS1 to BellSouth's digital loop carrier. And then BellSouth has digital loop carriers in their network, they concentrate unbundled loops. So what you have is a DS1 goes into a digital loop carrier, and that in the output of the digital loop carrier at the central office or in a building you have -- but really we're just interested in digital loop carrier, really, at the central office -- you have multiple outputs. And generally you can do like a four-to-one concentration. So you have 96 loops that would go in from unbundled loops out to customer premises and they'd go into that digital loop carrier, and then a DS1 would go over to MFS.

So it's typical of standard equipment that

BellSouth has in its network and we use them primarily in our network, too. Kind of a form of multiplexing really.

Q Are you requesting that ALEC technicians have access to this equipment?

A What we propose is a couple of different things. One is through virtual collocation. We want to be able to do virtual collocation and let's say buy our equipment and then work out a virtual collocation new arrangement with Bell where it will be in the Bell CO and designated to us.

there's real two things. One is through virtual collocation, we'll want a digital loop carrier that would be dedicated to us that we'd do regular virtual collocation like we do now with the multiplexers, the optical multiplexers. We'd say that digital loop carrier is dedicated to MFS, and MFS is going to pay for the maintenance, leasing, whatever on that loop carrier, and we'll have remote telemetry into that digital loop carrier so then we can do remote testing and loopbacks and all those kind of things.

So that's the case where we're using our own digital loop carrier with BellSouth through collocation, under the same terms and conditions as

collocation, which is we can do remote testing and stuff.

- Q I want to just clear up a point on the collocation.
- A But that's just one of them. There's a second part to the answer, too.
 - Q Okay. Go ahead.

- A The other one is that Bell is going to lease us concentration on a digital loop carrier, so that digital loop carrier, on a T-1 basis buying concentration and then we connect to the loops, that's something they proposed to me in Georgia, so I think it would be workable in Florida, too.
- Q When you're talking about collocation and virtual collocation, I just want to clear up, are you aware of the Florida Commission's expanding interconnection order?
 - A I haven't seen it, no.
- Q Are you aware that basically the Commission says it's okay to have virtual collocation but you could only have physical collocation if the LEC offers it. So when you're talking about virtual collocation, you're saying that you own the equipment in the CO or are you saying that the LEC owns the equipment?
 - A It would be under -- I think the LEC retains

title on the virtual collocation. I used to -- I started doing collocation back in '89 when it first started, and I haven't been as closely involved in the last three years.

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But it would be the same way that it's done now for an potical multiplexer. I think maybe we'd buy it and we'd give them title to it and then we would pay them for maintenance and stuff. I think every state is a little different.

Q I just want to make sure that we're clear on that?

A It would be the same way that it's done now for the virtual collocation optical multiplexer. We propose the same things for the digital loop carriers, so it would have to be equipment they are familiar with and can do maintenance on it or we pay to get them trained on it or whatever. So the one way -- in that case, we'd get access to the equipment to do testing.

And a digital loop carrier really is a former multiplexer doing like time division multiplexing and frequency division multiplexing at the same time, I think, and that's how you can do the concentration and grab the signal.

And then the other way that just Bell, just

1	like they lease multiplexing, I know in their
2	testimony they talk about leasing standard
3	multiplexing. In addition to leasing standard
4	multiplexing we'd want them to lease concentration
5	with the digital loop carriers that are in their COs.
6	So we pay, let's just say for illustration, \$100 a
7	month for the digital loop carrier for the DS1
8	capability and then we pay on a per-channel basis for
9	that concentration, and then we connect that to the
10	unbundled loops. So those would be the two ways.
11	Other than just voice grade connections to them are
12	DS1 connections.
13	Q You state in your testimony that prices for
14	unbundled elements should be based on long run
15	incremental cost; is that correct?
16	A Yes.
17	Q How do you propose each unbundled element
18	that you are requesting be rated?
19	A Be rated? You mean
20	Q Like flat LEC rated or measured or a
21	combination?
22	A Well, I think there's a lot of history that

shows that the loops and things like this are all

nontraffic sensitive, so, you know, it would be --

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Are you trying to say that it should be flat

rated --Yeah. If a loop is \$9 or whatever it is, 2 3 it's \$9. So in each element of that you think should Q 5 be --On a flat rated basis. I think that makes 6 A I mean, they are nontraffic sensitive costs; 7 they are not traffic sensitive, I know. The FCC's -there's tons of history on that. I don't know if 9 there's any precedent in the state of Florida for it. 10 Have other commissions officially recognized 11 12 MFS as a co-carrier? 13 A Yes. In terms of certification? 14 Yes. 0 We have been certified in I think it's 15 up to maybe 15 states or thereabouts. 17 Q Could you name the states? 18 A I could try. Subject to check. 19 0 20 My counsel could probably assist me, if λ that's okay, but I'll try to take a stab at it. New 22 York, Massachusetts, Connecticut, Pennsylvania, Maryland, Georgia, Florida, Texas, Illinois, 23 Washington, Ohio, -- there's a couple more. 24 25 You don't have to name them all.

okay. We just wanted to get an idea.

Could you explain the significance of co-carriers status?

- A The significance?
- Q Uh-huh.

- A Like how -- I guess what do you mean by --
- Q Versus is it the same as being an ALEC, is it the same -- do you have the same obligations and responsibilities as an incumbent LEC does?

A I think, you know, the whole concept as we define as co-carrier is to, you know, reciprocal interconnection and things like that. In terms of things like unbundled loops and things like that, we look at in terms of essential facilities. I mean whether it's interconnection or unbundling, the LEC controls essential facilities.

Q So you're saying there is a difference between a LEC and a co-carrier?

A I mean in terms of general interconnection and, you know, terms and conditions and things like that, the concept, you know, that we, you know, pushed is in terms of, you know, co-carrier of terms and conditions and things like that, and reciprocity for most things.

In terms of unbundling, you know, we

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wouldn't feel, since we don't have bottleneck facilities or bottleneck essential facilities, we're obligated to do everything the LEC is doing, because we don't have essential facilities. So I mean, I quess, that's kind of our thought with that when it comes to unbundling. I'm going to go back to the expanded Q

- interconnection. This is just a question I had. When you were discussing expanded interconnection on Page 15 of your direct testimony, on Line 13 you refer to substantive Rule 23.92. I just wanted to know to what you are referring.
 - A Okay. Page 15.

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- Page 15, Line 13. Q
- A I don't actually remember. I guess it would be.
- Would it be from a different state at the Q 18 federal level?
 - That's what it could be. Yeah.
 - MR. FALVEY: If I could offer a solution, maybe we can clarify that when we put the testimony into evidence at the hearing.
 - MS. CANZANO: Okay. That sounds good.
- MR. FALVEY: With a typographical 24 correction. 25

Commission has issued an expanded interconnection order?

A No, not specifically, other than you're telling me that you said that -- earlier, I think, you mentioned it.

Q I just was trying to read this in the context of the paragraph, because it said "We expanded interconnection arrangements offered pursuant to substantive Rule 23.92." So I didn't know if you were offering it pursuant to our order --

A Yeah. I think this is really in the context of, you know, there's collocation right now and that this would be something that we'd want that's not inconsistent with collocation.

I know there was some confusion about remote switching modules, blah, blah, blah. I think BellSouth, in their testimony, there was some confusion that came out of ours, but digital loop carriers are concentration multiplexing-type devices and they are not switching devices. So as far as I know, what we want to do is not inconsistent with virtual collocation. In fact, we're doing this right now in terms of putting digital loop carriers of our own in collocation. We're doing it in Connecticut. We can do it in Massachusetts, New York; with

Rodchester Telephone in Rodchester, in California with Pacific Bell. Ameritech is trialing it with us; they told us they will do it. Bell Atlantic is working with us, trialing it. We're doing it with them.

So what we're wanting to do, put our digital loop carriers, or at least digital loop carriers dedicated to us through virtual collocation is not inconsistent with any current federal interconnection policies. And I imagine if the state policies in Florida are consistent with the federal ones, they wouldn't be inconsistent with the Florida ones. And as a standard practice in the industry, a lot of RBOCs have said they are willing to do it and they are doing it with us.

Q On Page 19 of your direct testimony, on Lines 15 through 18, you state that BellSouth should permit any customer to convert its bundled service to an unbundled service and assign such service to MFS with no penalties, rollover, termination or conversion charges to MFS or the customer.

To your knowledge would the LEC incur costs associated with rollover, termination or conversion in that situation?

A Well, what this really gets at, they may incur costs. If some -- let's say if somebody has an

existing dial tone with BellSouth and they decided they want to switch to MFS, and let's say we have collocation at that wire center, we don't want to be charged like the full install charge, an install circuit as though it's like a new circuit. So if they have a fee for like a service order charge and maybe a connection charge at the central office, we'd be willing to pay those kind of charges. But we don't want to have to pay, you know, a whole new installation charge or some additional rollover charge.

I don't know if it happened in Florida but when I was involved in collocation, I know at the federal level a lot of RBOCs were charged like big additional fees of let's say an IXC wanted to roll circuits to a new entrant, kind of as a deterrent, if they have a cost to do a service order charge and rewiring, you know, we're going to pay that.

One of the other things this gets to is we feel there should be a fresh look on local service, and if somebody has a contract with BellSouth for local service, just as with long distance people got to switch carriers when it first came out, equal access, and with intraLATA presubscription when that hits in Florida, they are also going to have an

opportunity, that we feel customers should also have a opportunity for local service, too.

Because what we found in a lot of states is a LEC, before competition comes in, they go and sign a bunch of long-term contracts to lock customers in before the new entrants get a chance to get in business, which makes it harder. They never get a choice because the competition is not there yet but --

Q So in other words, the LEC could be compensated by MFS for some parts of the cost, for certain parts?

rates, there should be a charge if someone is getting a new circuit. So if I'm buying an unbundled voice grade channel, they should break them down like they probably do now in their tariffs, if they have to send a technician out to the customer prem, there might be a customer prem visit — this is how most LECs do it. So if there is a customer prem visit, there might be a circuit installation charge if it's a new circuit and there might be a CO connection charge or service order charge. So we'd be willing to pay the charges associated with the costs they incur for those elements that would apply. How it works in, like, New York is we prewire all of our connections from their

main distribution frame in the wire center over to our collocation point of termination, our POT bay, and those are all prewired. And then we just pay, if it's an existing customer, service overcharge for the, you know, connectivity to actually process electronically to the central office connection. So I believe BellSouth has proposed -- well they are proposing their full special access rates which don't relate to what we're really interested in buying. There would be some -- if there are some costs, we're going to pay the costs incurred for it.

Q So you are clarifying your response in your

- Q So you are clarifying your response in your testimony a little bit?
 - A Yes, I would think that's true.
- Q Okay. Are you familiar with BellSouth's witnesses testimony, Mr. Scheye?
- A Yes. Not verbatim but I did go through it if you have specific questions.
- Q Do you have a copy of his testimony with you, his direct testimony?
 - A I believe so. Yes.

Q Please refer to Page 5, Lines 14 through 21.

Mr. Scheye proposes that ALECs buy channel

multiplexing and transport from BellSouth's special

access tariff. Explain why this is or is not

acceptable.

Multiplexing, you know, could, you know, or should be one of the options. But there are, in terms of the technical, in terms of their cost structure, I don't agree at all, but in terms of -- Bell uses digital loop carriers in their network and we asked them some interrogatories, and I would think if their network is anything like any other LEC in the U.S. they have digital loop carriers permanently in their network. That that should be one of the options. It's not like it's anything unique or weird or hard to do. In fact, as I mentioned earlier, they gave me a proposal in Georgia for digital loop carrier concentration.

So in terms of channel multiplexing, that should be one of the options, at least technically, if some carriers might be interested in buying that and they do offer channel multiplexing and that should continue to be an option. Associated transport, I guess I have to understand better. Well, they are just deferring to their tariffs in all of this.

- Q Do you have a problem with having to purchase it out of their tariff?
- A Well, I think we don't -- in terms of what, the channel multiplexing?

Q Yes. Well, either?

associated transport, we don't have a real strong position with that at this time probably, the associated transport. So I guess that would be like let's say I don't have collocation at the wire center and I were buying an interoffice DS1 through them, I guess we don't have a real position at this point on that. But in terms of the channel multiplexing, you know, their channel multiplexing prices are based on special access and private line, so they're assuming somebody is buying the special access and private line associated with that. So I mean it's really suited for different customers, different application, different scenario.

If we're trying to go in and offer, you know, flat-rate service, as I mentioned MFS doesn't generally focus on residential customers but let's say if somebody like MCI Metro wants to focus on a residence customer base, because they already have a lot of residence customers, if they are competing against local flat rated service, and they are paying, you know, channel multiplexing charges or associated transport, which, you know, takes a lot of contribution, then it's going to be hard when you get

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down to the per channel rates; what they are actually charging. If you take a multiplexer and assume X utilization; take the transport and assume X utilization; throw maybe a cross-connect fee on there; throw the unbundled loop fee on there, if you add all of those up, chances are the monthly cost to, let's say, an MCI Metro or MFS is probably about the same or more than what BellSouth charges for flat rate local service for residences. So that's where you get into the squeeze scenario.

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Q When you say the "squeeze scenario" could you be more specific about that?

A Yeah, when you're going to -- let's say if, you know, MFS is coming into the market, you have to add up all of your components that you need to get into business. Certainly because a lot of new entrants don't have extensive networks at this point and they have their infrastructures in place. I know we have been in business in Florida for several years and we keep growing our networks but it takes a long time to come close to how big the LEC network is. You don't have connectivity to every building in the Metro area, so we're going to rely heavily on Bell loop facilities. And you have to take into consideration the total cost of what you have to be able to provide

a competitive service, competitive alternative, to a customer.

so one of the things you have to look at is, you know, the loop, because you have to get a loop to the customer. You're going to have to cross-connect your network to the Bell network to get to that loop. You know, you may or may not have to buy, you know, multiplexing concentration interoffice mileage transport to get to, you know, the CO where there's the loop and the concentration. You add up all those costs. You're also going to have costs, you know, for 911 and Directory Assistance and all those other kind of things, and you add up all of those and the cost -- let's say if there's a per-minute rate to terminate and originate calls -- you have to just make sure when you add up all those costs we're not paying them more than what they charge their end user.

So one of the things that's been brought up in a lot of states is maybe like different forms of imputation should be imposed upon the LEC -- if it's a per-minute rate for local, you know, for reciprocal compensation, you take the originating cost, the terminating cost, plus costs for billing and collection, those all have to be added into the LEC rate. And if you're talking about loops, you know,

you might want to look at things as we propose in our testimony, I believe, it's like the loop cross-connect and the port, and see how that goes against the LEC end user rates.

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I quess the whole consent we're always pushing, whether it is interconnection or bundling is we're wholesale providers and we want to keep a low case structure down to enable new entrants to have lower prices for their services.

Please refer to Mr. Scheye's direct Q testimony on Page 15, Lines 3 through 24. Basically Mr. Scheye states that "Loop concentration is a new service and not an unbundled service, and, therefore, BellSouth should not be required to offer it to the ALECs." Do you agree or disagree?

Α I guess I have two points to make on that. One, I disagree because, you know, digital loop carriers are an inherent part of their current network structure, loop structure. And secondly, as I mentioned here earlier, BellSouth actually provided me a proposal for loop concentration in Georgia. So that it's rather ironic that it's -- you know, they don't want to state that they'll offer in testimony, but in business discussions they've actually provided me rates for concentration.

Q Also refer to Mr. Scheye's direct testimony on Page 4, Lines 12 through 23, Page 4.

A In direct.

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Q In direct testimony. Mr. Scheye proposes that ALECs use BellSouth's special access local channels for the unbundled voice grade local loops. Could you explain why this is or is not acceptable to MFS?

reasons. But I'll tell you from actual experience, in New York, effective July 1st, 1994, NYNEX was to have available and they had effective in their tariff unbundled loops. They had tariffed — they were ordered by the Commission to have unbundled loops tariffed July 1st, 1994. And when I started to work in our regulatory group in the New York area, we were trying to buy unbundled loops since it was in the tariff. And NYNEX, it took them about ten months to start to provision unbundled loops after I had to work closely with NYNEX and the Commission, and the Commission basically sent them a letter telling them they were slowing competition, because it was in their tariff and they are under order.

So in the interim in advance of unbundaled loops, NYNEX suggested, "Well, why don't we use

private line and special access facilities. I'll give
you the unbundled loop rate and we'll use private line
and special access facilities in the interim. " And it
was a total mess. It was such a mess that we really
stopped proactively selling local service in New York
because you have to do when you go to an existing
customer, if they have existing dial tone with, let's
say, BellSouth, if they are going to want to go to MFS
or MCI or somebody, all you have to do is roll the
customer over at the central office, which is a lot
easier than going out with a private line you have
to go and disconnect the circuit, you have to install
a new circuit, you have to have a technician out at
the customer prem, you have to coordinate that
rollover with somebody at the central office. If it's
a customer most customers have vendors, even small
customers, so a customer will have to hire a vendor to
come out to coordinate the connections and the wiring.
It just becomes a mess. Because when it is an
existing unbundled loop, it takes less time.
Generally you don't have to send a technician out to
the customer premise, we find, doing it in New York.
We have more unbundled loops than any other carrier in
the U. S. right now. With NYNEX in New York we
probably have well over a thousand operating. It's

just night and day. You have a lot more manpower; it 1 takes longer to roll a customer. The interval for 2 special access circuits, I don't know what they are in 3 BellSouth territory, but most LECs, you know, it takes two or three weeks to get a private line or a special 5 access circuit generally. You know when you order business dial tone or residence dial tone it's a 7 matter of a few days, maybe five days at the most. 8 the interval is longer, more customer hassel, more 9 coordination -- in our company, more coordination than 10 11 the LEC's company, you're bringing in a lot of costs and things that you don't really need. So 12 operationally, it's something that is totally 13 unacceptable. And then from a economic standpoint, if 14 you look at prices for special access and private line, those prices are priced considerably higher than their cost, and they are priced under a different 17 construct of, you know, that their intended use is 18 for. I don't think you're going to have a lot more 19 penetration of competition if those were the rates 20 that would be in place, so --21

Q Are you familiar with an agreement between BellSouth and FCTA and other parties in this docket and a number of other dockets at the Commission?

A Yes.

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A It's very unacceptable to us.

- Q Do you have a copy of that agreement?
- A Yes. I have it now, thank you.
- Q Generally what do you find unacceptable with regards to unbundling, and, also, when you get to the section specifically, which provisions are unacceptable?

A It doesn't address any operational or technical issues at all. It just really refers to the special access, I mean, tariffs. I just -- I was kind of surprised how somebody could agree to something without very much information about it in there.

I know generally the cable industry has not been real interested in purchasing unbundled loops from LECs. So for one, I was suprised they would even stipulate to something like that. I don't see what their interest is. Why they would want to stipulate unbundled loops if they are not interested in them, and especially want to close out a docket on it. It doesn't address -- as I said, we want to be able to cross-connect two-wire circuits, four-wire circuits, ISDN digital grade circuits, which are basically the same technical thing except some coilings added to the circuits gives it a capability so we can run ISDN on

it, you know, DS1 like PBX trunks. We want to be able to also, through virtual collocation, use digital loop carrier equipment at the wire center. And then thirdly, we want to buy loop concentration from BellSouth to have them doing the multiplexing concentration. So I don't know. It doesn't address any of those things. And then they agreed to the special access rates.

When I first saw, you know, rough blush, I'm like, okay, well, cable TV companies aren't interested in loops, and this is a way for them to try to think they can stop a docket from happening and agree to rates that would make it more difficult for people to compete against them. So I didn't think it was appropriate, but everybody has their interest and you have to respect them, I guess.

Q Specifically, and you may have already addressed this, what's your concern with the special access rates applied to unbundling?

A I think if you look simplistically, if you just look at the special access rates, I believe it's around \$25 do \$30 per month. It would be very difficult to get a residence or small business customer -- I mean, I talked to them about that price squeeze earlier. I mean, if you take the \$30 and if,

let's say -- I don't have the numbers with me, but I think like single line business can be around -- start at around \$30 in some places in Florida for flat-rate service, and residence, I think, is, you know, maybe two or three times less than that. I don't have the actual numbers, but I know they're at least around \$30 or significantly less, depending upon the service, and right there that would put a big squeeze. So you're not going to have a lot of residential competition other than the cable TV companies. And from what I know, currently technically you still can't do telephony and cable TV on a coaxial cable, the equipment that's out there now. I mean, the companies are still doing trials but I know we have a sister company that still can't get it to work and I think Time Warner and others -- I know in Rodchester, New York, they have been trying to do it for a year. Maybe it works now.

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In the statute it talks about residential competition. You know, it will be a lot harder to have it if people are paying \$30 for loops because us new entrants don't have the distribution network the LECs have. So you really won't have much competition for residence service in the state of Florida if loops were priced at \$30.

Q How would you propose to price those loops?

incremental cost. What we would want is to take the direct incremental cost of the loop that goes from, you know, the customer premise demarc point to the wire center and calculate it out. I don't know if BellSouth even has any LRIC cost studies they've ever done. If they haven't done any, you know, the Staff might want to do, as they did with interim number portability, and have a suggested, like, interim rate and require BellSouth to file cost studies that would be based on LRIC. And you know, when you say LRIC or TSLRIC or everything, I think it really gets at what are the elements in LRIC or in TSLRIC. How much joint and common cost is going to be in there? You know, what are all those factors.

One of our big considerations, I mean the LECs, a lot of them, I know in Conneticutt SNET was trying say that they had, like, pole costs in there, they had just all kinds of costs in there. And the Commission actually ordered interim rates that are below what SNET proposed. I think for a loop, in the Metro area, is a little over \$10. And they ordered SNET to file cost studies so the Staff could go through, and the Commission, and determine, you know,

what should the actual elements be and what level of contribution should come from joint and common costs or from the direct incremental costs.

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I'm not an economist and I don't want to pretend to be one, but it doesn't seem that -- if there's extra contribution or contribution from areas that shouldn't be able to be recovered in the loop, that that's not appropriate. Certainly the LEC has a lot of unused plant, too. I mean the LEC network is generally overbuilt. So if a lot of people are going to be buying unbundled loops, and if the market in general as Bell -- I know in the universal service document they filed some study saying that the Florida market was going to grow a lot -- they might not get -- we might take a customer from them, but they are going to get more minutes and more customers themselves because the market is growing. We're still going to be buying a loop from them oftentimes. They have that plant that is sitting there and this is just better utilization of the plant. So incrementally their costs could possibly go down for loops in the state of Florida because they will have economies of scale in their facilities.

Q Are there any other provisions in this agreement that you find unacceptable with regards

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to --

A With regards to loops? The unbundling docket hasn't really been defined just to be like the loop essential facility element kind of thing, okay, in terms of that. I mean, we're interested in things that I mentioned to you. You know, all of the RBOCs we've approached about doing what we want to do have said yes. So we just want to do the same thing in Florida that other RBOCs have.

Q . For example?

A That's cross-connecting, voice grade, using our digital loop carriers for concentration -- us doing our own concentration through collocation, and the LEC doing concentration for us, so those are things that we want to do, especially since -- I mean BellSouth seems willing to do it. I think we just -- we weren't able to come to terms in negotiation without doing concentration. So it was kind of like an all-or-nothing kind of thing. So I think maybe they are open to doing it because they have proposed it in Georgia.

MS. CANZANO: Well, Staff has no further questions. Nancy, do you have any questions?

MS. WHITE: Yes, I have a few.

EXAMINATION

BY MS. WHITE:

Q Again I'll start with some of the ones Staff asked you.

You say MFS had been certified as a co-carrier in approximately 15 states. In the orders or the certification proceeding, did they specifically term MFS to be a co-carrier? Did they use that language?

A I think every state has defined it a little different. Some states are local exchange carriers they say. I think every state defines it and uses a different word but the general definition is that you're a peer or co-carrier with the incumbent LEC.

Q You stated, I believe, in your discussion with Staff that cable TV is not generally interested in local loops.

A Well, I just --

Q I'm just looking for what the basis of that statement is.

A I haven't seen -- in proceedings I have been involved I haven't really seen in testimony any indication that really shows that they are real interested in loops. And I have had numerous conversations with people that work in the cable

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industry that have told me that. I mean they have their own loop facilities and I know it's commonly known in the market that they want to package telephone service and cable TV service, you know, to customers on their facilities. So I think that's commonly understood in the industry.

Q And that's why they don't need the local

- Q And that's why they don't need the local loop, are not interested in the local loop?
- A Well, I would gather that that would be the reason why. I mean if you have your own network investment, why would you want to have to buy something from someone else if you don't need it.
- Q I believe you also testified that in New York, on an initial basis, you tried to use private line and special access lines as unbundled loops?
 - A Yes.

- Q Did that occur -- have you been ordered to or agreed to the use of those types of lines in other states?
- A Not that I'm aware of. I mean a lot of states have ordered unbundled loops to be available in the manner that we're interested in. From what I know, BellSouth is the first LEC to propose really special access and private line in a proceeding.
 - Q I believe you also made a statement to the

effect that the LEC network was overbuilt?

A Generally there's a lot of unused capacity in the LEC network.

- Q What is the basis of that statement with regard to BellSouth? Do you have any studies or --
- A I don't have any particular data but I think they might have asked in interrogatory about that. So maybe we'll have information on that in a week or so.
- Q Would you agree that it's good business policy to build your network so that you have additional capacity?
 - A Excuse me. That you have what?
- Q Additional capacity; that you're not building it just to fit in the customers you have but to accommodate future ones?
- A I would think that you would forecast your business and try to build it based on your forecast. So if that meant building for future customers, that would make sense.
- Q And I believe you also stated that LECs, local exchange companies in other states, have agreed to what MFS is requesting with regard to unbundling. Have other local exchange companies agreed to it or is it a mixture of ones who have agreed to it and been ordered to do it by a commission?

ordered to do it by a commission?

- A I'd say both. In terms of the digital --
- Q I'd like to go through some of those states --

MR. FALVEY: I'm sorry, Nancy. I don't think he was finished with his answer. If you could let him --

Q I'm sorry.

A In terms of digital loop carriers, where we have physical collocation it has not been an issue at all, and that's in New York, Connecticut, California, and then in places where we have virtual collocation, Ameritech and Bell Atlantic have been cooperating with us very well, and we've actually done trials with them and I think it's close to full implementation.

Q Okay. Now, one of the states that you were certificated in is New York, and I believe you may have said in your testimony, your written testimony or in your deposition today, that NYNEX is agreeable or either agreeable or has been ordered to allow direct connection between collocated companies?

A Yes. They were ordered do that by the New York Commission.

Q Okay. Can you tell me -- is that priced on a flat rate basis or an usage sensitive basis?

1	A To just cross-connect between two carriers:
2	Q Right.
3	A At a collocated wire center.
4	Q Right.
5	A It's just flat rated cross-connect.
6	Q Do you know what the rate is for New York?
7	A No, I don't know off the top of my head, but
8	I think it's in like the \$5 range for a DS1.
9	Q Are there any other states that have
10	required that or any other states where the local
11	exchange companies have agreed to that?
12	A I don't know because I really focus on my
13	states. I know that case just because I was involved
14	in it initially.
15	Q All right.
16	A There may be others. I can't keep track of
17	50 states.
18	Q Excuse me just a minute. I'm looking over
19	my notes. (Pause)
20	MS. WHITE: All right, I think that's all I
21	have.
22	MS. CANZANO: Do any other parties have any
23	other questions?
24	MR. FALVEY: I have two real quick
25	MS. WHITE: I'm sorry, I do have one more,

1	if that's okay.
2	Q In any state that MFS is operational in, has
3	MFS been ordered by the Commission or has MFS agreed
4	to unbundle the pieces of its network?
5	A Not that I'm aware of. I know we have never
6	been ordered to and I'm not aware of if we've agreed
7	to unbundle.
8	Q Are you aware if you have been asked by
9	anyone to unbundle?
10	A Not that I'm aware of.
11	MS. WHITE: All right. Thank you. I'm
12	sorry. That's all.
13	MR. FALVEY: Just two quick follow ups.
14	EXAMINATION
15	BY MR. FALVEY:
16	Q Is MFS also certificated in Michigan
17	A Yes.
18	Q in addition to the states you listed.
19	Yes.
20	Is it true there may be others that you just
21	weren't able to recollect on the spot, other states
22	that MFS is certificated in?
23	A Yes.
24	Q And in the list of elements that contribute
25	to what you consider to be a price squeeze, is number

portability charges, is that an additional charge that may also factor in? Yes. Because that would be a cost that we would incur for most of our subscribers because most would like to keep their phone numbers. MR. FALVEY: That's it. MS. CANZANO: I believe that concludes our deposition. MS. WHITE: Thank you, Mr. Devine. I hope you get back to Atlanta today. (Deposition concluded at 2:10 p.m.)

ERRATA SHEET

3

DOCKET NO. 950984-TP

NAME: TIMOTHY T. DEVINE DATE: December 15, 1995

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AFFIDAVIT OF DEPONENT

testimony, Page 1 through 40, given on December 15,,

1995, in Docket No. 950984-TP, and find the same to

be true and correct, with the exceptions, and/or

corrections, if any, as shown on the errata sheet

have read the foregoing transcription of my

This is to certify that I, TIMOTHY T. DEVINE

TIMOTHY T. DEVINE

Sworn to and subscribed before me this

_____, day of ______, 19____

17 NOTARY PUBLIC

attached hereto.

18 State of _____

19 My Commission Expires:

FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA) CERTIFICATE OF OATH COUNTY OF LEON) I, the undersigned authority, certify that TIMOTHY T. DEVINE personally appeared before me and was duly sworn. WITNESS my hand and official seal this December 16th, 1995. Notary Public -State of Florida

STATE OF FLORIDA) CERTIFICATE OF REPORTER COUNTY OF LEON) 2 3 I, JOY KELLY, CSR, RPR and Official Commission Reporter, DO HEREBY CERTIFY that I was authorized 5 to and did stenographically report the foregoing deposition of TIMOTHY T. DEVINE. 7 I FURTHER CERTIFY that this transcript, consisting of 40 pages, constitutes a true record of the testimony given by the witness. 8 9 I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially 11 interested in the action. 12 DATED this December 16th, 1995. 13 14 15 16 JOY KELLY, CSR, Chief, Bureau of Reporting 17 Official Commission Reporter Telephone No. (904) 413-6732 18 19 20 21 22 23 24

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Resolution of Petition(s) to establis	h)	
nondiscriminatory rates, terms, and)	Docket No. 950984-TP
conditions for resale)	
involving local exchange companies and)	Filed: January 3, 1996
alternative local exchange companies)	•
pursuant to Section 364.161, Florida)	
Statutes	-	

METROPOLITAN FIBER SYSTEMS OF FLORIDA, INC. RESPONSES TO STAFF'S FIRST SET OF INTERROGATORIES

Metropolitan Fiber Systems of Florida, Inc. ("MFS") hereby responds to Staff's First Set of Interrogatories.

REQUEST: Staff Interrogatories, Set No. 1

DATED: December 12, 1995

ITEM: 1. Please provide a detailed outline of your proposed unbundling/resale agreements with Southern Bell.

- a. Have the parties agreed on any specific items? If so, what items?
- b. What specific items remain at issue?
- c. Of the items which remain at issue, which would MFS-FL characterize as contentious?

RESPONSE: 1. A detailed outline of the MFS-FL proposed interconnection and unbundling agreements with Southern Bell, dated September 11, 1995, is attached to my unbundling direct testimony as part of Exhibit TTD-1. The portion addressing unbundled loops and ports is at pages 21-23. A more recent version of this proposed agreement, dated November 8, 1995, is attached to my unbundling direct testimony as Exhibit TTD-4. The portion addressing unbundled loops and ports is at pages 23-26 of this later version. MFS-FL has since offered to Southern Bell the terms of its affiliate's agreement with Pacific Bell. This agreement is attached to my unbundling rebuttal testimony as Exhibit TTD-5.

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- a. None. Despite the fact that MFS-FL affiliates have negotiated interconnection agreements in Massachusetts, Connecticut, New York, and most recently in California, the Southern Bell insistence on including universal service in any interconnection agreement which pursuant to the intent of the Legislature is being decided in a separate docket has made it impossible for MFS-FL to come to terms with Southern Bell on any issue.
- b. Due to Southern Bell's insistence until very recently on including universal service in any interconnection agreement, all unbundling items remain at issue.
- c. The most contentious issues are the types of loops, ports, and digital loop carriers that will be unbundled, and the rates for those unbundled elements.

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REQUEST: Staff Interrogatories, Set No. 1

DATED: December 12, 1995

ITEM: 2. If you were able to negotiate unbundled elements and rates for the

elements, how soon would you be able to provide service to your target

customers?

RESPONSE: If Southern Bell were cooperative with respect to operational issues, MFS-FL

could begin providing service to its target customers within a matter of months.

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REQUEST: Staff Interrogatories, Set No. 1

DATED: December 12, 1995

ITEM:

3. Do you think BellSouth is being unreasonable in its negotiations? If so, why? Please be specific and identify any documentation supporting your claims.

RESPONSE: Yes. Prior to the filing of this Petition, BellSouth would not come to an agreement on any interconnection or unbundling issue absent an agreement on universal service. Therefore, while the parties appeared to be in agreement on certain issues, no formal agreement was reached on any issue. The opportunity for an agreement on a subset of unbundling issues -- such as an agreement that at least certain loops or ports would be provided -- was squandered by BellSouth's insistence on addressing universal service in these unbundling negotiations. BellSouth, by including the issue of universal service in unbundling negotiations, was not only unreasonable, but directly contravened the intent of the Legislature. The statute states that negotiations shall address the unbundling of "all of its network features, functions, and capabilities, including access to signaling databases, systems and routing processes . . . " Fla. Stat. § 364.161(1). The Legislature deliberately addressed the issue of an interim universal service mechanism separately (Fla. Stat. § 364.125), as reflected by the separate docket opened by the Commission, and the separate decision reached by the Commission in that docket. By linking universal service and unbundling, BellSouth is flouting the intent of the Legislature.

Recently, MFS-FL offered BellSouth the terms of the interconnection and unbundling agreement that its affiliate concluded with Pacific Bell in California which is attached to my rebuttal testimony at Exhibit TTD-5. BellSouth, however, would not consider an agreement on these terms. BellSouth offered only the vaguely worded agreement signed by certain other parties to the interconnection docket. This agreement provides virtually no detail on the issue of unbundling and is therefore entirely unacceptable.

BellSouth has also raised the possibility of an agreement with MFS-FL that does not address universal service. However, in recent negotiations, BellSouth still has not offered acceptable arrangements with respect to the fundamental issues of the types of elements to be unbundled, and the rates at which unbundled elements will be offered.

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Documentation demonstrating the fact that agreement might have been possible on certain issues if not for BellSouth's unreasonable focus on universal service are attached to my direct testimony at Exhibits TTD-1 and TTD-2, and my rebuttal testimony at Exhibit TTD-5.

RESPONDENT:

Timothy Devine.

DOCKET NO. 950984-TP

REQUEST: Staff Interrogatories, Set No. 1

DATED: December 12, 1995

ITEM: 4. Does MFS-FL have any unbundling and/or resale arrangements with any

local exchange companies in other jurisdictions?

RESPONSE: Yes. An affiliate of MFS-FL has unbundling and/or resale arrangements with Pacific Bell in California, as detailed in the agreement attached as Exhibit TTD-5 to my rebuttal testimony. The Michigan Public Service Commission has also ordered unbundled loops, priced at TSLRIC (\$8 per month per business line;

\$11 per month per residence line). In the matter of application of City Signal, Inc., for an order establishing and approving interconnection arrangements with Ameritech Michigan, Case No. U-10647, Opinion and Order at 32-63.

with Ameritech Michigan, Case No. U-10647, Opinion and Order at 32-63 Ordering ¶ C and D (Feb. 23, 1995). An affiliate of MFS-FL has an agreement with New Engaland Telephone for unbundled loops in

Massachusetts. Interim Co-Carrier Agreement at 7 (April 14, 1995) (provided to Staff in response to Document Requests in this docket). A Connecticut affiliate of MFS-FL has an agreement with Southern New England Telephone covering unbundling and resale. DPUC Investigation into the Unbundling of

the Southern New England Telephone Company's Local Telecommunications Network, Docket No. 94-10-02, Decision, Unbundling and Resale Stipulation attached to Decision (Sept. 22, 1995). An MFS affiliate is also a party to a separate unbundling docket, Docket No. 95-06-17, in which a draft order was

recently issued. Application of the Southern New England Telephone Company, Docket No. 95-06-17, Draft Decision (Dec. 20, 1995). In New York, the

Commission has ordered link unbundling. Re Comparably Efficient Interconnection Arrangements for Residential and Business Links, Case No. 91-C-1174, Order, 152 PUR 4th (May 25, 1994). In a more recent decision in the same case, the New York Commission set rates for unbundled elements at incremental cost. Order Considering Loop Resale and Links and Ports Pricing

(Nov. 1, 1995). The Illinois Commerce Commission has likewise ordered unbundled loops. *Illinois Bell Telephone Comany Proposed Introduction of a trial of Ameritech's Customers First Plan in Illinois*, Order at 38-61, 134-35 (April 7, 1995). The Washington Utilities and Transportation Commission has

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also ordered loop unbundling. Washington Utilities and Transportation Commission v. U S West Communications, Inc., Docket No. UT-941464, Fourth Supplemental Order Rejecting Tariff Filings and Ordering Refiling, Granting Complaints, In Part, at 47-53 (Oct. 31, 1995).

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REQUEST: Staff Interrogatories, Set No. 1

DATED: December 12, 1995

ITEM: 5. If Staff's Interrogatory No. 4 is answered in the affirmative, please

identify any and all unbundling and/or resale arrangements reflected in

tariffs filed with the appropriate public utility regulatory agency.

RESPONSE: The unbundling arrangements in the following states are reflected in tariffs:

Connecticut, Illinois, Michigan, and New York.

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REQUEST: Staff Interrogatories, Set No. 1

DATED: December 12, 1995

ITEM: 6. If Staff's Interrogatory No. 4 is answered in the affirmative, please

identify any and all unbundling and/or resale arrangements which are based on a written contractual agreement, other than those identified in

MFS-FL's response to Staff's Interrogatory No. 5.

RESPONSE: The unbundling and/ or resale arrangements in the following states are based on

written contractual agreements: Massachusetts, Connecticut, and California.

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REQUEST: Staff Interrogatories, Set No. 1

DATED: December 12, 1995

ITEM: 7. What specific elements of BellSouth's network should be made available

to MFS-FL on an unbundled basis?

RESPONSE: The network access line portion of local exchange service can be represented as being comprised of two key components: the loop, or "link," which provides the transmission path between the customer and the local exchange central office, and the "port," which represents the interface to the switch, and the capability to originate and terminate calls. Unbundling the local loop consists of physically unbundling the link and port elements, and pricing them on an economically viable basis.

Specifically, BellSouth should immediately unbundle all of its Exchange services into two separate packages: the link element plus cross-connect element and the port element plus cross-connect element.

MFS-FL seeks unbundled access and interconnection to the following forms of unbundled links: (1) 2-wire analog voice grade, also known as a "simple" link, which is simply a path for voice-grade service from an end user's premises to the central office; (2) 2-wire ISDN digital grade; and (3) 4-wire DS-1 digital grade. MFS-FL also requests that the following forms of unbundled ports be made available: (1) 2-wire analog line; (2) 2-wire ISDN digital line; (3) 2-wire analog DID trunk; (4) 4-wire DS-1 digital DID trunk; and (5) 4-wire ISDN DS-1 digital trunk.

In order for MFS-FL to efficiently offer telephone services to end users, BellSouth should unbundle and separately price and offer these elements such that MFS-FL will be able to lease and interconnect to whichever of these unbundled elements MFS-FL requires and to combine the BellSouth-provided elements with facilities and services that MFS-FL may provide itself.

MFS-FL also seeks unbundled access and interconnection to the link subelements that are resident in the modern digital loop carrier ("DLC") systems (which provide concentration) that LECs have begun to deploy in lieu of copper pair links. These DLC systems typically involve three main sub-elements: (1) a digital transport distribution facility operating at 1.544 Mbps ("DS1"), or

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multiples thereof, extending from the LEC end office wire center to a point somewhere in the LEC network (this point could be a manhole, pedestal, or even a telephone closet in a large building); (2) digital loop carrier terminal equipment housed in the manhole, pedestal, telephone closet, etc., at which the DS1 terminates and which derives from the DS1 facility 24 or more voice grade telephonic channels; and (3) copper pair feeder/drop facilities (lines) extending from the DLC terminal to a demarcation/connector block at various customers' premises.

To the extent these or similar systems are employed in BellSouth's network, MFS-FL should be allowed to interconnect to the unbundled subelements of these systems, where technically feasible and where capacity allows. This further unbundling of the links into digital distribution and voice-grade feeder/drop sub-elements is necessary in order to ensure that the quality of links MFS-FL leases from the BellSouth is equal to the quality of links that BellSouth provide directly to end users.

Essentially, MFS-FL would seek to lease as one element, the DS1-rate digital distribution facility and DLC terminal, and to lease as discrete incremental elements individual channels on voice-grade feeder/drop facilities. MFS-FL would expect to interconnect to the DS1 distribution facility at the BellSouth end office (via expanded interconnection arrangements offered pursuant to Substantive Rule § 23.92), but would also consider arrangements pursuant to which it could interconnect at other points. The generic interface for the DLC-type arrangements is described in Bellcore TR-TSY-000008, Digital Interface Between the SLC-96 Digital Loop Carrier System and Local Digital Switch, and TR-TSY-000303, Integrated Digital Loop Carrier ("IDLC") Requirements. Objectives and Interface and MFS-FL's Ericsson switch is compatible with these standards.

MFS-FL is also requesting to be able to place its own digital loop carrier in BellSouth's central office and to be able to cross-connect unbundled elements to MFS-FL's digital loop carrier in a virtual collocation arrangement.

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REOUEST: Staff Interrogatories, Set No. 1

DATED: December 12, 1995

ITEM: 9. What are the appropriate technical arrangements for the provision of

each unbundled element identified in the response to Staff's

Interrogatory No. 7?

RESPONSE: See definitions of "Link Element" or "Link" and "Port Element" or "Port" in

the MFS-FL Florida Co-Carrier Stipulation and Agreement dated November 8, 1995 (Exhibit TTD-4) at pages 4-5 and 7-8 respectively. (Additional copies attached.) As to digital loop carrier technical arrangements, see Bellcore TR-TSY-000008, Digital Interface Between the SLC-96 Digital Loop Carrier System and Local Digital Switch, and TR-TSY-000303, Integrated Digital Loop Carrier ("IDLC") Requirements, Objectives and Interface. MFS-FL, as stated in response to Interrogatory No. 7, is also requesting to be able to place its own digital loop carrier in BellSouth's central office and to be able to cross-connect unbundled elements to MFS-FL's digital loop carrier in a virtual collocation arrangement.

FLORIDA CO-CARRIER STIPULATION AND AGREEMENT

Record, a Bellcore document which defines industry standards for exchange message records.

- O. "Exchange Service" refers to all basic access line, PBX trunk, Centrex/ESSX-like services, ISDN services, or any other services offered to end users which provide end users with a telephonic connection to, and a unique telephone number address on, the public switched telecommunications network, and which enable such end users to place or receive calls to all other stations on the public switched telecommunications network.
- P. "Incumbent Local Exchange Carrier" or "ILEC" means a LEC which is currently or was previously the exclusive LEC in a given geographic area.
- Q. "Interconnection" means the connection of separate pieces of equipment, transmission facilities, etc., within, between or among networks. The architecture of interconnection may include several methods including, but not limited to co-location arrangements and mid-fiber meet arrangements.
- R. "Interexchange Carrier" or "IXC" means a provider of stand-alone interexchange telecommunications services.
- S. "Interim Number Portability" or "INP" means the transparent delivery of Local Telephone Number Portability ("LTNP") capabilities, from a customer standpoint in terms of call completion, and from a carrier standpoint in terms of compensation, through the use of existing and available call routing, forwarding, and addressing capabilities.
- T. "ISDN" means integrated Services Digital Network; a switched network service providing end-to-end digital connectivity for the simultaneous transmission of voice and data. Basic Rate Interface-ISDN (BRI-ISDN) provides for digital transmission of two 64 Kbps bearer channels and one 16 Kbps data channel (2B+D). Primary Rate Interface-ISDN (PRI-ISDN) provides for digital transmission of twenty-three (23) 64 Kbps bearer channels and one 16 Kbps data channel (23 B+D).
- U. "Line Side" refers to an end office switch connection that has been programmed to treat the circuit as a local line connected to a ordinary telephone station set. Line side connections offer only those transmission and signaling features appropriate for a connection between an end office and an ordinary telephone station set.
- V. "Link Element" or "Link" is a component of an Exchange Service; for purposes of general illustration, the "Link Element" is the transmission

FLORIDA CO-CARRIER STIPULATION AND AGREEMENT

facility (or channel or group of channels on such facility) which extends from a Main Distribution Frame, DSX-panel, or functionally comparable piece of equipment in an ILEC end office wire center, to a demarcation or connector block in/at a customer's premises. Traditionally, links were provisioned as 2-wire or 4-wire copper pairs running from the end office distribution frame to the customer premise; however, a link may be provided via other media, including radio frequencies, as a channel on a high capacity feeder/distribution facility which may in turn be distributed from a node location to the customer premise via a copper or coax drop facility, etc. Links fall into the following categories:

"2-wire analog voice grade links" will support analog transmission of 300-3000 Hz, repeat loop start or ground start seizure and disconnect in one direction (toward the end office switch), and repeat ringing in the other direction (toward the end user). This link is commonly used for local dial tone service.

"2-wire ISDN digital grade links" will support digital transmission of two 64 Kbps bearer channels and one 16 Kbps data channel. This is a 2B+D basic rate interface Integrated Services Digital Network (BRI-ISDN) type of loop which will meet national ISDN standards.

"4-wire DS-1 digital grade links" will support full duplex transmission of isochronous serial data at 1.544 Mbps. This T-1/DS-1 type of loop provides the equivalent of 24 voice grade/DS0 channels.

- W. "Local Exchange Carrier" or "LEC" means any carrier that provides facility-based Exchange Services utilizing a switch it owns or substantially controls in conjunction with unique central office codes assigned directly to that carrier. This includes both Incumbent Local Exchange Carriers ("ILEC") and Entrant Local Exchange Carriers ("ELEC").
- X. "Local Telephone Number Portability" or "LTNP" means the technical ability to enable an end user customer to utilize its telephone number in conjunction with any exchange service provided by any Local Exchange Carrier operating within the geographic number plan area with which the customer's telephone number(s) is associated, regardless of whether the customer's Chosen Local Exchange Carrier is the carrier which originally assigned the number to the customer, without penalty to either the customer or its chosen local exchange carrier.

FLORIDA CO-CARRIER STIPULATION AND AGREEMENT

- "SAC Code" is typically associated with a specialized telecommunications service which may be provided across multiple geographic NPA areas; 800, 900, 700, and 888 are examples of Non-Geographic NPAs.
- FF. "NXX", "NXX Code", "Central Office Code" or "CO Code" is the three digit switch entity indicator which is defined by the "D", "E", and "F" digits of a 10-digit telephone number within the North American Numbering Plan ("NANP"). Each NXX Code contains 10,000 station numbers. Historically, entire NXX code blocks have been assigned to specific individual local exchange end office switches.
- GG. "On-Line Transfer" means the transferring of an incoming call to another telephone number without the call being disconnected.
- HH. "Permanent Number Portability" or "PNP" means the use of a database solution to provide fully transparent LTNP for all customers and all providers without limitation.
- II. "Plain Old Telephone Service Traffic" or "POTS traffic" refers to calls between two or more Exchange Service users, where both Exchange Services bear NPA-NXX designations associated with the same LATA or other authorized area (e.g., Extended Area Service Zones in adjacent LATAs). POTS traffic includes the traffic types that have been traditionally referred to as "local calling", as "extended area service (EAS)", and as "intraLATA toll".
- "Port Element" or "Port" is a component of an Exchange Service; for purposes of general illustration, the "Port" is a line card and associated peripheral equipment on an ILEC end office switch which serves as the hardware termination for the customer's exchange service on that switch and generates dial tone and provides the customer a pathway into the public switched telecommunications network. Each Port is typically associated with one (or more) telephone number(s) which serves as the customer's network address. Port categories include:
 - "2-wire analog line port" is a line side switch connection employed to provide basic residential and business type Exchange Services.
 - "2-wire ISDN digital line port" is a Basic Rate Interface (BRI) line side switch connection employed to provide ISDN Exchange Services.
 - "2-wire analog DID trunk port" is a direct inward dialing (DID) trunk side switch connection employed to provide incoming trunk type Exchange Services.

FLORIDA CO-CARRIER STIPULATION AND AGREEMENT

"4-wire DS-1 digital DID trunk port" is a direct inward dialing (DID) trunk side switch connection employed to provide the equivalent of 24 analog incoming trunk type Exchange Services.

"4-wire ISDN digital DS-1 trunk port" is a Primary Rate Interface (PRI) trunk side switch connection employed to provide the ISDN Exchange Services.

- KK. "Rate Center" means the specific geographic point and corresponding geographic area which have been identified by a given LEC as being associated with a particular NPA-NXX code which has been assigned to the LEC for its provision of Exchange Services. The "rate center point" is the finite geographic point identified by a specific V&H coordinate, which is used to measure distance-sensitive enduser traffic to/from Exchange Services bearing the particular NPA-NXX designation associated with the specific Rate Center. The "rate center area" is the exclusive geographic area which the LEC has identified as the area within which it will provide Exchange Services bearing the particular NPA-NXX designation associated with the specific Rate Center. The Rate Center point must be located within the Rate Center area.
- LL. "Rating Point", sometimes also referred to as "Routing Point" means a location which a LEC has designated on its own network as the homing (routing) point for traffic inbound to Exchange Services provided by the LEC which bear a certain NPA-NXX designation. Pursuant to Bellcore Practice BR 795-100-100, the Rating Point may be an "End Office" location, or a "LEC Consortium Point of Interconnection". Pursuant to that same Bellcore Practice, examples of the latter shall be designated by a common language location identifier (CLLI) code with (x)KD in positions 9, 10, 11, where (x) may be any alphanumeric A-Z or 0-9. The Rating Point/Routing Point need not be the same as the Rate Center Point, nor must it be located within the Rate Center Area.
- MM. "Reference of Calls" refers to a process in which calls are routed to an announcement which states the new telephone number of an end user.
- NN. "Service Control Point" or "SCP" is the node in the signaling network to which informational requests for service handling, such as routing, are directed and processed. The SCP is a real time database system that, based on a query from the SSP, performs subscriber or application-specific service logic, and then sends instructions back to the SSP on how to continue call processing.

DOCKET NO. 950984-TP

REQUEST: Staff Interrogatories, Set No. 1

DATED: December 12, 1995

ITEM: 10. Please provide examples of how MFS-FL intends to use each proposed unbundled network element identified in the response to Staff's

Interrogatory No. 7.

loops from BellSouth to provide such access.

RESPONSE: The network access line portion of local exchange service can be represented as being comprised of two key components: the loop, or "link," which provides the transmission path between the customer and the local exchange central office, and the "port," which represents the interface to the switch, and the capability to originate and terminate calls. Unbundling the local loop consists of physically unbundling the link and port elements, and pricing them on an economically viable basis. Loop and port unbundling will permit MFS-FL to provide service to a significantly expanded customer base, and will permit competition to spread more rapidly throughout Florida. When MFS-FL does not have the appropriate loop facilities to access an end user location, MFS-FL will purchase unbundled

In addition to BellSouth's limited proposal to provide an unbundled 2-wire voice grade loop and a 2-wire analog port, BellSouth should provide unbundled access and interconnection to the following unbundled link and port categories: Link Categories - (1) 2-wire ISDN digital grade, and (2) 4-wire DS-1 digital grade; Port Categories - (1) 2-wire ISDN digital line, (2) 2-wire analog DID trunk, (3) 4-wire DS-1 digital DID trunk, and (4) 4-wire ISDN DS-1 digital trunk. This level of unbundling will allow competitors and users to pay for only those portions of the loop services that they want or need, and to obtain access to the same level of technology as BellSouth currently provides. Line side interconnection will allow competing carriers to directly reach end user customers who are currently reachable efficiently only through the BellSouth bottleneck.

In order for MFS-FL to efficiently offer telephone services to end users, BellSouth should unbundle and separately price and offer the requested elements such that MFS-FL will be able to lease and interconnect to whichever of these unbundled elements MFS-FL requires and to combine the BellSouth-provided elements with facilities and services that MFS-FL may provide itself.

DOCKET NO. 950984-TP

As for digital loop carrier systems as described in response to Interrogatory No. 7, to the extent these or similar systems are employed in BellSouth's network, MFS-FL should be allowed to interconnect to the unbundled subelements of these systems, where technically feasible and where capacity allows. This further unbundling of the links into digital distribution and voice-grade feeder/drop sub-elements is necessary in order to ensure that the quality of links MFS-FL leases from the BellSouth is equal to the quality of links that BellSouth provide directly to end users.

MFS-FL will also use 2- and 4-wire analog and digital loops to cross-connect BellSouth unbundled elements to MFS-FL's digital loop carrier in a virtual collocation arrangement.

DOCKET NO. 950984-TP

REQUEST: Staff Interrogatories, Set No. 1

DATED: December 12, 1995

ITEM: 11. What are the appropriate financial arrangements for each unbundled element identified in the response to Staff's Interrogatory No. 7?

RESPONSE: Absent any mitigating circumstances that might justify lower rates, BellSouth's Long Run Incremental Costs ("LRIC") should serve as the target price and cap for unbundled loops where such loops must be employed by competitive carriers to compete realistically and practically with the entrenched monopoly service provider, BellSouth. LRIC is the direct economic cost of a given facility, including cost of capital, and represents the cost that the LEC would otherwise have avoided if it had not installed the relevant increment of plant -i.e., local loops in a given region. Thus, by leasing a loop to a competitor, an incumbent LEC would be allowed to recover no less than the full cost it would otherwise have avoided had it not built the increment of plant that it has made available, through loop unbundling, for use by a competitor in serving the customer to whose premises the loop extends. For purposes of calculating LRIC-capped rates for unbundled loops, the LEC would be required to perform long-run incremental cost studies for each component of the local exchange access line, including the link, port, cross-connect element and local usage elements. In addition, the volume and term discounts that are offered to end users should be made available to competitive local exchange carriers.

There is, however, an important qualification to this general principle. LRIC is the appropriate pricing methodology *only* if it is applied consistently in setting the price both for the unbundled services provided to co-carriers and the bundled services offered by BellSouth to its own end users. New entrants should not be subject to discriminatory charges that BellSouth does not apply to its own end users. Therefore, the Commission should adopt two additional pricing guidelines to prevent such discrimination:

- First, the sum of the prices of the unbundled rate elements (link, port, and cross-connect) must be no greater than the price of the bundled dial tone line.
- Second, the ratio of price to LRIC for each element and for the bundled dial tone line must be the same.

DOCKET NO. 950984-TP

These two guidelines would require that the prices for the unbundled dial tone line components be derived from the existing access line rates established in BellSouth's effective tariffs. As long as those rates cover LRIC, the unbundled component prices determined by these guidelines would also cover LRIC.

DOCKET NO. 950984-TP

REQUEST: Staff Interrogatories, Set No. 1

DATED: December 12, 1995

ITEM: 12. For each requested unbundled network element, please provide detailed examples of the pricing methodology for these elements as discussed in

Timothy Devine's direct testimony.

RESPONSE: The following hypothetical example is provided for a simple, voice-grade residential loop, port, and cross-connect. All of the figures are hypothetical, including both price and cost figures, and are utilized simply to demonstrate the methodology recommended by MFS-FL, as fully explained in response to Staff Interrogatory No. 11. (The key for the acronyms utilized is provided on the attached exerpt from p. 25 of Exhibit TTD-4, the November 8, 1995 Proposed Florida Co-Carrier Stipulation and Agreement.)

Pb (\$10.00)/Cb (\$9.00)=PL (\$7.50)/CL(\$6.75)=Pp (\$1.50)/Cp (\$1.35)=PC (\$1.00)/Cc (\$.90)

and

Pb (\$10.00) = PL (\$7.50) + Pp (\$1.50) + PC (\$1.00)

Similar hypothetical demonstrations could be made for each additional element requested by MFS-FL. To the extent that these are hypothetical demonstrations, additional examples would merely include different hypothetical cost and price figures.

FLORIDA CO-CARRIER STIPULATION AND AGREEMENT

B. <u>Compensation</u>

Prices for unbundled elements should be based on long run service incremental cost, should depart from cost in equal proportions, and should be imputed into the bundled service rates, such that the following pricing formulae are satisfied:

Where:

PB = Price of the bundled service (including all applicable discounts).

CB = Long-run service incremental cost ("LRSIC") of the bundled service.

PL = Price of the unbundled link element.

CL = LRSIC of the unbundled link element.

PP = Price of the unbundled port element.

CP = LRSIC of the unbundled port element.

PC = Price of the unbundled cross-connect element.

Cc = LRSIC of the unbundled cross-connect element.

ILEC shall provide links and ports to ELEC at the following monthly recurring rates:

	Price, each when delivered over:	
	an individual	a digital
	2-wire hand-off	DS-1 hand-off
2-wire analog voice grade link	\$	\$
2 wire ISDN digital grade link	\$	\$
4-wire DS-1 digital grade link	\$ <u>n/a</u>	\$7

⁷ To be provided as a Special Access or Private Line DS-1 Channel Termination/Local Distribution Channel, subject to the most favorable tariff or contract terms for which ELEC is eligible, except in those situations where:

and/or

The ILEC offers its own end user customers a bundled DS-1 digital grade Exchange Service (continued...)

The ILEC offers its own end user customers a bundled DS-1 digital grade Exchange Service at a bundled rate which is less than the sum of the unbundled 4-wire DS-1 digital DID trunk port rate and the most favorable Channel Termination/Local Distribution Channel rate for which ELEC is eligible. In such instances, the ILEC shall provide 4-wire DS-1 digital grade links to ELEC at a rate less than or equal to the price of the bundled DS-1 digital grade Exchange Service less the unbundled 4-wire DS-1 digital DID trunk port rate, for ELEC's use in the provision of DS-1 digital grade Exchange Services.

DOCKET NO. 950984-TP

REQUEST: Staff Interrogatories, Set No. 1

DATED: December 12, 1995

ITEM: 13. Explain why current local exchange company tariffed services are not sufficient for providing your intended services, such as special access or

private line loops.

RESPONSE: It would not be economical and would not be practical from a time of installation perspective. While there is not much physical difference between an unbundled link and a private line or special access channel, there are differences in technical standards as well as engineering and operational practices. The voice-grade

channels offered under the private line and special access tariffs provide a dedicated transmission path between an end user's premises and a LEC wire center, just as unbundled simple links would. The major differences between these existing services and unbundled simple links are the additional performance parameters required for private line and special access services, beyond what is necessary to provide "POTS" (plain old telephone service); and the methods used by LECs to install and provision the services. Currently, installation of a private line or special access channel typically requires special engineering by the LEC and therefore takes longer and costs more than installation of a "POTS" line. This special engineering begins with a line that would be suitable for "POTS," but then adapts it to conform to specialized performance parameters. Therefore, no single private line service offering provided by BellSouth is likely to represent the basic co-carrier unbundled loop facility. Private line and special access services also

include additional performance standards that are not necessary for the delivery of "POTS" service.

MFS-FL's major concern is that, in the future, when a customer decides to replace its existing BellSouth dial tone service with MFS-FL dial tone service, MFS-FL should be able to have the customer's existing link facility rolled over from the BellSouth switch to an MFS-FL expanded interconnection node in the same central office, without having the entire link re-provisioned or engineered over different facilities. This roll-over, including the seamless roll-over to MFS-FL when the customer is taking advantage of number retention, should occur within the same ordering provision interval as BellSouth provides for bundled local exchange service to end users and with minimal service interruption to those customers.

DOCKET NO. 950984-TP

In addition, it has been MFS's experience that, in most cases, the tariffed rate of a private line service exceeds the tariffed rate of a bundled dial tone business or residence line. In fact, private lines or special access channels are typically priced at substantial premiums today. LECs have set prices for these existing services at premium prices, on the basis that these services require additional performance parameters beyond what is necessary to provide POTS. As such, applying the tariffed rate of a private line or special access channel for unbundled loops will place MFS-FL in a "price squeeze," in that it would be paying more for the unbundled loops than it would be allowed to recover through end user retail rates. For example, the unbundled loop rate agreed to by Time Warner and others is the special access rate of approximately \$25.00 per month. BellSouth's residential end user rate is approximately \$10.00 per month, creating a significant and direct price squeeze. Left to its own devices, a dominant incumbent LEC such as BellSouth, would not tariff the unbundled loop facility at the appropriate LRIC price. Instead, it would likely choose to continue to apply the premium rate to an entrant like MFS-FL in order to raise an additional barrier to competition.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Resolution of Petition(s) to establish	h)	
nondiscriminatory rates, terms, and)	Docket No. 950984-TP
conditions for resale)	
involving local exchange companies and)	Filed: January 3, 1996
alternative local exchange companies)	·
pursuant to Section 364.161, Florida)	
Statutes		

METROPOLITAN FIBER SYSTEMS OF FLORIDA, INC. RESPONSES TO STAFF'S FIRST REQUEST FOR PRODUCTION OF DOCUMENTS

Metropolitan Fiber Systems of Florida, Inc. ("MFS") hereby responds to Staff's First

Request for Production of Documents.

REQUEST: Staff Request for Production, Set No. 1

DATED: December 12, 1995

ITEM:

1. Please provide the supporting documentation used in setting all of your prices during negotiations for unbundling and/or resale of BellSouth's network.

RESPONSE: MFS-FL relied upon the rates, orders, and agreements relating to unbundled elements from other states, using its experience in these states as its baseline. These orders and agreements are provided in response to Staff Document Request Nos. 2 and 3. In setting prices during negotiations, MFS-FL also takes into account rates charged by BellSouth to end users (which are publicly available) against which it must compete. MFS-FL considers whether a price squeeze will be effected at any given rate and whether that rate will allow for effective competition. In addition to rates, orders, and agreements from other states, there are no other responsive documents.

METROPOLITAN FIBER SYSTEMS OF FLORIDA, INC. RESPONSES TO STAFF'S FIRST REQUEST FOR PRODUCTION OF DOCUMENTS

DOCKET NO. 950984-TP

REQUEST: Staff Request for Production, Set No. 1

DATED: December 12, 1995

ITEM: 2. Please provide a copy of every unbundling and/or resale arrangement

identified in MFS-FL's response to Staff's Interrogatory No. 5.

RESPONSE: MFS-FL will provide all responsive documents within its possession, custody,

or control.

METROPOLITAN FIBER SYSTEMS OF FLORIDA, INC. RESPONSES TO STAFF'S FIRST REQUEST FOR PRODUCTION OF DOCUMENTS

DOCKET NO. 950984-TP

REQUEST: Staff Request for Production, Set No. 1

DATED: December 12, 1995

ITEM: 3. Please provide a copy of every unbundling and/or resale arrangement

identified in MFS-FL's response to Staff's Interrogatory No. 6.

RESPONSE: MFS-FL will provide all responsive documents within its possession, custody,

or control.

RESPONDENT: Timothy Devine. •

SERVED this 3rd day of January, 1996.

Richard M. Rindler

James C. Falvey

Swidler & Berlin, Chtd.

3000 K Street

Ste. 300

Washington, D.C. 20007

Attorneys for Metropolitan Fiber Systems of Florida, Inc.

INTERIM CO-CARRIER AGREEMENT

Pursuant to this agreement, MFS Intelenet of Massachusetts, Inc. ("MFSI") and New England Telephone ("NET") will extend certain arrangements to one another in the Commonwealth of Massachusetts, as described and according to the terms, conditions and pricing specified hereunder.

1. DESCRIPTION OF ARRANGEMENTS AND COMPENSATION

This agreement provides for the establishment and maintenance of the following arrangements between the networks of MFSI and NET.

a) MEET-POINT BILLING ARRANGEMENT

Description MFSI and NET shall establish meet-point billing arrangements to enable MFSI to provide switched access services to third parties via a NET access tandem switch, in accordance with the Meet-Point Billing and Provisioning guidelines adopted by the Ordering and Billing Forum. For each NXX code assigned to MFSI, MFSI will designate within the geographic numbering plan area (NPA) with which the NXX code is associated, a service area within which MFSI will offer Local Exchange services? bearing that NPA-NXX designation. MFSI and NET shall arrange for MFSI to sub-tend the NET access tandem to which NET's own end offices which serve the same service area sub-tend for the provision of switched access services. MFSI shall designate on its network a point of interconnection (POI) which shall serve as the rating point for the NXX code. At MFSI's discretion, the meet-point connection for the tandem sub-tending arrangement shall be established at that POI, at a co-location facility maintained by MFSI3 at the NET access tandem, or at any point mutually agreed to by MFSI and NET. Common channel signalling (CCS) shall be utilized in conjunction with meet-point billing arrangements to the extent available. MFSI and NET will use their best reasonable efforts, individually and collectively, to maintain provisions in their respective federal and state access tariffs sufficient to reflect this meet-point billing arrangement. Meet Point Billing will not apply to redirected calls under Interim Number Portability (INP).

<u>Compensation</u> MFSI and NET will exchange all call detail records associated with switched access traffic provided via the meet-point billing arrangement in a timely fashion, as necessary to accurately and reliably rate and bill third parties for such traffic.

e.g., Feature Group B, Feature Group D, 800 access, and 900 access.

As employed herein, the term *Local Exchange service* refers to all basic access line, PBX trunk, Centrex and Centrex-like services, or any other services offered to end users which provide end users with a telephonic connection to, and a unique telephone number address on, the public switched telecommunications network, and which enable such end users to place or receive calls to all other stations on the public switched telecommunications network.

Including any co-location facilities maintained by any MFS Communications Company subsidiary.

MFSI and NET shall work cooperatively with one another to develop a mutually agreeable compensation arrangement for the Meet Point Billing process.⁴

b) RECIPROCAL TRAFFIC EXCHANGE ARRANGEMENT

Description For purposes of this agreement, the term Plain Old Telephone Service (POTS) traffic shall refer to calls between a user of an MFSI-provided local exchange service where MFSI provides the dial tone to that user, and a user of an NET-provided local exchange service where NET provides the dial tone to that user and where both local exchange services bear NPA-NXX designations associated with the same LATA. The term *Local traffic* shall be defined as POTS traffic which originates and terminates within a local calling area as defined in Massachusetts Tariff D.P.U. No. 10, Section 5. MFSI and NET will reciprocally terminate POTS calls originating on each other's network, via Feature Group D (FGD) terminating access arrangements they shall extend one another in accordance with their respective state access tariffs, except as modified herein. The arrangements shall be engineered to an objective P.01 grade of service. Common channel signalling (CCS) will be provided where and as available. For traffic for which CCS is not available, in-band multi-frequency (MF), wink start, E&M channelassociated signalling will be forwarded. NET agrees to file a Local Transport Restructure tariff, which will include the availability of switched access service at collocated sites. with the Massachusetts Department of Public Utilities, containing terms and conditions similar to those in the NYNEX FCC No. 1 tariff, within 45 days of the execution of this agreement. The FGD arrangements used by either party to terminate POTS traffic pursuant to this agreement may also be employed to terminate any other FGD traffic to that party, subject to payment of the applicable tariffed charges for such other traffic

<u>Compensation</u> Upon ordering Switched Access Service and on a quarterly basis, the parties shall provide one another with updated percentage of use factors for traffic terminated over the Feature Group D arrangements they extend to one another, as follows:

Effective on the first day of January, April, July and October, each party shall report to the other the actual percentages of intrastate non-local, and intraLATA local minutes of use which the reporting party terminated to the other party during the preceding calendar quarter, by FGD arrangement, by LATA. Each party shall forward the revised report so that it is received by the other party no later than the 21st day of January, April, July and October.

For example, typical charges could be \$100.00 per month for the Meet Point Billing arrangement plus \$.0115 per billing record processed.

For the period prior to the effective date of MFSI's state access tariff, MFSI shall extend intrastate access arrangements to NET according to the terms and conditions contained in NET's state access tariff, as modified herein.

(2) The percentages of use changes so reported will be used by each party as the basis for billing over the next three months and the changes will be effective on the bill date of the month immediately following the effective quarter. No prorating or back billing will be done based on the report.

Until such time as the Massachusetts Department of Public Utilities has established the terms and conditions for compensation between local exchange carriers and provided that both parties offer their exchange services to any willing customer in their respective service territories as defined in their respective Massachusetts Local Exchange Tariffs and both Residence and Business Exchange Services are reflected in their respective state tariffs, MFSI and NET shall reciprocally compensate one another for terminating each others' traffic according to the effective FGD rates listed in NET's effective state access tariffs, except as modified herein. The parties shall bill each other for terminating one another's local traffic at an average rate of \$.0150 per minute. The actual rate charged shall be comprised of the existing minute of use rate elements for terminating access based on the network elements used, including a discounted Carrier Common Line charge and shall include night and weekend discounts.

c) NETWORK PLATFORMS

(1) <u>9-1-1/E9-1-1</u>

For Basic 911 service NET will provide to MFSI a list consisting of each municipality in Massachusetts that subscribes to Basic 911 Service. The list will provide the E911 conversion date and, if available, for network routing purposes, a ten digit directory number representing the appropriate emergency answering position for each municipality subscribing to Basic 911 Service.

MFSI will arrange to accept 911 calls from its customers in municipalities that subscribe to Basic 911 Service and translate the 911 call to the appropriate 10 digit directory number as stated on the list provided by NET and route that call to NET at the appropriate tandem or end office over the same trunk group(s) that other local traffic is sent.

When a municipality converts to E911 Service, MFSI shall discontinue the Basic 911 procedures and begin the E911 procedures.

For E911 service, MFSI will connect Feature Group D trunks, to be jointly determined between NET and MFSI, from MFSI's switch to each E911 tendem serving the areas which MFSI provides local exchange services; including the designated secondary E911 tandem. (For example, based on MFSI's proposed service areas in LATA 128, MFSI would be required to connect to the Wakefield, Medfield, Westboro, and Northampton E911 tandems.) If a Massachusetts municipality has converted to E911 service, MFSI will forward "911" calls to the appropriate E911 primary tandem, along with ANI, based upon the current E911 end office to tandem homing arrangement. If the primary tandem trunks are unavailable, MFSI will alternate route the call to the designated secondary E911 tandem. If the secondary tandem trunks are unavailable, MFSI will alternate route the call to the appropriate NET Traffic Operator Position System (TOPS) tandem.

In order to ensure the proper working of the system, along with accurate customer data, MFSI will provide daily updates to the E911 database. NET and MFSI will work cooperatively to define record layouts, media requirements, and procedures for this process.

Compensation NET will bill Basic 911 traffic at the same rates it bills other local traffic from MFSI. For E911 service, MFSI will pay a monthly rate based on the number of MFSI telephone numbers in the E911 database. The monthly rate will be based on the NET E911 costs in Massachusetts as reported to the Massachusetts Department of Public Utilities each April and will be calculated by dividing the total E911 costs for Residence by the total number of residence telephone numbers in the data base added to the total E911 costs for business divided by the total number of business telephone numbers in the data base. The total annual costs for Residence and Business will be divided by 12 to develop the total monthly cost for Residence and Business. The monthly bill to MFSI will be calculated by multiplying the number of Residence MFSI telephone numbers contained in the E911 Data Base times the monthly rate per telephone number for Residence plus the number of business MFSI telephone numbers in the E911 data base times the monthly rate per telephone number for Business.

(2) <u>INFORMATION SERVICES BILLING AND COLLECTION</u>

At MFSI's option, MFSI may send information Services traffic to NET over an exchange facility such as Flexpath and NET will rate and bill each information Services call to MFSI's exchange facility. NET will provide MFSI with a listing of all information Services rates and charges so that MFSI may bill its customers. Until such time as MFSI is ready to implement the aforementioned process, MFSI will block information Services traffic at its switching location so that it is not forwarded to NET. If MFSI elects to provide and obtains an approved tariff for the provision of information Services, NET will work cooperatively with MFSI to support the provision and billing of said service.

(3) DIRECTORY LISTINGS AND DIRECTORY DISTRIBUTION

<u>Description</u> NET will include MFSI's customers' telephone numbers in its "White Pages" and "Yellow Pages" basic directory listings and directory assistance databases associated with the areas in which MFSI provides services to such customers, and will distribute such directories to such customers. MFSI will provide NET with its directory listings and daily updates to those listings in a format required by NET; NET will provide MFSI a magnetic tape or computer disk containing the proper format (Master Street Address Guide - MSAG). MFSI and NET will accord MFSI's directory listing information the same level of confidentiality which NET accords its own directory listing information, and NET shall ensure that access to MFSI's customer proprietary confidential directory information will be limited solely to those NET employees who are directly involved in the preparation and provisioning of listings and directory services. The terms and the rate specified below shall apply to listings of MFSI customer numbers falling within NXX codes directly assigned to MFSI, and to listings of MFSI customer telephone numbers which are retained by MFSI pursuant to the Interim Number Portability Arrangement described below.

<u>Compensation</u> For the activities described above, NET will charge MFSI a one-time charge of \$5.00 per basic listing or listing change. NET shall not sell any bulk directory lists to third parties, where such lists include MFSI customer listings, without the buyer receiving written consent from MFSI. Any royalty payments to MFSI shall be negotiated by MFSI with the buyer of the listings prior to giving consent to publish.

(4) DIRECTORY ASSISTANCE (DA)

<u>Description</u> NET will provide MFSI operators an on-line access to NET's directory assistance database, when and where such access becomes generally available to organizations outside of NET. At MFSI's option, NET will provide MFSI with 411 directory assistance service, MFSI-branded directory assistance and call completion (where available).

Compensation NET will provide unbranded directory assistance at a charge of \$.27 per call for a maximum of two requests per call and branding and call completion, for an additional \$.05 and \$.25 per call, respectively.

(5) YELLOW PAGE MAINTENANCE

NET will work cooperatively with MFSI to ensure that Yellow Page advertisements purchased by customers who switch their service to MFSI (including MFSI NXX and MFSI customers utilizing the interim number portability arrangement) are maintained without interruption.

(6) CLASS INTER-OPERABILITY

<u>Description</u> MFSI and NET will provide LEC-to-LEC Common Channel Signalling (CCS) to one another, where available, in conjunction with all POTS traffic, in order to enable full inter-operability of CLASS features and functions. All CCS signalling parameters will be provided including automatic number identification (ANI), originating line information (OLI) calling party category, charge number, etc. All privacy indicators will be honored, and NET and MFSI will cooperate on the exchange of Transactional Capabilities Application Part (TCAP) messages to facilitate full inter-operability of CCS-based features between their respective networks.

<u>Compensation</u> CCS will be provided Signal Transfer Point to Signal Transfer Point. Given that CCS will be used cooperatively for the mutual handling of traffic, link facility and link termination charges will be prorated 50% between the parties.

(7) OPERATOR TRUNKS

<u>Description</u> MFSI and NET will provide LEC-to-LEC Busy Line Verification and Interrupt (BLV/I) trunks to one another, in conjunction with POTS traffic, to enable each company to support this functionality.

<u>Compensation</u> MFSI and NET shall compensate one another for the use of BLV/I according to the effective rates listed in NET's effective access tariffs.

d) INTERIM NUMBER PORTABILITY ARRANGEMENTS

<u>Description</u> NET will provide MFSI an Interim Number Portability (INP) service. In the event a customer of NET elects to become a customer of MFSI, and the customer elects to utilize the original telephone number(s) corresponding to the exchange service(s) it previously received from NET, in conjunction with the exchange service(s) it will now receive from MFSI, INP will be provided as follows:

- Upon receipt of a letter of agency (LOA) from the customer assigning the telephone number(s) to MFSI, NET will implement an arrangement, whereby all calls to the original telephone number(s) will be forwarded to a new telephone number(s) designated by MFSI within an NPA-NXX block directly assigned to MFSI. NET will route the forwarded traffic to MFSI, only via the MFSI trunk groups established for the interchange of end user traffic between their respective networks.
- MFSI will become the customer of record for the original NET telephone numbers subject to this arrangement, so long as MFSI continues to use the INP arrangement for the use of the customer originally assigned the NET telephone number.
- NET will update its Line Information Data Base (LIDB) listings for forwarded numbers, and restrict or cancel calling cards associated with auch numbers, as directed by MFSI.
- -- MFSI will receive a single consolidated master billing statement each month, per wire center, for all charges related to those numbers (including collect, calling card, and 3rd-number billed calls), with sub-account detail by retained number. NET will deliver the consolidated billing statements to MFSI on a magnetic tape, in a format which meets existing industry standards.
- NET will work cooperatively with MFSI to develop a process to coordinate timely INP cut-overs with unbundled link cut-overs.
- A monthly recurring fee of \$4.00 shall apply per forwarded business line telephone number and \$2.00 per forwarded residence line telephone number. No other non-recurring or recurring charges will apply, except for authorized collect, calling card or 3rd-number billed calls billed to the retained numbers.
- For all traffic delivered to one party by the other party via the INP arrangements described above, including redirected interLATA calls, the party who sent the call via the INP arrangement shall pay the party who terminates the call, terminating access pursuant to their respective Intrastate Access Tariffs for the exchange of intraLATA (including local) end user traffic.
- Upon request, MFSI shall provide to NET a service that is equivalent to INP service under the same or similar conditions as specified herein.

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UNBUNDLED EXCHANGE ACCESS SERVICE ARRANGEMENTS

<u>Description</u> NET shall arrange to unbundle its local exchange services in order to provide a Link Service. The link element of a local exchange service is the transmission facility (or a voice grade channel on such facility) which runs from a distribution frame in a NET end office wire center, to a demarcation or connector block in/at a customer's premises.*

NET shall unbundle the link element such that MFSI will be able to lease and interconnect at the LEC end office via its Collocation Arrangement to the link service, and to combine the NET-provided link with any facilities and services that MFSI may itself provide, in order to efficiently offer telephone services to end users. The following principles should govern the unbundling of local exchange services into links.

- The link service shall be provided subject to the availability of facilities on a firstcome first served basis.
- An MFSI customer should be able to convert its full service to a link-only service and assign such service to MFSI, with no penalties to MFSI or the customer unless minimum service periods, as specified in NET's DPU No. 10 or 15 Tariff apply and MFSI shall be billed the applicable Non Recurring charges as outlined in NET's DPU No. 10 or 15 tariff. MFSI should be able to have all link facilities which it purchases (either directly or by previous assignment by a customer) billed on a single consolidated statement per end office.

Compensation The monthly rate for the Link and cross-connection (Main Distribution Frame to the Point of Termination bay tie cable) Service shall be \$16.50 per link plus the appropriate EUCL charge as specified in NYNEX FCC No. 1. Non-Recurring charges as specified in D.P.U. Mass. No. 10, Section 3, shall also apply.

f) 800 SERVICE

MFSI and NET agree to exchange records for the proper billing of intraLATA 800 traffic. MFSI and NET agree to pay each other applicable access and records processing charges for every intraLATA 800 call terminated to their respective networks from the other's local exchange end users assigned telephone numbers associated within a single LATA in the other Carrier's operating territory in the Commonwealth of Massachusetts.

2. RESPONSIBILITIES OF THE PARTIES

a) NET and MFSI agree to treat each other fairly, non-discriminatorily, and equally for all items included in this agreement, or related to the support of items included in this agreement.

Traditionally, link elements were composed of a 2-wire or, in certain instances a 4-wire, pair of copper wires running from the end office distribution frame to the customer premises; however, a link may be provided via other media, including as a channel on a high capacity feeder/distribution facility, which is in turn distributed from a node location to the customer premises via a copper or coax drop facility.

- b) MFSI and NET will work cooperatively to minimize fraud associated with 3rd-number billed calls, calling card calls, or any other services related to this agreement.
- c) NET will support MFSI requests related to central office (NXX) code administration and assignments in an effective and timely manner. MFSI and NET will comply with code administration requirements as prescribed by the Federal Communications Commission, the Massachusetts Department of Public Utilities, and accepted industry guidelines. MFSI and NET will compensate one another for the cost of activating each new NXX code, if so ordered by the Massachusetts Department of Public Utilities in Docket 94-185 or any other docket and compensation shall be retroactive to the effective date of this agreement.
- d) For network expansion, MFSI and NET will review engineering requirements on a quarterly basis and establish forecasts for trunk utilization. New trunk groups will be implemented as dictated by engineering requirements for both NET and MFSI. NET and MFSI are required to provide each other the proper call information (i.e. originated call party number and destination call party number, CIC, OZZ, etc.) to enable each company to bill accordingly.
- e) There will be no re-arrangement, reconfiguration, disconnect, or other non-recurring fees associated with the initial reconfiguration of each carrier's traffic exchange arrangements upon execution of this agreement, other than the cost of establishing a new co-location arrangement where one does not already exist.
- f) NET shall assess no cross-connect fee on MFSI where MFSI accesses a 911 or E911, reciprocal traffic exchange trunks, and network platform services, through a co-location arrangement at the NET wire center.

3. TERM

MFSI and NET agree to provide service to each other on the terms defined in this agreement for a period of two (2) years from the date of installation, as defined in section four (4) of this agreement or until standard arrangements are approved by the Massachusetts Department of Public Utilities, whichever occurs first. By mutual agreement, MFSI and NET may amend this agreement to extend the term of this agreement. If deemed necessary by either party or the Massachusetts Department of Public Utilities, for some or all of the arrangements described herein, MFSI and NET agree to file tariffs with the Massachusetts Department of Public Utilities and/or the Federal Communications Commission reflecting the terms of this agreement within 45 days of the execution of this agreement. In advance of any potential tariff requirements of either party, the terms and conditions contained in this agreement shall apply.

4. INSTALLATION

NET and MFSI shall effectuate all the terms and conditions covered in this agreement within 90 days from execution, and will move forward on the implementation and operation of the terms of this agreement in advance of any regulatory action which may or may not be required to implement any arrangements contained herein.

5. <u>NETWORK MAINTENANCE AND MANAGEMENT</u>

MFSI and NET will work cooperatively to install and maintain a reliable network. MFSI and NET will exchange appropriate information (e.g., maintenance contact numbers, network information, information required to comply with law enforcement and other security agencies of the

Government, etc.) to achieve this desired reliability. If it is determined and ordered in Docket 94-185 that the incumbent should be compensated for certain information, then MFSI agrees to compensate NET retroactively to the effective date of this agreement.

MFSI and NET will work cooperatively to apply sound network management principles by invoking network management controls to alleviate or to prevent congestion.

6. TERMINATION

Subsequent to the initial term of this Agreement, either party may cancel the service provided hereunder at any time upon 60 days written notice to the other party.

7. OPTION TO ELECT OTHER TERMS

If, at any time while this agreement is in effect, either of the parties to this agreement provides arrangements similar to those described herein to a third party on terms different from those available under this agreement (provided that the third party is authorized to provide local exchange services), then the other party to this agreement shall have the option to take service subject to the rates, terms, and conditions offered to the third party. This option may be exercised by delivering written notice to the other party. The party exercising its option under this paragraph must continue to provide services to the other party as required by this agreement, subject either to the rates, terms, and conditions of this agreement, whichever is more favorable to the other party.

8. <u>CANCELLATION CHARGES</u>

No cancellation charges apply if the term of the agreement is met, notwithstanding approval of a standard tariff. If the service is cancelled before the end of the term, cancellation charges will apply. These charges will include the work associated with the initial installation of the network and the work required to disconnect the network, calculated on a time and materials basis.

9. FORCE MAJEURE

Neither MFSI nor NET shall be liable for any delay or failure to perform under the terms of this agreement which failure or delay is due in whole or in part to a force majeure condition. "Force Majeure" means causes beyond a Party's reasonable control including, but not limited to, acts of God, labor disputes, regulatory action or inaction.

10. LIMITATION OF LIABILITY

in no event shall NET or MFSI be liable to each other in connection with the provision or use of their services for indirect, incidental, consequential, reliance or special damages, including (without limitation) damages for lost profits, regardless of the form of action, whether in contract, indemnity, warranty, strict liability, or tort, including (without limitation) negligence of any kind.

11. POLICY POSITIONS

The agreements herein are made without prejudice to the positions each party has previously advanced or may advance in the future in any regulatory or other public fora regarding the terms, conditions, structure, or rates.

12. BERVICE STANDARDS

NET and MFEI shall provide service to each other under the same service standards, including RR 4/44/9 intervals, as is provided to their outs outstances for pintler services.

THE SAME

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If this agreement is acceptable to MFSI and NET, both parties will sign in the space provided below. This agreement shall not bind MFSI and NET until executed by both parties.

Timothy T. Devine

Director Regulatory Atteirs

Position/Title
MFS Intelenet of Messachwarth, inc.

4-14-95 /AM 4/

J.J. GOLDBELG

Print Name

VICE PRESIDENT

Poelton/Title NYNEX

* TO BE DEVELOPED BY WET + MFS1

RA 4/14/23 TID 4114/95

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC UTILITY CONTROL ONE CENTRAL PARK PLAZA **NEW BRITAIN, CT 06051**

06-17

DOCKET NO. 95-06-1795- APPLICATION OF THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY FOR APPROVAL TO OFFER UNBUNDLED LOOPS, PORTS AND ASSOCIATED INTERCONNECTION ARRANGEMENTSAPPLICATION OF THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY FOR APPROVAL TO OFFER UNBUNDLED LOOPS, PORTS AND ASSOCIATED INTERCONNECTION ARRANGEMENTS

December 20, 1995

By the following Commissioners:

Reginald J. Smith Thomas M. Benedict Jack R. Goldberg

DRAFT DECISION

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I. INTRODUCTION

On July 1, 1994, Public Act 94-83, "An Act Implementing The Recommendations Of The Telecommunications Task Force" (the Public Act or Act), became Connecticut law. The Act is a broad strategic response to the changes facing the telecommunications industry in Connecticut. The technological underpinnings, the framework for a more participative, and ultimately more competitive, telecommunications market, and the role of regulation envisioned by the legislature are essential to the future realization and public benefit of an "Information Superhighway" in Connecticut.

At the core of the Public Act are the principles and goals articulated therein. Section 2 (a) of the Act provides in pertinent part:

Due to the following: affordable, high quality telecommunications services that meet the needs of individuals and businesses in the state are necessary and vital to the welfare and development of our society; the efficient provision of modern telecommunications services by multiple providers will promote economic development in the state; expanded employment opportunities for residents of the state in the provision of telecommunications services benefit the society and economy of the state; and advanced telecommunications services enhance the delivery of services by public and not-for-profit institutions, it is, therefore, the goal of the state to (1) ensure the universal availability and accessibility of high quality, affordable telecommunications services to all residents and businesses in the state. (2) promote the development of effective competition as a means of providing customers with the widest possible choice of services, (3) utilize forms of regulation commensurate with the level of competition in the relevant telecommunications service market. (4) facilitate the efficient development and deployment of an advanced telecommunications infrastructure, including open networks with maximum interoperability and interconnectivity. (5) encourage shared use of existing facilities and cooperative development of new facilities where legally possible, and technically and economically feasible, and (6) ensure that providers of telecommunications services in the state provide high quality customer service and high quality technical service.

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Conn. Gen. Stat. § 16-247a (a).

The central premise of the legislation is that broader participation in the Connecticut telecommunications market will be more beneficial to the public than will broader regulation. It is significant, however, that the Act does not chart a detailed plan for realization of its goals and compliance with its principles. Rather, the Act entrusts the Department of Public Utility Control (Department) with the responsibility of implementing both the letter and spirit of its important provisions; the Act thus endows the Department with broad powers and procedural latitude as it seeks to achieve the legislative goals through the facilitation of the development of competition for telecommunications services.

In light of the Public Act, the Department's efforts must facilitate market conditions and create regulatory conditions that will maximize the benefits of future competition for the user public of Connecticut. As articulated by the Department's Chairman, Reginald J. Smith, during the June 23, 1994 technical meeting in Docket No. 94-05-26, General Implementation of Public Act 94-83, the passage of Public Act 94-83 places the Department and the telecommunications industry at an unprecedented point in Connecticut regulatory history with an opportunity to define a markedly different future for Connecticut telecommunications. The Department, therefore, established a framework for the implementation of Public Act 94-83 that would allow it the opportunity to fully and publicly explore all the alternatives available to it under the terms and conditions of the legislation and establish therefrom appropriate regulatory mechanisms to effect the legislative intent that telecommunications services be regulated "in a manner designed to foster competition and protect the public interest." The implementation framework involves four phases: the initial conceptual infrastructure phase, the competition phase, the alternative regulation phase and the holding company affiliate phase.

The Conceptual Infrastructure Phase consisted of Docket No. 94-07-01, <u>The Vision For Connecticut's Telecommunications Infrastructure</u>, in which a Decision was issued on November 1, 1994. The Department initiated that docket in recognition of the fact that effective and efficient implementation of Public Act 94-83 required at the outset an investigation of the state's telecommunications infrastructure which is the foundation for the provision of all telecommunications services. In its Decision, therefore, the Department identified the attributes that will be required of any future infrastructure to achieve the Act's goals, articulated intended Department initiatives to facilitate the development of a future infrastructure that exhibits those identified attributes and identified issues to be more fully explored in subsequent implementation dockets.

To begin the Competition Phase, in July of 1994, the Department initiated eight highly focused, limited discovery dockets to address specific issues raised by the legislature's commitment to broader market participation in Connecticut: Docket No. 94-07-02, Development of the Assumptions, Tests, Analysis, and Review to Govern

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Telecommunications Service Reclassifications in Light of the 8 Criteria Set Forth in Section 6 of Public Act 94-83; Docket No. 94-07-03, DPUC Review of Procedures Regarding the Certification of Telecommunications Companies and of Procedures Regarding Requests by Certified Telecommunications Companies to Expand Authority Granted in Certificates of Public Convenience and Necessity; Docket No. 94-07-04, DPUC Investigation into the Competitive Provision of Local Exchange Service in Connecticut; Docket No. 94-07-05, DPUC Investigation into the Competitive Provision of Customer Owned Coin Operated Telephone Service in Connecticut; Docket No. 94-07-06, DPUC Investigation into the Competitive Provision of Alternative Operator Service in Connecticut; Docket No. 94-07-07, DPUC Investigation of Local Service Options, Including Basic Telecommunications Service Policy Issues and the Definition and Components of Basic Telecommunications Service; Docket No. 94-07-08, DPUC Exploration of Universal Service Policy Issues; and Docket No. 94-07-09, DPUC Exploration of the Lifeline Program Policy Issues. Those proceedings have been completed and Final Decisions issued.

Also integral to the achievement of effective competition as prescribed by Public Act 94-83 are dockets addressing the mandate of Conn. Gen. Stat. Section 16-247b to unbundle "the noncompetitive and emerging competitive functions of a telecommunications company's local telecommunications network that are used to provide telecommunications services and which . . . are reasonably capable of being tariffed and offered as separate services." Docket No. 94-10-02, <u>DPUC Investigation into the Unbundling of The Southern New England Telephone Company's Local Telecommunications Network</u> (Final Decision issued September 22, 1995)¹; Docket No. 94-11-03, <u>DPUC Investigation into the Unbundling of the New York Telephone Company's Local Telecommunications Network</u>; and Docket No. 94-11-06, <u>DPUC Investigation into the Unbundling of the Woodbury Telephone Company's Local Telecommunications Network</u> (the latter two dockets are currently in development stages).

In addition to those unbundling dockets, the Competition Phase will entail a companion investigation of selective participative architecture issues that will impact the achievement of competition as discussed by the Department in

At the participants' request, the Department separated from Docket No. 94-10-02 the issue of mutual compensation between SNET and wireless carriers. That issue was considered in Docket No. 95-04-04, <u>DPUC Investigation into Wireless Mutual Compensation Plans</u>, in which a Final Decision was issued on September 22, 1995.

Docket No. 94-07-01 and which emerge in consequence of the unbundling dockets. A docket for that investigation has been opened, Docket No. 94-10-04, <u>DPUC Investigation into Participative Architecture Issues</u>. The Department will also sponsor an examination of quality of service standards compelled by changes in provider responsibilities in a participative market such as that envisioned by Public Act 94-83.

The instant docket arose in consequence of the Department's Decision in Docket No. 94-10-02 regarding the unbundling of the Southern New England Telephone Company's (SNET's) local telecommunications network as well as in response to other implementation dockets wherein the Department issued Decisions concerning resale of the SNET local network. (The relevant Decisions are detailed in Section III, below.) Specifically, the instant docket was opened upon a filing by SNET seeking approval to offer unbundled loops and ports and a wholesale local basic service and certain related features at proposed tariffed rates. SNET's filing also proposed a Universal Service Fund. As described in more detail below, in the instant docket, the Department must determine the appropriate rate SNET will charge Certified Local Exchange Carriers (CLECs) for unbundled loops and ports and for wholesale local basic service and certain related features as well as determine whether a Universal Service Fund is necessary at this time.

Relevant to both the Competition Phase and the Alternative Regulation Phase, which are being conducted concurrently, the Department initiated individual investigations of each of the state's incumbent telephone companies' (local exchange carriers (LECs)) costs of providing telecommunications services for the purpose of constructing a financial and procedural framework for use by the Department in evaluating the telephone companies' future unbundling and pricing initiatives such as the tariff filing in the instant proceeding. Docket No. 94-10-01, DPUC Investigation into The Southern New England Telephone Company's Cost of Providing Service (Final Decision issued on June 15, 1995); Docket No. 94-11-02, DPUC Investigation into the New York Telephone Company's Cost of Providing Service; and Docket No. 94-11-05, DPUC Investigation into the Woodbury Telephone Company's Cost of Providing Service (the latter two dockets are currently in development stages).

With similar intent, the Department initiated individual companion dockets to review each local exchange carrier's depreciation policies and practices: Docket No. 94-10-03, DPUC Investigation into The Southern New England Telephone Company's Intrastate Depreciation Rates (Final Decision issued on November 21, 1995); Docket No. 94-11-04, DPUC Investigation into The New York Telephone Company's Intrastate Depreciation

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Rates; and Docket No. 94-11-07, <u>DPUC Investigation into The Woodbury Telephone Company's Intrastate Depreciation Rates</u> (the latter two dockets are currently in development stages). The detailed financial reviews are essential to full and fair examination of the impact upon competition of any alternative regulatory framework or treatment of the local exchange carrier community by this Department in the future. Findings, conclusions and recommendations of this Department developed in the context of these proceedings will serve as a foundation in future proceedings wherein the Department will consider specific requests filed by the incumbent telephone companies for increased discretionary authority and reduced regulatory participation in the telecommunications services business. SNET has filed such a request for alternative regulation with this Department, which request is currently under review and consideration in Docket No. 95-03-01, <u>Application of The Southern New England Telephone Company for Financial Review and Proposed Framework for Alternative Regulation</u>.

Finally, the Department has initiated Docket No. 94-10-05, <u>DPUC Investigation of The Southern New England Telephone Company Affiliate Matters Associated with the Implementation of Public Act 94-83</u>. In this proceeding, the Department will examine the financial, structural and operational impact of broader competition and any increased discretionary authority that may be provided SNET. Although the docket is currently open, the Department has deferred active investigation of holding company structure and affiliate relationships to a point closer to the end of the implementation period, thereby permitting construction of a better set of preliminary policies to guide the Department's investigation.

Public Act 94-83 presents a significant challenge to a number of regulatory principles that historically have guided Department decisions. The earlier statutory authority specifically focused on maximizing the public benefit by authorizing only a single telecommunications service provider for any given market. The Department, therefore, was able to direct the attention solely at regulating the conduct of a single dominant corporation against a desired public standard of affordable and available telephone service. Under provisions of Public Act 94-83, the Department faces an unprecedented task of managing the introduction of broader participation into a heretofore single-provider market without unduly risking the availability, accessibility and affordability of basic telecommunications services to all prospective Connecticut users. The Department intentionally designed its implementation process to chart an orderly transition to effective competition such that the full scope and scale of benefits envisioned by the Connecticut legislature in enacting Public Act 94-83 may be realized. The Department's implementation decisions to date have consistently reflected its stated commitment to

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establishing a regulatory framework that affords fair competition among incumbent providers and new competitors while protecting the interests of the Connecticut public.

II. PARTIES AND INTERVENORS

The Department recognized as parties in this proceeding: the Southern New England Telephone Company (SNET), 227 Church Street, New Haven, Connecticut 06510; the Office of Consumer Counsel (OCC), 136 Main Street, Suite 501, New Britain, Connecticut 06051; MFS Intelenet, Inc. (MFSI), 6 Century Drive, Suite 300, Parsippany, NJ 07054; Cablevision Lightpath, Inc., (Cablevision), 111 New South Road, Hicksville, New York 11801; and Frontier Communications (Frontier), 29 Church Street, P.O. Box 967, Burlington, VT 05402-0967. Separately, Brooks Fiber Communications (Broöks), Connecticut Ad Hoc Telecommunications Users Group (Ad Hoc), AT&T Communications of New England, Inc. (AT&T), MCI Telecommunications Corp. (MCI), MFS Telecom, Inc. (MFS), New England Cable Television Association, Inc. (NECTA), Sprint Communications Company L.P. (Sprint), Teleport Communications Group (TCG), WilTel, Inc. (WilTel), and Message Center Beepers, Inc. (Message Center) requested and were granted intervenor status.

III. DOCKET SCOPE AND PROCEDURE

A. PROCEDURAL CONTEXT

As detailed above, Public Act 94-83 articulates as a goal of the state the "efficient development and deployment of an advanced telecommunications infrastructure, including open networks with maximum interoperability and interconnectivity" and further encourages the "shared use of existing facilities and cooperative development of new facilities where legally possible, and technically and economically feasible." Conn. Gen. Stat. § 16-247a (a). In Docket No. 94-07-01, the Department observed that "the telecommunications infrastructure will play a dominant role in the success or failure of the development of effective competition in Connecticut's telecommunications markets and will thus greatly determine the public benefit to be derived from Public Act 94-83." Decision, Docket No. 94-07-01, November 1, 1995, p. 33. For that reason the Department stated its commitment in future Public Act 94-83 implementation proceedings to "facilitate the development of independent networks, physically interconnected, functionally integrated and technically interpositioned with those of [the incumbent telephone companies]." Id., p. 29 Further provisions of Public Act 94-83 and subsequent directives of this Department in its implementation proceedings require SNET to provide prospective competitors reasonable nondiscriminatory access to all equipment, facilities and services necessary to provide

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telecommunications services to customers at rates approved by the Department. Conn. Gen. Stat. § 16-247b (b). To that end, the Department established procedural and operational guidelines in Docket No. 94-10-02 to facilitate physical interconnection of switching, transmission and distribution systems of incumbent telephone companies, interexchange carriers and prospective local services market entrants.

In the course of these initiatives, the Department concluded that the development of effective competition in Connecticut's telecommunications markets will, in part, necessitate making available the network of the incumbent local exchange carriers (LECs) to prospective competitors for repackaging and resale. For purposes of this proceeding, the term "resale" will be used generically to refer to the act of a CLEC purchasing or leasing services and/or unbundled network elements from an incumbent LEC for the purpose of repackaging, rebranding or reselling such services or elements to prospective customers in direct competition with the incumbent LEC. The Department has stated in previous Decisions that "resale is consistent with the Act's encouragement of shared use of existing facilities and its mandates for unbundling." Decision, Docket No. 94-07-01, November 1. 1994, p. 29. Moreover, the Department has found that "[I]ocal service competition will be facilitated by the removal of any and all restrictions on the resale of telephone company local service offerings by authorized service providers in Connecticut." Decision, Docket No. 94-07-04, March 16, 1995, p. 20. As the Department emphasized: "Full resale authority of telephone company local service offerings would serve to meet the immediate needs of prospective entrants for physical plant without capital investment as well as ensure that existing plant infrastructure is not left immediately stranded by the entrance of competitive alternatives." Id. Accordingly, the Department pronounced that "resale tariff offerings for noncompetitive and emerging competitive residential and business offerings shall be required by the Department of the telephone companies" as one element of its efforts to realize greater public benefit under the statutory umbrella of Public Act 94-83 than had been possible under previous law. Id.

In Docket No. 94-07-03, the Department continued its efforts to refine its resale policy and reaffirm its views of the relative importance of suitable resale offerings to the development of effective competition in Connecticut. In its Decision in that docket, the Department set forth a requirement that "any applicant receiving authority to operate as a telecommunications services provider in Connecticut will be obligated to serve any and all consumers seeking service from the provider in its authorized area(s) of operation." Decision, Docket No. 94-07-03, March 15, 1995, p. 26. The Department stated that "[s]uch a requirement can be satisfied with owned facilities, resold facilities or a mix of both." Id.

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The Department returned to the subject of competition and resale again in Docket No. 94-07-07 requiring "each provider of local service to provide basic telecommunications services (either employing its own network or as a resale offering) within the geographic area for which the local service provider is certified." Decision, Docket No. 94-07-07, February 28, 1995, p. 18. In that same Docket, the Department imposed a corresponding requirement on LECs to make available their networks to prospective providers in acknowledgment "that this requirement may only be fulfilled if telephone companies offer the defined functions of basic service on a tariffed wholesale basis for resale." Id., pp. 18-19.

From this set of Decisions, it is evident that the Department's efforts to introduce resale to the Connecticut market are characterized by progressively greater definition and detail. It is in the context of these specific requirements imposed upon SNET by previous Department Decisions and provisions of Public Act 94-83 that on June 15, 1995, SNET filed an application (June 15, 1995 Application) with the Department for approval to offer unbundled loops, ports and associated interconnection arrangements for resale by competitors in Connecticut. (A description of those proposed unbundled services is provided in Section IV. A., below.) SNET's filing was made pursuant to Connecticut General Statutes (Conn. Gen. Stat.) § 16-247(b)² and § 16-1-59A of the Regulations of Connecticut State Agencies.³ On July 5, 1995, SNET separately submitted to the Department a request for approval of a wholesale local basic service offering, certain related features and a Universal Service Fund considered by SNET to be essential to

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Conn. Gen. Stat. § 16-247b (a) provides: "On petition or its own motion, the department shall initiate a proceeding to unbundle the noncompetitive and emerging competitive functions of a telecommunications company's local telecommunications network that are used to provide telecommunications services and which the department determines, after notice and hearing, are reasonably capable of being tariffed and offered as separate services. Such unbundled functions shall be offered under tariff at rates, terms and conditions that do not unreasonably discriminate among actual and potential users and actual and potential providers of such local network services." SNET's filing details the proposed rates, terms and conditions of its tariff.

Section 16-1-59A of the Regulations of Connecticut State Agencies governs tariff filings for noncompetitive telecommunications services.

mitigating any negative effects of transitioning to a multi-provider marketplace. (A description of the proposals is provided in Section IV. A., below.) At SNET's request the Department consolidated the July 5, 1995 filing and the June 15, 1995 Application in the instant docket in the interests of expeditious review and introduction of competition to Connecticut. The Department subsequently suspended the proposed effective dates of the tariffs in accordance with § 16-1-59A of the Regulations of Connecticut State Agencies to permit full and fair examination of SNET's proposal prior to any Department action.

Pursuant to a Notice for Written Comments and Pre-Hearing Conference, interested persons were given the opportunity to file with the Department written comments regarding SNET's June 15, 1995 and July 5, 1995 filings⁴. A technical meeting was held in the offices of the Department, One Central Park Plaza, New Britain, Connecticut 06051, on July 27, 1995, at which time the Department was notified by SNET that the filing available to the Department at that time for review and consideration was not complete. SNET filed further information on September 8, 1995, establishing that date as the effective date of the combined tariff filings, effectively replacing the June 15, 1995 and July 5, 1995 filing dates.

By Notice of Hearing dated August 30, 1995, a public hearing was conducted on September 29, 1995, October 5, 1995, October 6, 1995, October 13, 1995, October 16, 1995, and October 18, 1995 in the offices of the Department. That hearing was continued to October 26, 1995 and again to October 29, 1995, at which time it was closed.

At the commencement of the public hearing, the Department stated that the principal purpose of this proceeding is twofold: to tariff (for use by facilities-based providers) a set of unbundled network components as prescribed by Conn. Gen. Stat. § 16-247b; and to tariff (for use by facilities-based and nonfacilities-based competitors) a wholesale local service offering equivalent to that offered by SNET on a retail basis as prescribed by the Department's previous Decisions. To that end, the Department set forth the principal issues to be investigated in this proceeding:

The costing methodology used by SNET in light of the Department's Decisions in Docket Nos. 94-10-01, DPUC Investigation into The Southern New England Telephone Company's Cost of Providing Service, and 95-03-10, Application of The Southern New England

Written comments were received from AT&T Communications of New England, Inc. (AT&T), Cablevision Lightpath, Inc. (Lightpath); MCI Telecommunications Corporation (MCI); MFS Intelenet of Connecticut, Inc. (MFSI); New England Cable Television Association, Inc., (NECTA); Office of Consumer Counsel (OCC); Sprint Communications Company L.P. (Sprint); and Teleport Communications Group (TCG).

<u>Telephone Company for Approval to Conduct a Dial Tone Transport and Switching Market Trial.</u>

- The level of contribution to common overhead proposed by SNET in the proposed tariff rates.
- The application of the rate to resellers and facilities-based providers.
- The prospective effect of the rate on the development of competition.
- The need for and impact of a proposed supplemental Universal Service Fund.

Remarks of Chairman Reginald J. Smith, Transcript, September 29, 1995, pp. 42-43.

The Department issued a draft Decision in this docket on December 8, 1995. Pursuant to Notice, all parties and intervenors were provided opportunity to file written exceptions and to present oral arguments on the draft Decision.

B. CONCEPTUAL FRAMEWORK

This proceeding involves an investigation by this Department of the first of a series of tariff filings necessary to efficiently transform the principles embodied in Public Act 94-83 into a cohesive regulatory framework. The instant docket, therefore, provides an essential foundation for subsequent tariff filings by SNET.⁵ The Department undertakes this investigation with the objective of ensuring the availability and affordability of services, features and network elements of SNET's local telecommunications infrastructure considered needed, necessary and/or useful by prospective providers to the provision of certain telecommunications services in competition with SNET. As the legislature mandated in Public Act 94-83, the goal of the Department's efforts is to ensure that the Connecticut public has greater choice of telecommunications products, prices and providers.

In this proceeding, SNET presents proposed rates and charges for unbundled services, features and an equivalent wholesale basic local service offering. Other participants in this proceeding universally challenge SNET's claim that

Since initiation of this proceeding, SNET has filed another tariff proposal regarding additional network services and network service elements that must be unbundled and separately tariffed pursuant to the Department's Decision in Docket No. 94-10-02. The Department has formally initiated Docket No. 95-11-08, <u>Application of The Southern New England Telephone Company for Approval to Offer Interconnection Services and Other Related Items Associated with the Company's Local Exchange Access Service Tariff, to investigate that filing.</u>

its proposed rates and charges are fair and reasonable, and have asked the Department to reduce those rates and charges in order to foster the development of competition in the telecommunications markets. This proceeding has involved extensive submissions by participants and exhaustive review by the Department in an effort to ensure fair and equitable treatment of the issues of unbundling and resale. It is uncontroverted that this Decision will have enormous effect upon the transformation of Connecticut into the multi-provider market envisioned by the legislature with passage of Public Act 94-83. As the Department noted in its Final Decision in Docket No. 94-07-01, The Vision for Connecticut's Telecommunications infrastructure, the experience of the interexchange carrier services market segments suggests the existence of a strong causal relationship between the price charged by telephone companies for services considered by would-be competitors to be essential to the emergence of broader participation in the provision of telecommunications services. Decision, November 1, 1994, p. 14.

As will be evidenced throughout the summaries of the participants' positions in the following section, three issues must be addressed in this Decision: costs, contribution and competitive consequence. None of the three issues is a new topic of interest before to the Department. To the contrary, they have each been examined extensively in prior regulatory proceedings and the Department has developed certain positions that provide a partial foundation for the Department's efforts in this proceeding. A brief narrative of the history of the Department's Decisions on the relevant issues is thus necessary.

The subject of costs was examined in great detail in Docket No. 88-03-31, <u>Department of Public Utility Control Investigation into the Costs of Providing Intrastate Telecommunications Services by the Southern New England Telephone Company, where the Department ordered SNET to construct its future cost representations to the Department using Long Run Incremental Cost (LRIC) and Fully Distributed Cost (FDC) techniques. The two methodologies each measure costs associated with any particular service, albeit distinctly different types of costs depending upon the methodology employed. LRIC methods are generally considered a prospective methodology because they measure the level of incremental cost to be incurred in consequence of producing an additional unit of any service. Thus, LRIC methodologies provide the user a means to determine the additional cost incurred by a provider to meet any future demand for a service. In contrast, FDC methods tend to exhibit retrospective attributes, distributing the total costs incurred by a company in providing a service over the total units of production or demand to develop an average unit cost.</u>

Recently, in Docket No. 94-10-01, <u>DPUC Investigation into The Southern New England Telephone Company's Cost of Providing Service</u>, the Department expressed its

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preference, in light of Public Act 94-83, for the Total Service Long Run Incremental Cost (TSLRIC) methodology over both LRIC and FDC methodologies whenever possible in the belief that TSLRIC better demonstrates the relative impact of technological progress and competitive proficiency on current financial commitments of the sponsor. The TSLRIC methodology represents a modification of the LRIC approach by utilizing total demand for a service as the base for calculating the incremental cost of addition, replacement or enhancement to the service. This produces a forward-looking cost similar to the LRIC methodology, but reduces some of the economic distortions that might otherwise emerge using a narrower base of analysis.

TSLRIC, however, does not capture some costs incurred by the provider in the conduct of making available a particular service, which costs are otherwise reflected in FDC methodologies and for which the provider is entitled to be compensated. These costs are generally referred to as common costs or shared costs and are not sufficiently distinguishable to be incorporated into a TSLRIC study. In FDC studies, such costs would be included at the aggregate cost level and apportioned over each unit of service. Thus, recovery of those costs would be the shared responsibility of users of the associated service.

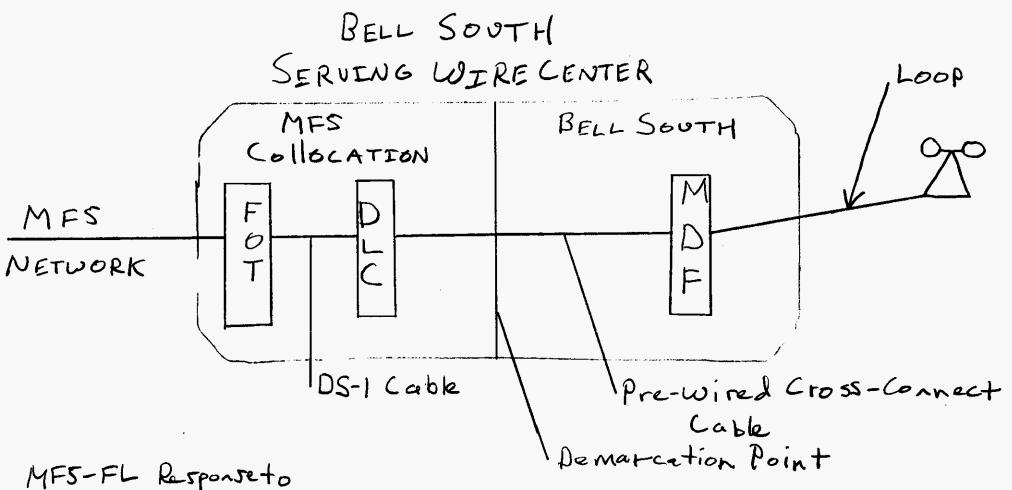
The Department has previously concluded that telephone companies are rightfully entitled to recover prudent common costs in the course of designing rates for their services. Given the fact that TSLRIC methodologies make no provision for the incorporation of such costs into their analysis framework, the cost thresholds generated by TSLRIC do not represent a fair and reasonable price for the service. The Department has recognized that fact and has thus endorsed the principle of contribution as a means to satisfy some of those common or shared costs incurred in the provision of the respective service. See Decision, Docket No. 94-10-01, June 15, 1995, p. 27. Contribution represents nothing more than a monetary increment above the TSLRIC cost reflected in the margin for any given service. The amount of contribution approved through any given tariff should theoretically be sufficient to reduce the pool of unrecovered costs associated with the service over some period of time. Contribution, therefore, provides a pool of funds that will offset in part, if not in total, common costs not included in the TSLRIC.

In summary, in Docket No. 94-10-01 the Department reaffirmed many of the cost principles adopted in earlier proceedings as the continued policy of the Department under Public Act 94-83, and, where appropriate, refined policies to recognize the changes

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DIGITAL LOOP CARRIER AT COLLOCATION SITE CONNECTED to DW OF YW 'ANALOG OF DIGITAL ISDN GRADE LOOP



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MFS-FL Response to Statl 15t Set Item # 8, LEGEND OF TERMS

DLC = Digital Loop Carrier

FOT = Fiber Optic Terminal

MDF = Main Distribution France

LOOP = Unbundled Dial-tone Line

PORT = Unbundled Dial-tone Port

2W = 2 Wire

4W = 4 Wire

DSX = DS-1 Digital Signal Cross-Connect

DEMARCATION POINT = Dividing line between Bell and MFS Service

COLLOCATION SITE = Site where MFS hat its own dedicated equipment

2 = Telephone Set or Private Brach Exchange

X

X

X

introduced by the Public Act. The following lists those principles that guide the Department's instant investigation and Decision:

- costs submitted to the Department for consideration must be real (or reasonable estimates) and must specifically relate to the services in question (Decision, Docket No. 92-09-19, July 7, 1993, p.139; Decision, Docket No. 89-12-05, June 28, 1991, pp. 9 and 10; Docket, Docket No. 88-03-31, August 8, 1990, p. 15)
- cost methodologies must employ principles of cost causation that are consistent with prior Department Decisions and practices (Decision, Docket No. 94-10-01, pg. 26)
- cost methodologies must be forward looking (Decision, Docket No. 88-03-31, August 8, 1990, III.A.1)
- cost methodologies must distinguish among costs incurred on behalf of monopoly, emerging competitive and competitive services (<u>Id</u>.)
- cost methodologies must provide an accurate means of measuring incremental cost for services (Decision, Docket No. 89-12-05, June 28, 1991, V.4)
- cost methodologies must recognize the effect of broader market participation on the goals of establishing equitable and reasonable rates (<u>Id.</u>, IV.4)
- cost methodologies must provide consideration to both Fully Distributed Costs (FDC) and Long-Run Incremental Costs (LRIC) (Id.)
- cost methodologies must promote economic efficiency (i.e., should maximize the utilization of existing resources) (Decision, Docket No. 88-03-31, August 8, 1990, III.B)
- cost methodologies must preclude any remaining monopoly services from being allocated costs otherwise properly attributable to competitive services (<u>Id</u>.)
- cost methodologies must allow the burden of common costs, such as general overhead, to be shared fairly by all users (<u>Id</u>.)
- cost methodologies must not pose an undue administrative and financial burden on the company required to perform it (<u>Id</u>.)

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- cost submissions provided by the participants to the Department are only guides to the establishment of cost thresholds (Decision, Docket No. 94-10-01, June 15, 1995, pg. 27)
- Total Service Long Run Incremental Cost (TSLRIC) is a cost methodology that is consistent with Departmental principles introduced in Docket No. 88-03-31, Docket No. 89-12-05, Docket No. 91-10-06 and Docket No. 92-09-19 and warrant use in future submissions of costs (Decision, Docket No. 94-10-01, June 15, 1995, pg. 27 and 28)
- For purposes of establishing price, it is essential to provide some level of contribution above incremental cost to recover all investment costs and associated expenses for a particular service (Decision, Docket No. 94-10-01, June 15, 1995, pg. 28)

The collective product of the Department's past efforts has been the construction of a conceptual framework for this proceeding that requires a determination of the lowest possible cost threshold using TSLRIC as the basis for any such calculation, acceptance of the principle that some contribution above that cost threshold will be necessary to cover costs not captured by the TSLRIC methodology and recognition that the price set in this proceeding will impact upon the development of future competition.

IV. PARTICIPANTS' POSITIONS

The following sections provide first a detailed summary of SNET's proposals and its justification therefor and second a summary of the views of the other docket participants regarding those proposals. Such discussion, although lengthy, is necessary to provide the context for the Department's discussion in this Decision.

A. THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY (SNET)

1. Unbundled Services

a. Description

On June 15, 1995, SNET requested the Department's approval to offer the following unbundled services for resale by certified providers of telecommunications services: three types of outside plant facilities (Unbundled Loops) - Voice

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Grade, ISDN and DS1; four types of central office facilities (Unbundled Ports) — Voice Grade, ISDN, Direct Inward Dial (DID) analog trunk side and DS1-DID trunk side; and multiplexing and interwire center transport for the interconnection of the loop and port offerings to a CLEC's infrastructure.

Unbundled Loops

For purposes of this proceeding, SNET considers an unbundled loop as simply a transmission path between an end user location and a cross connect location in a designated SNET serving wire center. SNET contends that unbundled loops such as those proposed in this proceeding will meet the facility need of any CLEC that has positioned a central office switch somewhere within the geographic perimeter of SNET's network but lacks the local facilities necessary to reach a prospective customer in Connecticut.

SNET further asserts that the family of unbundled loop offerings is sufficiently diverse to meet the needs of almost any type of end user application currently supported by telecommunications networks. SNET maintains that voice grade loops support any voice grade service within accepted transmission parameters, including residential and business basic exchange and potentially some low speed data transmission applications. SNET further contends that the proposed ISDN loop offering conforms to standard ISDN architecture requirements and supports ISDN basic service — specifically, providing two bearer channels and one data channel (2B+D). SNET further states that under the terms and conditions of its tariff, a CLEC can use the unbundled ISDN loop offering to provide an ISDN service to an end user without placing restrictions on that end user. With regard to the unbundled DS1 loop offering. SNET proposes to offer facilities that support up to twenty-four individual voice grade channels or a combination of voice grade and ISDN channels in a common facility. SNET further proposes to permit a CLEC to use an unbundled DS1 loop to bundle the individual communications requirements of a number of customers when multiple facilities are required by a provider to serve a particular location. Wimer June 15, 1995 Testimony, pp. 5 - 6.

Unbundled Ports

SNET explains that the unbundled port offerings proposed in this proceeding are to be utilized to interconnect independently-owned outside plant facilities of CLECs (CLEC loops) with the switching capability of SNET. SNET maintains that its proposed complement of unbundled ports will permit CLECs the switching capability to offer a broad range of telecommunications services to their customers without any significant central office switching investment. According to SNET, unbundled voice grade ports provide the necessary technical interfaces and functional equivalence to support business and/or residential telecommunications services. Separately, an unbundled ISDN port offers the requisite functional equivalence to support ISDN-type services, including matrix switching support for ISDN voice and data traffic, electronic key service (i.e. the ability to effectively manage simultaneous demand for telecommunications services to a common point of origin and/or termination), and matrix switching requirements of packet data applications envisioned by many providers and end users in the near future. Finally, according to SNET, analog Direct Inward Dialing (DID) and DSI-DID trunk side ports proposed in this proceeding will support standard signaling nomenclatures required to interact with FCC conforming customer premise equipment such as private branch exchange equipment. SNET maintains that similar to unbundled loops, the use of unbundled ports is defined by technical parameters of the

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port, not by the type of end user. Therefore, a provider would not experience any functional limitations on the type of end user applications these facilities will support. Wimer June 15, 1995 Testimony, pp. 6 and 7.

Multiplexing and Interwire Center Transport

For purposes of this proceeding, SNET defines multiplexing to be a network activity that permits a service provider to combine several narrow band channels into a single broader band channel and to later disassemble that broader band channel into its original set of narrow band channels. SNET states that the most widely used application of multiplexing capability is the aggregation of voice grade, ISDN, and DSØ multiplexed to create a DS1 facility, and a series of DS1 facilities further multiplexed to create a DS3 facility. According to SNET, multiplexing is both functionally and economically attractive to prospective users because of its inherent ability to conserve space in a co-located central office where both space and cost are crucial considerations to a CLEC.

SNET defines interwire center transport services as those network elements that, when combined, provide a dedicated transmission path between two independent wire centers, one or both of which belong to a CLEC. SNET proposes that interwire center transport services be used by CLECs to transfer traffic between elements of their own network or to interconnect with SNET's unbundled loop and port services, either together or separately. Additionally, according to SNET, an interwire center transport service can be employed to bring a loop or port from a distant SNET wire center to a CLEC's location. Wimer June 15, 1995 Testimony, pp. 7 - 8.

b. SNET's Proposed Unbundled Services and

Public Act 94-83

SNET maintains that its unbundled services proposal is consistent with the spirit and mandates of Public Act 94-83. First, SNET contends that its proposals regarding unbundled service elements further the Act's goal of "encourag[ing] shared use of existing facilities." Conn. Gen. Stat. § 16-247a (a) (5). Second, SNET states that its proposals are consistent with Conn. Gen. Stat. § 16-247b (a) which requires the unbundling of the noncompetitive and emerging competitive functions of SNET's local telecommunications network which are reasonably capable of being tariffed and offered as separate services. Third, SNET contends that its proposals approach the provision of unbundled services in a nondiscriminatory manner as required by Conn. Gen. Stat. § 16-247b. According to SNET, it has no interest in imposing artificial restrictions on the application of any unbundled service proposed in this proceeding and agrees with many of the participants in this proceeding that CLECs should not be required to disclose retail business intentions to SNET as a condition of using the proposed services. It is for this reason, explains SNET, that it proposes that unbundled services be exempted from any designation as business or residential services and further that no restrictions be placed on the application of the services. Wimer June 15, 1995 Testimony, pp. 2-3.

According to SNET's testimony in this proceeding, all of the proposed unbundled service offerings are purposefully designed to accord a prospective purchaser sufficient discretionary capability to repackage the service elements into meaningful competitive offerings. For example, as explained above, SNET states that its proposed unbundled loop services will meet the needs of CLECs that have central office equivalent switching capability in their respective

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infrastructures, but do not have sufficient outside plant facilities to support their marketing initiatives in Connecticut. Similarly, SNET sees its proposed unbundled port services as providing CLECs with the matrix switching capability necessary to support a body of telecommunications services to end users who have loop facilities, but no central office equivalent switching capability. Lastly, SNET explains that its proposed interconnection arrangements for unbundled services, which include multiplexing and interwire center transport, will provide CLECs the ability, at their option, either separately or together, to connect between SNET's unbundled loop and port service and a CLEC's co-located space. SNET's Brief, pp. 5-7.

In SNET's view, the range of options afforded by its proposals in this proceeding will allow a CLEC to purchase only the network functions it requires to meet its needs at the time that such needs become known. No long-term contractual obligations on the part of any CLEC will be required; no geographic forecasts by CLECs will need to be made to SNET. SNET maintains that under the terms and conditions of its proposal, a CLEC will be provided more than sufficient latitude in the design and construction of its own network while still being able to enter the local exchange market over significant geographic areas and meet its service obligations. With adoption of its proposed set of offerings, explains SNET, construction of a ubiquitous network will not be a prerequisite to providing service in Connecticut. According to SNET, competition will thus develop more quickly and benefit end users who will have available a broader selection of services and providers.

c. Proposed Rates

SNET proposes that the rate structures for unbundled service offerings consider in their design all specific SNET costs incurred for each particular service. For example, SNET proposes that unbundled loops be priced at a monthly rate with some variance in that rate according to the geographic area in which it will be required. To that end, SNET proposes the use of four geographic groupings wherein, according to SNET, the differences in rates will reflect differences in underlying costs of providing unbundled loops in the respective areas. Specifically, SNET proposes that comparably situated wire centers be grouped into four types: Metro, Urban, Suburban and Rural. In a similar fashion. SNET proposes that unbundled ports carry a monthly charge for access to SNET's infrastructure plus a variable per minute of use charge for local calls. For purposes of pricing in this proceeding, SNET defines local calls as those calls that originate and terminate within existing SNET exchange calling areas. SNET has made no geographic distinction by density for ports and indicates that its costs are primarily influenced by the level of local usage evidenced on its network. Additionally, SNET proposes that a monthly charge be applied for multiplexing support and a per mile charge be applied for interwire center transport. SNET states that its proposed multiplexing and interwire center transport rates are the same as those applied to current users in SNET's State Access Tariff for dedicated access, where appropriate. According to SNET, its proposed rate structures reflect underlying costs and will thus provide all prospective competitions a level playing field and drive the market toward effective competition. Wimer June 15, 1995 Testimony, pp. 8 and 10.

In support of its proposed rates, SNET performed a cost of service study, which, according to SNET, was conducted pursuant to the Department's June 15, 1995 Decision in Docket No. 95-10-01, <u>DPUC Investigation into The Southern New England Telephone Company's Cost of Providing Service</u>. SNET states that 100% of the cost of the local loop and 100% of the revenue from the local loop are included in the cost study for purposes of comparing costs and contribution. SNET further

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states that in its cost study, revenues generated from unbundled loops represent a combination of both revenues generated by the proposed rates and the requisite federally mandated Subscriber Line Charge (SLC) collected by SNET from every loop user to support the cost of providing that loop. SNET explains that the SLC is currently charged separate from any SNET service and applied directly to the bill of an end user; however, SNET intends to request a waiver from the Federal Communications Commission (FCC) to charge the CLECs the SLC, because the end user will no longer be SNET's customer under a resale scenario. SNET, therefore, proposes a single line SLC and commits that, should the FCC order SNET to charge more than the amount proposed in this proceeding, it will adjust the state rates accordingly. Wimer June 15, 1995 Testimony, pp. 10 - 11.

SNET explains that its proposed rates for unbundled services are priced above TSLRIC. SNET further explains that; because these services are critical elements for the provision of local service, the proposed rates provide minimal contribution toward overhead costs. According to SNET, some margin is necessary on all its products and services or it cannot sustain its business. Wimer June 15, 1995 Testimony, p. 11.

SNET proposes that the proposed rates for unbundled services employ a flexible rate range due to the uncertainty of the market and evolving Departmental requirements associated with the provision of these services. SNET states that while it has been working with potential market entrants for the past fourteen months, overall information regarding how, when and where potential competitors will enter the market remains unclear. SNET contends that, while it has used information derived over the past fourteen months to forecast competitors' entry needs, the entire market is dynamic and unknown even to the CLECs who will be purchasing the services. SNET, therefore, argues that the incurred costs to SNET of providing unbundled services could ultimately be either higher or lower than that assumed in the instant filing. Moreover, SNET posits that the actual equipment required to make available unbundled loops and ports to the CLECs may prove to be substantially different than what SNET and the CLECs have assumed for purposes of this proceeding. In particular, explains SNET, additional costs may be incurred by SNET and the CLECs if other equipment is needed in the provision of local service than that s envisioned in its studies. Conversely, SNET argues that if CLECs absorb more of the maintenance/repair responsibility associated with the interconnected networks, the costs could be lower than estimated in the analysis. Finally, SNET states that final rates may have to change to comply with any decision by the FCC regarding the appropriateness of charging an SLC and carrier common line (CCL) charge to the CLECs. Based on those uncertainties, SNET proposes to introduce flexible rates to account for any difference

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between the projected and actual demand and for any minor cost discrepancies. Wimer June 15, 1995 Testimony, pp. 11 and 12.

2. Wholesale Local Basic Service

a. Description

On July 5, 1995, SNET requested the Department's approval to make available for resale as a noncompetitive service Wholesale Local Service - Basic (WLSB) and certain associated network feature enhancements. According to SNET, the proposed WLSB offering includes the capabilities and functions of basic telecommunications service, as defined by the Department in its February 28, 1995 Decision in Docket No. 94-07-07, DPUC Investigation of Local Service Options. Including Basic Telecommunications Service Policy Issues and the Definition and Components of Basic Telecommunications Service, with added access to SNET-provided operator services and E-911 capability. SNET further commits that its WLSB will be offered in a nondiscriminatory manner to any prospective provider. Specifically, SNET proposes not to impose artificial restrictions on the use of the service and will not require CLECs to disclose their retail business intentions as a prerequisite to purchasing the service with the intent of reselling it. Further, according to SNET, the use of the WLSB service is defined only by the service's technical specifications, not by the end user application; therefore, SNET does not propose a business or residential designation be imposed upon the service. Only services concerning listings in the white and yellow page directories will be categorized by the nature of the end user.

Contingent on approval of its WLSB tariff, SNET proposes regulations under which directory listings will be provided on behalf of CLECs in SNET directories, regulations regarding non-published and non-listed services to be made available to CLEC customers, and the monthly recurring and nonrecurring charges associated with each of these services. Additionally, SNET states that pursuant to the Department's September 22, 1995 Decision in Docket No. 94-10-02, <u>DPUC Investigation into the Unbundling of the Southern New England Telephone Company's Local Telecommunications Network</u>, it will: distribute directories to CLEC end users; distribute a reasonable supply of books to the CLECs; and recycle books for CLEC end users. SNET notes that there will be no discriminatory treatment of CLEC customers as compared to SNET retail customers, because the CLECs' end users will have the same rights to directory distribution, listing options and non-list/non-

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publish functions, and enhanced business and residential listings as SNET's retail customers. Wimer July 5, 1995 Testimony, pp. 9 and 10.

SNET further proposes in this proceeding to make available on a wholesale basis other network features which increase utility and attractiveness of the WLSB service to a prospective CLEC customer. These features include: vertical features (e.g., Call Waiting, Call Forwarding-Variable and Three-Way Calling); ISDN features (e.g. Abbreviated Ringing, Multiple Call Appearances, Multiple Directory Number Appearances and Display Services); and operator services features (e.g. Directory Assistance, Directory Assistance Call Completion and Toll and Assist). SNET posits that these feature enhancements will enable CLECs to meet the varied demands of their customers for telecommunications services and afford CLECs the opportunity to introduce new and diverse service packages to meet specific end user requirements. According to SNET, CLECs will benefit from having available the wide range of additional capabilities which they need only purchase from SNET as their end-users require. Wimer July 5, 1995 Testimony, pp. 5-7.

b. SNET's Proposed Wholesale Local Service - Basic

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SNET contends that certain regulatory restrictions and/or reporting requirements have been placed on it in providing some of the vertical features. See for example, the Department's June 17, 1992 Decision in Docket No. 92-02-04, Southern New England Telephone Company Tariff Application to Offer Smartlink Services, and the August 20, 1992 Decision in Docket No. 92-02-04, Southern New England Telephone Company Tariff Application to Offer Smartlink Services - Reopened. In those Decisions, the Department imposed various restrictions and reporting requirements for CLASSSM Features, including that SNET: (i) offer free per line blocking to certain types of end users; (ii) inform end users about the availability of CLASSSM Features through quarterly bill inserts and per call blocking stickers, and (iii) report, on a quarterly basis, the number of end users subscribing to each CLASS^{8M} Feature, the number of requests (accepted or rejected) received by SNET for CLASSSM Features, and the number and general description of the complaints received by SNET concerning each CLASSSM Feature. In the instant proceeding, SNET proposes that these restrictions be imposed on all CLASSSM service providers until such time as the Department reviews all orders concerning the appropriateness of the continuation of these restrictions and requirements. SNET states that such imposition of restrictions is appropriate in that SNET will not have interaction with the CLECs end users. SNET maintains that it will provide features to both port and WLSB customers and on a stand-alone basis. SNET notes, however, that the operational issues associated with the provision of features on a standalone basis are not yet resolved. Wimer July 5, 1995 Testimony, pp. 8 and 9.

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and Public Act 94-83

As with its proposal regarding unbundled services, SNET maintains that its WLSB proposal is consistent with the spirit and mandates of Public Act 94-83. First, SNET contends that its WLSB proposal furthers the Act's goal of "encourag[ing] shared use of existing facilities." Conn. Gen. Stat. § 16-247a (a) (5). Second, SNET states that its proposal effectively reduces barriers to entry into the market, and, combined with the unbundled services, makes available a comprehensive set of wholesale services for resale, priced in a manner that permits both facilities based and non facilities based CLECs to economically enter the Connecticut local exchange market. According to SNET, the proposed WLSB service will permit a CLEC to enter the local exchange market and meet its service obligations without being required to make the capital investment in its own network until such point in time that a CLEC determines it to be in its own interest to do so. CLECs will thus have control over the decision of if, when, where and how they will construct their own networks. SNET further contends that the WLSB offering will permit a CLEC the ability to test various market niches and geographic areas without large capital investments and will also allow a CLEC to achieve a degree of financial and market success in any geographic area prior to committing to capital investment for infrastructure. SNET argues that, by virtue of its WLSB offering, competition will develop more quickly and end users will benefit by the greater selection in services and providers. Wimer July 5, 1995 Testimony, pp. 4-5. 18-19.

c. Proposed Rates

Similar to SNET's proposed unbundled offerings, SNET proposes that rate structures for its WLSB offering and associated network features reflect costs incurred by SNET to provide and support them. Specifically, SNET proposes that a monthly charge be applied to the WLSB offering, to vary in accord with the four geographic designations of Metro. Urban, Suburban and Rural (as with the unbundled loops). SNET maintains that price differentiation based upon geographic considerations is appropriate in view of the differences in the cost of providing WLSB in the respective areas. SNET acknowledges the technical limitations in measuring the anticipated volume of WLSB. Rather than delay the offering of WLSB until the required capacity is available, however, SNET proposes to offer a flat rated service. SNET further proposes to make available certain feature enhancements to the WLSB at a flat monthly rate with no geographic variance, under the presumption that costs associated with providing these feature enhancements do not generally vary by geographic location.

As referenced earlier in discussion of SNET's proposed unbundled services, SNET performed a cost of service study, which, according to SNET, was conducted pursuant to the Department's June 15, 1995 Decision in Docket No. 95-10-01. SNET states that 100% of the cost of the local loop and 100% of the wholesale revenue generated from the sale of the local loop to prospective resellers are included in the cost study for comparative purposes. As explained in detail in Subsection A. 1. c., above, SNET proposes that the Subscriber Line Charge (SLC) associated with WLSB be charged to the CLECs consistent with its proposed treatment of SLC associated with unbundled loops. Here again, SNET will request a waiver from the FCC to charge the SLC to the CLECs given that a CLEC end user will not be a SNET customer. SNET notes for the record that the FCC has granted waivers for billing the SLC to CLECs for both Rochester and New York Telephone. SNET commits that if the FCC orders it to charge more than the requested amount, it will adjust the state tariff rates accordingly.

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SNET's WLSB proposal further provides that prospective purchasers of WLSB will be given a corresponding credit for the Carrier Common Line (CCL) charges collected from any interexchange carrier (IXC) that completes calls to the WLSB line. According to SNET, this credit will be based on the average level of CCL charges collected per line in the previous year adjusted annually for changes in volume. SNET claims that this differs from how the CCL will be treated relative to unbundled loops in that the CCL will only be collected when SNET provides the switching facility; no credit for the CCL will be provided to the unbundled loop purchaser. SNET maintains that under these conditions, a CLEC retains the option of collecting the CCL directly from an IXC through its own access charges should it determine that doing so is in its best interests.

SNET states it has priced its proposed WLSB rates and features above TSLRIC with a contribution to overhead that will be based on a percent mark-up over cost. SNET contends that the amount of contribution provided by WLSB will by design be minimal because WLSB is considered by SNET to be a critical capability if CLECs are to effectively enter the Connecticut local exchange market and price is important to prospective providers. However, SNET is of the opinion that some margin is necessary from all products and services for any company if it is to survive in the long term and has, accordingly, included some markup above cost in its proposed prices.

SNET maintains that its proposed WLSB rates are priced above their respective cost and below the retail rates for business service, thereby avoiding any price squeeze in the business market segment. However, SNET does acknowledge that this is not the situation in the residence market where the proposed wholesale rates are above those of SNET's current retail residential service rates. Consequently, SNET considers it imperative that the Department establish a Universal Service Fund (USF) to be used by the CLECs to minimize any impact associated with a potential price squeeze. A detailed description of SNET's USF proposal is contained below.

SNET further explains that while it has proposed WLSB rates which are a mirror image of the aggregated sum of the unbundled service components (unbundled loops, unbundled ports and associated interconnection arrangements). SNET proposes that the Department approve a flexible range of rates for the WLSB. SNET argues, as it did with its proposed unbundled services, that based on the information gained during its meetings with potential market entrants, the entire market is dynamic and unknown. SNET states, therefore, that the incurred costs of providing WLSB could prove to be higher or lower than currently estimated in this proceeding. SNET contends that it needs flexibility to adjust its prices to correct for any differences in projected demand, minor changes in costs, or to otherwise make appropriate market responses. Wimer July 5, 1995 Testimony, pp. 10-15.

Relative to the operational processes for the provision of WLSB, SNET states that it has been working with AT&T and other CLECs to identify operational requirements associated with making WLSB available. SNET indicates that

A price squeeze occurs when a company competing in the market place sells an essential input to another company for more than it charges its own end users for the service.

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it has also been working with Rochester Telephone to understand the issues and problems raised by the introduction of wholesale service offerings. SNET opines that while the processes for the provisioning of WLSB are similar to those used for the provision of its retail bundled basic exchange service, differences do exist which must be acknowledged and incorporated into the delivery process. For example, the billing process is different in that a bulk bill is provided to the reseller instead of individual end user bills, as SNET provides today to its customers. SNET maintains that such differences have been accounted for in the pricing of its proposed WLSB service. SNET also maintains that ongoing costs for the actual processes associated with the WLSB service were included in its cost studies. SNET contends that these costs reflect the differences in the actual process for those functions no longer conducted (e.g., ordering and billing), and the addition of costs for other functions (service disconnection associated with increased customer churn). Wimer July 5, 1995 Testimony, p. 16.

With regard to pricing feature enhancements, SNET contends that the proposed rates for such features cover TSLRIC and provide a higher level of contribution to overhead than does the basic WLSB rate. SNET states that feature enhancements represent discretionary purchases by CLECs and; therefore, in SNET's view, these features need not be priced as close to their respective cost as are unbundled loop and port services or WLSB. SNET maintains that while priced above cost, the proposed rates for features are well below SNET's retail rates. For example, SNET states that the features are priced on average 60% below the retail business rate and 28% below the retail residential rate for the same features. According to SNET, this affords CLECs ample opportunity to offer feature enhancements to their customers at competitive rates, while still generating contribution from their end users to support their own overhead costs. SNET maintains that this holds especially true when a CLEC is serving business customers because the rates charged to CLECs for features do not distinguish between residential and business service.

3. Universal Service Fund

SNET states that the purpose of any Universal Service Fund is to ensure the universal availability of affordable, high quality basic telecommunications services to all residents and businesses throughout the state regardless of geographic location. SNET explains that in an effort to achieve universal service, regulatory policies have historically shifted recovery of telephone costs from basic service to discretionary services, consisting, at the outset, primarily of interstate and intrastate toll. SNET opines that this shifting, established largely without economic foundation, subsidized basic telephone service, thereby assuring affordable rates for all residential customers, and successfully achieving the goal of universal service but at the expense of understating the real costs of providing local telephone service.

SNET contends that with the opening of all telecommunications markets to competition, consumers have come to expect greater choice and lower priced telecommunications services. SNET posits, however, that if prices for basic service are not set at economic levels, the resulting price squeeze will make the local service market unattractive to competitive providers, and customers would not receive the benefit of choice that competition is expected to offer.

SNET contends that in order to address the price squeeze issue, it has two alternatives: 1) restructure or rebalance its local residential rates; or 2) implement a Universal Service Fund. SNET, however, does not believe the first alternative to be an appropriate course of action at this time. Specifically, SNET does not believe rate restructuring or rebalancing is appropriate at this time in view of the implementation of intrastate equal access and the introduction of local exchange competition currently underway and the resulting impact on public policy and confusion to customers. Additionally, SNET notes its recent agreement with OCC not to raise residential rates until January 1, 1998. To increase

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residential exchange rates would violate that agreement and would be inconsistent with SNET's promise to the public that its rates would not increase. SNET further argues that competitors will be focusing their marketing strategies on the complete basket of services that a customer purchases, to which SNET will have to respond. In SNET's view, across-the-board changes to residential services would ignore market realities and would thus be inappropriate. For these reasons, therefore, SNET supports the second alternative of implementing a USF.

SNET maintains that, if properly constructed, a USF would provide a source of revenues to allow recovery of residential exchange service costs from and for all providers, thereby eliminating any perceived disincentive to market entry. In SNET's view, in order to accomplish this objective, the USF must be competitively neutral and must place on all providers in an equitable manner the obligation to pay into and the opportunity to draw from such fund. According to SNET, the USF can provide for an orderly transition to a competitive marketplace without subjecting the residential subscriber to sudden and significant price increases that could jeopardize the goals of universal service. MacClintock July 5, 1995 Testimony, pp. 2-3.

According to SNET, the aggregate value of any USF allowance would be the difference between the revenues generated by a provider from residential exchange services and the costs to provide those services. Specifically, revenues would be calculated on the basis of the two current residential exchange service pricing options (i.e., flat rate service and Per Call (usage sensitive) service). Costs would be based on SNET's incremental cost study of basic exchange service for each residential pricing option, with the aggregate difference between cost and revenue determining the total fund requirements.

SNET explains that loop costs associated with the provision of exchange service vary by geographic area, with costs in dense and metropolitan areas substantially less than those in rural areas. SNET has developed cost projections corresponding to four proposed model areas, which in turn were used to project four levels of cost for each of the two residence exchange rate plans. SNET's current flat rate service prices vary in accord with the number of customer access lines in their respective local calling areas, which are currently designated Class I through Class V. Under SNET's present local service pricing structure, the Class I exchange contains the fewest customers and has the lowest rates, while its Class V exchange has the largest number of subscribers and the highest rates. SNET claims that this rate structure was based on the "value of service" principle, with no direct correlation of price to costs. SNET claims that some exchanges provided at the highest rate (Class V) have the lowest cost profile (Metropolitan). Therefore, the combination of four cost levels and five price levels produce a possibility of twenty permutations of price minus cost. According to SNET, these cost and pricing differentials define the subsidy requirement. With regard to SNET's Per Call Service, SNET opines that this service is offered at uniform rates throughout the state, and, therefore, there are only four possible combinations of price and cost (one for each of four loop cost models).

Consistent with its proposed rate structures for unbundled loops and wholesale rates for local service, SNET maintains that a USF requirement has been developed for service to cities and towns segregated into each of the four cost model areas. The applicable flat rates are aggregated by the number of customers in each exchange within the model area. SNET cites as an example, the proposed Metro area, which includes towns in the current II, III, and V exchanges, with corresponding flat rates of \$14.03, \$16.03, and \$18.03, respectively. SNET then combines the flat rate differential with the Per Call differential based on the relative mix of flat rate and Per Call rate customers. MacClintock July 5, 1995 Testimony, pp. 3-5.

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SNET estimates that in consequence of that approach an estimated annual USF commitment of \$58 million will be required to ensure full recovery of residential exchange costs by providers. SNET proposes that any provider in Connecticut offering a local residential line, regardless of the ultimate end users' financial condition or their use of other feature enhancements or services, would be permitted to withdraw from the USF for their respective service areas. SNET also proposes that eligible providers (facilities based providers and resellers) be able to withdraw from the USF based on the difference between the wholesale price they pay SNET and the retail price, plus any mark-up on SNET services. If the CLEC is a full facilities based provider, the CLEC would be limited to the amount SNET withdraws from the fund. SNET does not believe CLECs should be allowed to recover their start up costs and/or joint and common costs. According to SNET, allowing such recovery would reward inefficiency because a CLEC would have no incentive to limit costs if it were guaranteed recovery from the USF. SNET further claims that recovery of start up costs and/or joint and common costs from the USF would discriminate against SNET which is not seeking to recover its start up costs of offering unbundled loops and WLSB or the joint and common costs from offering local residential service. SNET contends that such recovery would mean CLECs could use the fund as a source of financing entry into the local service business with SNET effectively providing a subsidy. SNET Reply Brief, pp. 38-39.

SNET states that all residential local service options should be eligible for inclusion in any USF subsidy pool as long as the service satisfies the definition of basic service in the Department's February 28, 1995 Decision in Docket No. 94-07-07. SNET maintains that while the Department has directed all service providers to include a basic service option equivalent to those currently offered, nothing should preclude companies from providing other service options as well.

SNET opines that payments from the fund will encourage the offering of other innovative service options and minimize contention regarding assessments of the relative prices and costs of alternate service options. SNET states, however, that providers should not be permitted to include costs in its USF cost pool that are associated with providing feature enhancements beyond basic service, or for providing local calling areas larger than those of basic service, as means to request a higher payment from the fund. MacClintock Testimony, pp. 6 - 7, SNET Exhibit, AUM-3.

SNET further proposes that any USF be funded by assessments to all telecommunications providers in Connecticut consistent with the Department's January 26, 1994 Decision, in Docket No. 93-08-07. Under SNET's proposal, payments would be based on a percentage of Connecticut taxable telecommunications revenue. Additionally, SNET proposes that any USF be managed by an independent third party administrator. SNET states that this third party administrator would be responsible for processing fund receipts and disbursement, for determining fund requirements and adjusting them as necessary, and for annual true-ups undertaken to rebalance payments into and withdrawals from the fund.

SNET recommends that all transactions with the fund occur on a monthly basis, to minimize financial exposure for smaller companies. SNET recommends that revenue paid into the fund be based on a fixed percentage applied to the applicable monthly revenues of the telecommunications company. Additionally, SNET recommends that payments from the fund be based on the number of local residential exchange lines served by the recipient during the previous month in each model area, and the applicable payment per line. SNET recommends that cash flow requirements be monitored by the administrator to assure ongoing financial integrity of the fund. MacClintock July 5, 1995 Testimony, pp. 8 - 9.

Under SNET's USF proposal, any Fund created would be reduced over time as the Department determines that the service in one or more of the geographic service areas can be classified emerging competitive or competitive, and that competition can be sustained without continuation of the Fund. SNET states that market forces will move costs toward price, and price toward cost over time, thereby eliminating the need for the Fund. SNET also suggests that the Fund

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could be terminated by the Department on its own motion, or at the request of another party, at any time. SNET states that the disposition of future local exchange rates, which will affect the continuing need for a USF, will also be addressed in Docket No. 95-03-01, Application of The Southern New England Telephone Company for Financial Review and Proposed Framework for Alternative Regulation. SNET recommends that unless terminated earlier, at the end of the five year transition period as proposed by SNET in Docket No. 95-03-01, the Department should review the USF to determine if it should continue.

Lastly, SNET proposes that any USF be effective as soon as a CLEC begins to provide local service in Connecticut. SNET states that it recognizes that local service provisioning may, in fact, precede a decision in this proceeding, and does not seek to delay implementation of competition pending resolution of USF issues. Accordingly, SNET argues that the Fund must provide for retroactive payments to CLECs effective to the date of their first local residential customer. SNET maintains that in order to finance such payments to service providers, the USF must also be provided the authority to impose assessments to all providers retroactively to the date when CLECs begin to provide local residential service. MacClintock July 5, 1995 Testimony, pp. 9 and 10. Acknowledging that Connecticut is at the early stages of local service competition SNET further proposes that the Department and the CLECs review the Fund six months from its effective date to determine if it is operating in a manner that is competitively neutral and encourages efficiency. SNET Brief, pp. 35-40.

4. Cost of Service Studies

As is evident from the above discussion of SNET's proposals, its proposed rates and resulting request for establishment of a USF are based on cost studies independently developed and submitted in this proceeding by SNET. SNET argues that its underlying cost studies are consistent with previous Department decisions (i.e., Docket Nos. 88-03-31, 89-12-15 and 94-10-01), are complete, and provide the Department sufficient cost information to determine the reasonableness of SNET's proposed rates in the instant proceeding. SNET Brief, pp. 9 - 10.

The following discussion sets forth SNET's positions on the controversial issues arising from its cost studies.

a. Depreciation

SNET argues that its use of economic depreciation rates is an appropriate response to the emergent competitive environment. SNET opines that in Docket No. 94-10-03, it proposed depreciation rates that "better reflect the remaining

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lives in the Company's plant, on a going forward basis, to be effective upon the implementation of an alternative regulation proposal for noncompetitive services." SNET claims that it utilized the same proposed depreciation rates in the cost studies filed in this proceeding in order to use the best estimate of all costs, including those costs associated with capital recovery. SNET claims that its proposed service lives are consistent with its construction plans upon which all costs presented in its cost studies are predicated. According to SNET, these rates reflect shortened useful life of technology and outside plant investment, consistent with actual replacement plans. SNET states that it believes its use of the proposed service lives is necessary in a competitive environment, and that it must continue to use these lives in its cost studies. SNET Brief, pp. 11 - 12.

b. Hybrid Fiber Coax (HFC) Costs

In prior proceedings, SNET has reviewed with the Department its proposed technology modernization and enhancement strategy generally referred to as I-SNET. The central elements of I-SNET are digital switching and transmission technologies supported by a broad-band, hybrid fiber coax (HFC) distribution fabric eventually covering all of the SNET service area. SNET has provided, since its initial commitment to I-SNET, a number of estimates regarding the inherent technical attributes and economic benefit of deploying I-SNET in Connecticut. Simply stated, SNET suggests that by use of the latest digital transmission technologies and the availability of a broad-band HFC distribution network any number of information, entertainment or communications services can be made available to the public over a common infrastructure.

In the conduct of performing cost studies for this proceeding, SNET independently chose to model its network costs, in part, on the assumption that I-SNET will be the operational platform for its future network. In so doing, SNET has assigned all of the underlying costs of unbundled loops to local telephone service on the basis that such facilities will be used to support its own local service offerings and those of the CLECs under provisions of its resale tariffs. (Participants in this proceeding have objected to this approach which will be discussed later in the respective participants' positions). SNET maintains that its decision to assign all costs associated with HFC to its current services is proper. SNET opines that its decision to deploy I-SNET is supported by similar technology deployments of telecommunications companies in other jurisdictions and by the announcements of potential competitors in Connecticut that they will provide telephony on upgraded HFC networks either currently under construction or envisioned for deployment by prospective competitors. Moreover, SNET claims that I-SNET will benefit the present and future needs of telecommunications consumers in the state by allowing SNET to continue as a viable competitive provider of high quality, reliable services, and by

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allowing SNET to offer more services from which consumers may choose. In that same vein, SNET contends that I-SNET will enable consumers and businesses throughout Connecticut to purchase varied telecommunications services to meet their individual needs from a single provider. According to SNET, the state will benefit from I-SNET because it constitutes deployment of a full service network on a ubiquitous basis which will be a strong point in attracting and retaining business in the state.

SNET further states that I-SNET will provide substantial cost and productivity savings to telephone subscribers. According to SNET, evidence in the instant proceeding, and in Docket Nos. 95-03-01, 95-03-10 and 94-10-03 demonstrate that significant cost reductions and productivity improvements will be realized with the deployment of HFC when compared to maintaining traditional metallic facilities in the distribution network.* SNET posits that I-SNET will provide new and improved management capabilities that will result in lower operational costs and improved service quality. For example, SNET states that it has quantified the operational savings per access line and has demonstrated in this proceeding that for major task areas (e.g., provisioning of service, maintenance of the network, and growth of the network) there will be an estimated reduction of \$74 per access line in wage and associated nonwage expenditures. Additionally, according to SNET, a comparison between its 1993 residential cost study (which does not include HFC) and its 1995 residential local service cost study demonstrates that telephony is benefiting from I-SNET through substantial cost reductions. SNET claims that the cost savings are entirely attributable to telephony and directly reflected in the prices for its unbundled loops and WLSB. SNET also claims that the cost of the local loop will decrease with HFC, translating to an eventual decrease in telephony costs and improved service quality. Therefore, SNET

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OCC urges the Department to give little credence to SNET's claim of cost reduction. OCC argues: (1) SNET's Board of Directors made the decision to deploy the I-SNET HFC network without the opportunity to review any telephony-only financial justification or analysis; (2) the alleged cost savings are based upon wholly speculative projections regarding HFC performance capabilities in connection with the provision of telephone services; (3) the alleged per line cost savings projected for HFC are substantially exceeded by the potential per line cost savings that could be realized with the current copper network; and (4) SNET's analysis fails to account for the fact that telephony ratepayers are not only going to be burdened with the incremental investment costs of deploying the new network, but also burdened with SNET's potential recovery of hundreds of millions of dollars for the depreciation reserve deficiency to allow cost recovery for the old network. OCC Brief, pp. 14-15.

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concludes that absent a price increase for local service, telephony subscribers will not be at risk of subsidizing any failed broadband services venture.

SNET also maintains that its methodology for the assignment of the direct and joint costs of the HFC upgrade is consistent with generally accepted economic principles, including cost causation, and does not over-burden telephone subscribers. SNET states that in order to attribute a cost to a service, a cost must be incurred in consequence of some increment of demand for the service, or must be avoidable if demand is not realized or the service is eliminated all together. According to SNET, these same economic principles support its proposal for the assignment of HFC direct and joint costs.

SNET argues that construction of a hybrid fiber coax distribution system engenders both direct costs and joint costs on the part of SNET with joint costs comprising roughly half of all HFC investment. In the opinion of SNET, there are no recognized economic principles that dictate how joint costs of the HFC network to a particular product or service are to be assigned, and therefore, it has used its own discretion to apportion joint costs equally to telephony and broadband services based on the number of subscriber lines. Specifically, SNET allocates an equal share of joint costs to both telephony and broadband services on a customer by customer basis in order to minimize any influence of an allocation scheme on SNET's ability to competitively price its services. SNET also states that it has demonstrated that even in the most extreme case (i.e., all broadband joint and direct costs assigned to telephony services). I-SNET would still be a cost justifiable initiative and worthy of the Department's support.

SNET disagrees with other participants' criticism of its HFC cost assignment methodology. While noting that several of the participants are critical of its HFC cost assignment approach because it is the same approach that the Department rejected in its Final Decision in Docket No. 95-03-10, Application of The Southern New England Telephone Company for Approval to Conduct a Dial Tone Transport and Switching Market Trial, SNET believes this criticism is unwarranted. For example, SNET states that it interpreted the Decision in Docket No. 95-03-10 as rejecting SNET's cost assignment proposal because the record was insufficient for the Department to judge the reasonableness of the methodology until actual cost data was available for the Department's review. SNET opines that the level of documentation provided in support of its cost studies in this docket and in Docket No. 95-03-01, has exceeded the level of information that the Department had before it in Docket No. 95-03-10 and consequently satisfies that objection of the Department. SNET also opines that its cost information indicates that whether or not there is any video services revenue to offset some of the HFC joint costs, real costs to provide telephone service will decrease when statewide deployment of I-SNET is completed.

SNET also states that as a result of the Department's Decision in Docket No. 95-03-10, SNET again compared its cost assignment proposal with other methodologies offered by the industry in other jurisdictions. According to SNET, its proposed HFC cost assignment methodology remains the most reasonable methodology available. Additionally, SNET

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states that it has been unable to find, nor have any of the participants in this proceeding presented, any cost assignment methodology proposals that are better or more reasonable than SNET's.

SNET claims that some of the cost studies filed in support of its proposed tariffs in this proceeding were already completed and filed with the Department prior to issuance of the Final Decision in Docket No. 95-03-10 and, accordingly, may not reflect the concepts introduced in that proceeding that might otherwise have modified SNET's submissions had they been known at the time of the filing. SNET states that its use of the same methodology for HFC cost assignment that it had proposed in Docket No. 95-03-10 reflected a conscious decision by SNET to proceed, since any attempt to redo the cost studies at that time would have caused a delay in these proceedings. SNET concludes that it again offered its HFC cost assignment methodology in this proceeding, only after providing the Department with stronger cost support on the telephony side and after again reviewing what other companies are proposing in other jurisdictions. SNET Brief, pp. 12-23.

Loop Allocation C.

Regarding SNET's allocation of 100% of the loop costs to the unbundled loop, WLSB and local service. SNET contends that it interpreted the Decision in Docket No. 88-03-31, to require loop allocations to be made only in its Fully Distributed Cost (FDC) studies.9 SNET contends that it complied with this interpretation of the

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Lightpath argues that SNET's cost studies improperly assign 100% of the loop costs to local residential service. Lightpath states that the cost of the loop is recovered through a variety of retail revenue sources, including access, toll and vertical features. Lightpath also states that when a firm provides a loop on an unbundled basis to a competitor, the firm loses access to the revenue opportunities associated with the use of the loop and these opportunities are transferred to the purchaser of the loop. Lightpath maintains that as a result, if the cost of the loop were to be spread among the services other than the unbundled loop, the provider of the unbundled loop would be prevented from recovering its costs, and would be forced to subsidize the use of the loop by its competitors. According to Lightpath, it agrees with SNET that it is appropriate to recover the entire cost of the loop from the unbundled loop purchaser. Additionally, Lightpath believes it to be inappropriate to recover 100% of the cost of the local loop from local residential services. AT&T disagrees with SNET and Lightpath. AT&T states that SNET's admitted violation of the Department's directives regarding loop cost allocation must not be permitted to continue. AT&T claims that SNET's argument focuses exclusively on the usage customer who subscribes to vertical features and/or makes toll calls. AT&T also claims that SNET overlooks its

Department's orders in that proceeding and has always done loop allocations in its FDC studies. According to SNET, it was not until the issuance of the Final Decision in Docket No. 94-10-02, that it became clear that the Department was requesting explicit loop allocations in its TSLRIC studies. However, by that date, SNET's cost studies were completed and filed with the Department, and any attempt to modify the cost studies at that time would have caused substantial delays in this and many other proceedings. SNET maintains that the Department's requirement to allocate 100% of the costs of the loop is inconsistent with the economic principles of cost causation. SNET also maintains that while the loop may be perceived as having multiple uses, the loop cost is not usage sensitive (i.e., loop costs do not vary with usage).

Additionally, SNET maintains that if the cost of the loop is allocated for purposes of determining the cost of an unbundled loop, WLSB or local residential service, SNET will not be able to recover the full costs incurred by it in providing the loop. SNET further maintains that portions of a loop's cost cannot be assigned to other services simply because they use that particular loop due to the fact that SNET may not be the future provider of such type services to an end user and, therefore, will not be able to fully recover the costs it has assigned to that service. SNET argues that this possibility exists whether the loop is allocated for purposes of determining the cost of an unbundled loop, WLSB or local residential service. SNET also argues that if the cost of the loop is allocated to other services, its ability to recover the full costs of the loop will differ depending on whether the loop is an unbundled loop, part of WLSB or part of local residential service. For example, in the case of an unbundled loop, CLECs will generate revenues from access, intrastate toll and vertical and enhanced features, all potential revenues from their subscribing end user. SNET contends that allocation of the costs of the unbundled loop to any other service than those provided to the wholesale customer would promote uneconomic decisions on the part of competitors, and distort the CLECs' "build vs. buy" decision-making.

Similarly. SNET expresses concern that it will be unable to fully recover costs of the loop associated with WLSB if it is required to allocate some portion of the loop cost to other services. SNET maintains that when it sells WLSB to CLECs, it generates revenue from feature enhancements and interexchange access revenues as well as local service.

own testimony that approximately 50% of its customers are unprofitable and the evidence on the record that SNET is better off selling its service at wholesale to CLECs than at retail to low usage end users. Additionally, AT&T maintains that assuming the Department rejects SNET's proposed pricing and USF proposals and adopts AT&T's recommended pricing approach, SNET will still receive significant contribution when it sells wholesale local services to CLECs. AT&T contends that SNET has not taken into account the stimulation from toll and access services that would result from competition. According to AT&T, while SNET's market share declined from 1984 to the present, SNET has not experienced any revenue loss from toll services, because its minutes-of-use increased by almost 90% during this period due to stimulation. Lightpath Reply Brief, pp. 6 - 7; AT&T Reply Brief, pp. 8-11.

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However, under this scenario, the amount of revenue that SNET could conceivably generate would be less than it might otherwise generate if SNET did not offer WLSB. SNET supports its conclusion by explaining that lower revenue is the consequence of making available feature enhancements to CLECs at a 60% and 28% discount from the retail business and residential rates, respectively. And, unless a WLSB end user presubscribes to SNET's intrastate toll services, SNET will not generate the associated intrastate toll revenue, and, therefore, will be unable to recover any loop costs allocated to toll service under this scenario.

Additionally, SNET argues that as CLECs enter the local exchange market, they will initially focus their marketing efforts on profitable, high end customers (i.e., those customers purchasing vertical features and having a large amount of intrastate and interstate toll usage and/or access). As these profitable customers leave its network, SNET contends that its ability to recover that portion of the loop costs previously borne by those customers is lost forever, leaving SNET with a disproportionate share of low yield customers (i.e., customers that only purchase local exchange service).10 SNET claims that nearly half of its residential customers are presently unprofitable, with a substantial number of these customers having no toll service or feature enhancements associated with their service. According to SNET, any apportionment of loop costs will produce a net revenue loss to it and will have a deleterious financial effect on SNET. SNET estimates that it will experience a revenue loss of \$32 million due to unbundling requirements previously prescribed by the Department, and states that the Department should not increase that revenue loss by allocating loop costs to other services. Therefore, SNET recommends that the Department support its assignment of 100% of the loop costs to the unbundled local loop, WLSB, and local residential service on the basis that it is consistent with economic principles of cost causation, provides for the cost of the loop to be recovered by the cost causer, and represents a methodology that is compatible with the competitive environment Public Act 94-83 seeks to create. SNET Brief, pp. 23-30.

B. OFFICE OF CONSUMER COUNSEL (OCC)

1. Proposed Rates

OCC states that SNET's unbundled loops, ports and WLSB proposed rates are excessive and may, if approved, discourage competitive entry into the local service markets in Connecticut. OCC maintains that the Department must guard against price squeezes by providing adequate operating margins for users of unbundled and resold services.

AT&T sees SNET's argument as flawed — simply because carriers target high end customers does not mean that they do not market to low end customers. AT&T claims that it markets to all customers including low end customers.

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According to OCC, resale competitors will not enter the local service market to any significant degree if they cannot cover their own operating expenses and do not have reasonable opportunity to earn a competitive profit. Therefore, OCC argues that the Department must closely examine SNET's proposed rates for resale and unbundling and adopt a rate structure that supports commercially feasible resale competition and unbundling throughout SNET's service areas. OCC Brief, pp. 1-2.

2. SNET's Cost Studies

OCC argues that SNET's TSLRIC studies are fundamentally flawed and are thus an unreliable basis for establishing rates and charges for unbundled services, feature enhancements and wholesale local service offerings.

a. Loop Costs

According to OCC, SNET's TSLRIC study for unbundled loops is inconsistent with generally accepted economic costing principles, including Department orders and directives regarding costing methodology. OCC maintains that these inconsistencies, combined with the disproportionate assignment of HFC costs to telephony as discussed below, result in clearly excessive incremental loop costs. In support of its view, OCC cites to benchmarks provided by other jurisdictions and other LECs.

In supporting its arguments, OCC presents the following recitation of perceived costing errors in SNET's studies: (1) SNET's loop costs are bloated because SNET fails to account for the fact that 25% of loop costs are already being recovered from the interstate jurisdiction, properly leaving only 75% of loop costs to be recovered from the intrastate jurisdiction: (2) by utilizing only a three year study period. SNET's study represents a short-run, not long-run study, in which all costs are not considered as variable; (3) SNET calculates unit costs using the capacity cost concept, a methodology that is inconsistent with most economic theory and provides no guidance on the level of true economic costs: (4) SNET's modeling of loop costs is plagued by conflicting methodologies and other inconsistencies, driven by SNET's desire to report a large deficit in the residential exchange market; (5) various assumptions that dictate the cost study results for each of SNET's proposed geographic models do not reflect the economics of the involved telecommunications networks, but instead, result in a relative overstatement of rural relative to urban costs; (6) SNET's costing model does not accurately reflect SNET's construction plans for the study period; (7) SNET may have overstated the largest cost component of the loop, digital loop carrier; and (8) SNET's loop study is not sufficiently documented to ensure its accuracy, reliability, and reasonableness. OCC Brief, pp. 16-18.

OCC implores the Department to reject SNET's cost study for unbundled loops and in its place order SNET to construct a study that is consistent with the Department's approved costing methodology, including full and complete documentation of study results and methodology. OCC maintains that the revised cost study would form the basis for a retroactive true up for any interim rate levels established by the Department in this proceeding. Until the completion of the revised cost study, OCC recommends that the Department rely on SNET's current residential retail rates as the starting point for determining appropriate and competitively viable rates for unbundled loops. According to OCC, by taking the retail rate and subtracting out SNET's avoidable costs, the Department can construct a reasonable rate for unbundled loops, which it calculates to be approximately 30% below SNET's retail price. Id., DD. 19-22.

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b. Loop Allocation

OCC maintains that the loop is a critical precondition to delivering all switched services to the consumer. OCC states that under basic cost-causation principles, the loop is a common cost, both in practical as well as in economic terms. Therefore, OCC maintains that all services that cause SNET to incur this cost should share in the cost recovery responsibility. OCC Brief, p. 4.

To this end, OCC implores the Department to reject SNET's attempts to allocate 100% of loop costs to local exchange services. According to OCC, such allocations ignore numerous Department directives. In addition, OCC argues that SNET's assignment of loop costs exclusively to local service is inconsistent with the economic costing principles endorsed by SNET and its expert witnesses throughout this proceeding. OCC further argues that allocation of total loop costs to local service operates as a form of Ramsey Pricing, monopolistically exploiting SNET's most dependent customers, which, as explained by OCC, the Department has previously found to be an improper allocator of residual costs because it allows a monopoly utility to inappropriately assign more of the revenue requirement to monopoly services and less to competitive services. OCC contends that by residually allocating all common loop costs to local service, and recovering those costs solely from inelastic local exchange customers. SNET is employing a Ramsey Pricing scheme. Id., pp. 5-7.

OCC states that SNET's allocation of 100% of loop costs to local service results in the false appearance that the rates for local residential service are below cost and require a subsidy. OCC maintains that if cost responsibility for the loop is shared on an equitable basis with all other services that use the loop, and if jurisdictional separations are appropriately handled, local residential service would be priced above TSLRIC. Consequently, OCC recommends that the Department reject SNET's assignment of total shared loop costs to local exchange service and use, as the maximum possible allocation ceiling, an allocation level that results in 75% of the loop costs indicated in SNET's study.

In light of the above, OCC opines that there is no legitimate basis for delaying resale of local residential service until adoption of a USF, because there is no basis for such a Fund since residential rates are above cost. Accordingly, OCC recommends that while the proper loop cost allocations are being decided, the Department should require SNET to implement its local residential resale tariff and deny its proposal to delay implementation until a USF is established. OCC urges the Department to require SNET to amend its 1995 cost study for local exchange service to conform to prior Department directives regarding cost assignment of the loop and jurisdictional separations. OCC Comments, pp. 5-10; Collins September 8, 1995 Testimony, p. 7; OCC Brief, pp. 3-10.

c. HFC Costs

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OCC argues that SNET's TSLRIC studies are tainted by use of a methodology that results in "a disproportionate assignment of Hybrid-Fiber Coaxial Cable costs to telephony." OCC Brief, p. 11. According to OCC, the studies assign the bulk of HFC costs to telephony despite evidence that the primary driving force behind SNET's decision to deploy the HFC network was SNET's desire to provide broadband services, such as Video Dial Tone (VDT). <u>Id</u>.

Specifically, OCC explains that SNET seeks to assign approximately 64% of HFC costs to telephony and the remaining 36% to broadband services. OCC continues by stating that on a total investment basis, SNET anticipates that 77% of HFC costs will be assigned to telephone and 23% will be assigned to broadband services. <u>Id.</u>, pp. 11-12.

OCC argues that in Docket No. 95-03-10, the Department rejected SNET's allocation of HFC costs between telephony and broadband services. In OCC's view, SNET, in this proceeding, ignored the Department's directives in Docket No. 95-03-10 by applying the same HFC assignment and allocation methodologies. <u>Id.</u>, pp. 12-13.

OCC contends that SNET's methodology for allocating joint costs is without a rational basis because the number of video service subscribers has minimal correlation to SNET's total HFC costs and because it causes telephony ratepayers to bear responsibility for an unjustifiable share of these joint costs. In OCC's opinion, since for the foreseeable future the demand for SNET's telephony services will far outstrip the demand for broadband services, captive telephony ratepayers could be responsible for virtually all of the joint costs. Additionally, OCC argues that SNET's disproportionate assignment of HFC joint costs to telephony, like its allocation of 100% loop costs to local exchange services, operates as a form of Ramsey Pricing because it assigns the overwhelming majority of HFC joint costs to local telephone service, a significantly more inelastic group of customers than video and broadband consumers. Id., pp. 13-15.

The OCC thus recommends that the Department reject SNET's HFC assignment and allocation methodologies. <u>Id.</u>, p. 16.

d. Depreciation

OCC contends that SNET is prematurely and inappropriately burdening local telephone service with increased depreciation expense related to SNET's commitment to I-SNET. Just as with I-SNET direct investment costs, OCC recommends that the Department not accept the proposed increase to depreciation expense engendered by I-SNET

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unless SNET can demonstrate that local rates will be reduced in consequence of a corresponding reduction in operating expense. Rather, OCC suggests that these costs and expenses be applied to the services that are responsible for them, which, according to OCC, will in all probability not be local exchange and intrastate toll services. OCC Comments, pp. 10 and 11; Gabel September 8, 1995 Testimony, pp. 5 and 6; Collins September 8, 1995 Testimony, pp. 4, 5, and 7; OCC Brief, pp. 10-16.

3. Contribution

OCC concurs with SNET's position that rates and charges for unbundled services, feature enhancements and wholesale local service offerings should be priced to permit SNET to recover its costs with some contribution to overhead. However, OCC is of the opinion that any such recovery scheme should be employed only with those services which cause the specific overhead. Specifically, OCC supports the determination of service rates based on TSLRIC plus a contribution to overhead. OCC argues, however, that SNET has not adequately explained in any of its submissions the criteria or methods used to determine its proposed levels of contribution. According to OCC, SNET did not describe the methodology it used in determining the appropriate contribution for these services, and further did not provide any evidence demonstrating how the contribution was calculated. OCC contends that absent this information, it is impossible to determine whether and to what extent the contribution reflects any "monopoly bloat" and/or operational inefficiencies, including any capital distortions that SNET alleges are caused by rate of return regulation. OCC also contends that SNET is silent concerning the subject of total joint and common costs and the level of contribution provided by other loop- or business-related services. OCC argues that the Department thus has no way to determine the reasonableness of the contribution SNET is seeking for resale of unbundled elements and local service.

As described above, according to OCC, in order to successfully introduce resale to the Connecticut market, it will be necessary to ensure that prospective providers can realize adequate margins between the wholesale cost of SNET services and service elements and the market price for those services. OCC posits that to accomplish adequate infrastructure investments, it will be necessary to avoid setting those margins at a level that will result in the discouragement of infrastructure investment. Therefore, OCC implores the Department to require SNET to clearly delineate and substantiate TSLRIC (without contribution) and related historical retail function expense information for each of the services that are to be resold. OCC claims that the use of this information will establish a benchmark in the determination of the wholesale cost and retail price available for resold services. Collins September 8, 1995 Testimony, pp. 5-8.

4. Universal Service Fund

According to OCC, SNET's allocation of 100% of loop costs to local exchange services results in an impression that retail rates charged by SNET for local residential service are below their respective TSLRIC threshold and that a USF is needed to encourage resale of local residential service. OCC argues that if the costs of the loop are not included in the TSLRIC studies for local exchange services, just as loop costs are not included in the TSLRIC studies for other SNET's switched services using the loop, local residential service is priced well above TSLRIC and hence is by definition not a subsidized service. In OCC's view, when the loop is appropriately treated as a common cost, the rates for local residential service not only exceed TSLRIC but also make a substantial contribution to overhead and other

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common costs. Therefore, OCC argues that there is no basis for a Universal Service Fund as proposed by SNET since residential rates throughout the state are above cost. OCC Brief, p 8.

C. AT&T COMMUNICATIONS OF NEW ENGLAND, INC. (AT&T)

1. Proposed Rates

AT&T opines that, because facilities-based competition is in its infancy and it will be a number of years before it is widespread, resale is necessary to allow new entrants to succeed. According to AT&T, for competition to have a chance to succeed, the rates for both unbundled and wholesale local service offerings must be reasonable. AT&T Brief, p. 11.

AT&T contends that SNET's proposed rates for its wholesale and unbundled residential service offerings place prospective providers in a price squeeze. This price squeeze, according to AT&T, acts as a strong disincentive to prospective providers (either resellers or facilities-based carriers) interested in serving residential customers. AT&T emphasizes that SNET's proposed wholesale rates exceed its retail rates by 15-123 percent depending on the particular rate group. AT&T further explains that SNET's proposed unbundled loop rates exceed its retail local service rates for bundled local service. Id., p. 12

In AT&T's view, SNET envisions competition to its residential service offerings as a more significant threat than competition to its business offerings and has developed its proposed rates accordingly. AT&T contends that residential consumers of local exchange services are thus hurt by SNET's pricing scheme. AT&T predicts that without economically viable rates that will allow the benefits of competitive choice to be extended to a broader base of customers, residential customers in Connecticut will not have the choices available to business customers in terms of innovative service and pricing options to serve their evolving telecommunications needs. <u>Id</u>., pp. 12-13.

AT&T contends that a price squeeze exists in consequence of three main facts: (1) SNET has failed to follow the Department's directives regarding the allocation of HFC and loop costs, causing SNET's costs of providing local service to be higher than they would otherwise be; (2) SNET proposes to recover exorbitant amounts of contribution from its wholesale service offerings; and (3) SNET does not adequately reflect in its wholesale rates costs that it will avoid by offering wholesale rather than retail services. In AT&T's view, adjusting SNET's proposed rates to correct for these deficiencies produces wholesale and loop rates that are significantly less than the rates proposed by SNET. This, in turn, according to AT&T, eliminates the price squeeze on CLECs that resell SNET's local

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service in the Metro and Urban areas and greatly reduces the price squeeze in the Suburban and Rural areas. <u>Id.</u>, p. 13.

2. Cost of Service Studies

a. Loop Allocation

AT&T argues that SNET's allocation of 100% of its loop costs to local service has the effect of inflating both SNET's retail and wholesale TSLRIC baselines. According to AT&T, the Department has historically found that the inclusion of loop costs with local exchange service fails to recognize adequately the cost responsibility of other services that use the loop. In AT&T's view, loop costs should be recovered from all users of the loop. SNET Brief, pp. 18-19.

b. HFC Costs

AT&T contends that the deployment of the HFC network has not been authorized by either the Department or the FCC and yet SNET's cost studies include HFC joint costs. While not opposing SNET's entry into the broadband information and entertainment business, AT&T states that it is concerned that the cost of participation not be recovered from monopoly services such as those services under review in this proceeding. AT&T maintains that such services do not require the capability of an HFC network; Digital Loop Carrier (DLC) technology will provide all the functionality required by the proposed unbundled loops, ports, and wholesale services during the construction of the HFC network.¹¹ Accordingly, AT&T argues that it is inappropriate for the cost of telephony services to increase as a result of SNET's decision to construct an HFC network.

AT&T also argues that the cost studies submitted by SNET to support its unbundled loops and ports and wholesale tariffs allocate HFC in exactly the manner previously rejected by the Department, resulting in overpriced loops, ports, and wholesale services. AT&T states that the technologies underlying loops, ports and wholesale services do not now.

SNET disagrees. According to SNET, the HFC architecture provides more benefits to telephony users than does DLC. SNET states that there are no substantial economic cost savings and efficiencies associated with traditional DLC. Additionally, SNET states that DLC does not provide the same benefits that SNET is seeking in modernizing its outside plant, particularly the increased reliability, and the administrative and maintenance efficiencies gained by HFC. SNET maintains that DLC provides more challenges and difficulties than does traditional copper plant and when compared to the costs and productivity savings gained by HFC, DLC is not an adequate substitute technology for outside plant modernization. SNET Reply Brief, pp. 6-8.

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nor will they in the near future, rely on HFC technologies or architecture. Therefore, AT&T posits that the studies submitted by SNET cannot be used to support the rate levels in the tariffs. AT&T also argues that the HFC equipment, which is capable of being used for both telephony and broadband, may be categorized as joint, even though there would be no need for such equipment in a DLC network. AT&T states that in this case, the cost of the equipment should be treated as a direct broadband expense.

Additionally, AT&T posits that SNET's cost studies do not contain direct Video Dial Tone cost information. Because these studies lack a sufficient level of information, AT&T recommends that SNET be required to provide detailed data describing how costs were allocated among the direct VDT, direct telephony and joint categories, as well as a justification for assignment of each element of the HFC network to direct telephony or the joint category. AT&T, while noting that it generally supports recovery of loop costs from the cost causative local service subscribers, opines that the methodology employed by SNET is in conflict with the Department policy that loop costs should be allocated among the services that use it. AT&T Comments, pp. 3-7; Kelley Testimony, pp. 7-9; AT&T Brief, pp. 17-19; AT&T Reply Brief, pp. 5-7.

AT&T further contends that SNET's cost studies do not allow the Department or interested parties to evaluate the effect of construction of the HFC network on telephone costs. AT&T states that instead of providing HFC and DLC results separately, SNET has provided averaged cost data. AT&T recommends that SNET resubmit cost studies showing those costs separately and include with the new cost studies the assumptions made concerning relative deployment plans for HFC and DLC, including long-term HFC deployment plans. According to AT&T, this will enable the Department and the participants to determine whether, and to what extent, ratepayers are damaged by SNET's failure to follow the Department's explicit directives regarding the allocation and recovery of HFC costs. Until SNET submits the new studies. AT&T recommends that the proposed rates be reduced to reflect the Department's Decision that joint HFC costs not be recovered from monopoly ratepayers. AT&T Comments, pp. 7 and 8; Kelley Testimony, pp. 9 and 10.

c. Depreciation

AT&T contends that SNET's proposed unbundled loops and WLSB rates must be reduced to better reflect depreciation rates prescribed by the Department. According to AT&T, once again SNET has circumvented Department directives with regard to conducting its cost studies, and AT&T therefore recommends that SNET be required to adjust its proposed unbundled and wholesale service rates to reflect the use of the Department's prescribed depreciation rates. AT&T Reply Brief, p. 13.

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d. Lack of Detail

AT&T claims that SNET's cost studies lack sufficient detail to permit it full evaluation. According to AT&T, the studies, in general, provide information at too high a level of detail. AT&T cites as examples expense factors that appear as parameters taken from other, unsupplied studies, unsupported demand estimates that are provided absent underlying assumptions and studies, and references to costs for measuring equipment that was apparently included in the port cost study. AT&T states that the references to this equipment in the SNET cost study descriptions cannot be found, and is generally useless. AT&T also argues that SNET's entries are cryptic — a legend, glossary, or any other tool that would assist in deciphering how the costs are defined and computed is unavailable. Additionally, AT&T states that there is no basic description of system structure showing components presumably listed in the study, and there is thus no way of ascertaining the validity of SNET's statements. Finally, AT&T states that there are unexplained anomalies in the studies. AT&T Comments, pp. 8-10.

e. ARMIS Report

AT&T states that SNET's TSLRIC approach produces a base cost for its wholesale service offerings that is almost identical to the TSLRIC for SNET's retail offering. According to AT&T, these results are wrong and contradict data submitted by SNET to the FCC in its ARMIS report. AT&T maintains that SNET will avoid substantial costs when providing wholesale basic exchange services, which has not been reflected in the differential SNET shows between its wholesale and retail TSLRIC. Accordingly, AT&T recommends the Department direct SNET to further reduce its TSLRIC to 26.8%, the amount calculated by AT&T based on SNET data provided in its ARMIS report. AT&T Brief, p. 24.

3. Contribution

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AT&T contends that the level of contribution to common overhead contained in SNET's wholesale, unbundled, and vertical service prices is excessive and must be reduced. AT&T recommends that the Department apply a uniform 15% markup to all wholesale services and vary the markups on other bottleneck services (i.e., vertical features) in order to minimize the potential for a price squeeze. AT&T Brief, pp. 26-27; AT&T Reply Brief, pp. 14-16.

AT&T further argues that the level of contribution contained in the OCC's revised mutual compensation proposal is the appropriate level of contribution in mutual compensation rates.¹² According to AT&T, OCC

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SNET argues that the Department should refrain from allocating a portion of the loop to mutual compensation rates. SNET contends that AT&T and MFSI should not be permitted to relitigate whether SNET is entitled to recover mutual compensation at its TSLRIC plus a contribution to its joint and common costs. SNET maintains that the only question that was deferred from Docket No. 94-10-02 was the percentage of the loop, if any, that should be allocated to mutual compensation rates. SNET maintains that it would be inappropriate to allocate a portion of the loop to mutual compensation

recommended in Docket No. 94-10-02 that a 15% markup be added to the TSLRICs for terminating local and toll calls to contribute to the cost of the loop. AT&T contends that the fundamental issues have not changed from Docket No. 94-10-02, and that the higher the markup contained in mutual compensation rates, the greater the danger of a price squeeze on CLECs and SNET. AT&T also contends that the potential for a price squeeze is particularly acute in Connecticut where 95% of all residential customers subscribe to flat rate service. AT&T maintains that there is no need for high levels of contribution in mutual compensation rates. AT&T posits that although mutual compensation is a new revenue source for SNET, it should not be viewed as a vehicle to subsidize its revenue requirement, and should only reimburse each carrier for the carrier's cost of completing calls on its network. Therefore, AT&T recommends that the level of contribution be kept at a reasonable level, that is, the level of contribution not to exceed 15%. AT&T Brief, pp. 37-38.

4. Universal Service Fund

AT&T states that while it supports the concept of universal service, it sees SNET's proposed USF as self serving, anticompetitive, and contrary to the public interest. AT&T explains that universal service should not be confused with a universal subsidy as proposed by SNET in the instant proceeding. AT&T contends that universal service and SNET's proposed USF are two different concepts with two very different beneficiaries. According to AT&T, universal service, if properly constructed, benefits society as a whole, while a universal subsidy, as proposed by SNET, benefits only SNET. AT&T maintains that SNET's USF proposal does not attempt to address the issue of affordable residential and business rates, or the issue of providing service to residents in high cost areas. Rather, according to AT&T, SNET's proposal focuses only on the desire to make SNET whole.

AT&T maintains that SNET's retail local residence rates exceed properly calculated TSLRICs and provide a contribution to SNET's joint and common costs. In AT&T's view, there is no evidenced need for a USF to subsidize SNET's retail local service rates. Further, AT&T contends that there is no need for a USF to mitigate the anticompetitive effects of SNET's proposed price squeeze. AT&T reiterates its position that if: (1) SNET's wholesale rates are adjusted to comport with the Department's directives on loop and HFC cost allocations, (2) a reasonable differential between SNET's wholesale and retail rates which reflects the level of avoidable costs calculated using SNET's ARMIS data is established, and (3) a reasonable level of contribution is provided, a price squeeze will still exist, albeit to a much lesser degree, for the Suburban and Rural areas. However, AT&T posits that a CLEC may still be encouraged to offer service in the suburban and rural areas, because the average of a CLEC's total cost to service each of the geographic areas may not exceed SNET's average retail rates. AT&T points out that should the proposed

because SNET will face a huge risk of never recovering that cost. SNET Reply Brief, pp. 27-31.

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adjustments to SNET's rates be changed by the Department such that additional or larger price squeezes result for wholesale local service, a universal service fund or some mechanism would be necessary to address this issue. AT&T Brief, pp. 40 - 43.

AT&T contends that should the Department find a need for a USF, a properly constructed USF should do the following: 1) allow eligible subscribers to receive USF support based on economic need; 2) allow the subsidy to follow the subscriber if a subsidized subscriber changes carriers; 3) be explicitly identifiable, auditable, promote efficiency and be subject to periodic tests, i.e., adjustments and eventual elimination; 4) allow a neutral third party to administer the fund; and 5) recognize and address any unique needs of rural/high cost carriers.

AT&T states that, if the Department does establish a USF, SNET's proposal is flawed. For example, AT&T claims that there is an inherent advantage to SNET in its proposal that payments into the fund are based on total Connecticut telecommunications revenues while monies received from the fund are based on the number of local residential exchange lines served. AT&T contends that SNET's plan explicitly ensures that SNET receives maximum benefits and incurs minimum funding obligations, while SNET's potential competitors provide a maximum contribution to, and receive minimum benefits from, the fund. AT&T also disagrees with SNET's contention that the amount of the fund be based on SNET's costs. According to AT&T, SNET's costs should not be used as the basis for the fund because SNET's and the CLECs' costs differ. AT&T opines that sizing the USF based on SNET's costs would result in a fund that is insufficient to cover the CLECs' costs because the methodology used by SNET to develop its costs is flawed.

AT&T further maintains that SNET has not properly calculated the size of the USF. AT&T recommends that the USF be based on the aggregate difference between SNET's costs and revenues for flat rate and per call residential

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SNET argues against AT&T's proposal that payments made to SNET should be excluded from the revenues on which CLEC payments into a USF are based. SNET states that such an exclusion would bias the fund in favor of the CLECs, allowing them to deduct a significant portion of their costs from the revenues used in determining their USF contributions, while not allowing SNET a similar opportunity. SNET also states that this inequity would result in an unfair advantage for CLECs and would burden SNET with a disproportionate contribution to the USF. Lastly, SNET states that payments made to other carriers should not be excluded from the revenues subject to determining an appropriate contribution to the USF. SNET Reply Brief, pp. 39 - 40.

SNET contends that these are the only costs that SNET has and the only costs documented before the Department. SNET states that although AT&T claims that CLECs have different costs than does SNET, there is no harm to the CLECs in basing the USF on SNET's costs. SNET Reply Brief, p. 32.

services. AT&T states that SNET has proposed a complex funding scheme whereby all LECs and CLECs can have differing costs and subsidy amounts withdrawn from the fund. This according to AT&T will be an administrative nightmare.

AT&T claims that SNET's proposed cap on the amount that CLECs can withdraw from the fund is competitively biased in SNET's favor. According to AT&T, under SNET's proposal, CLECs will not be permitted to recover their legitimate costs of providing service. AT&T contends that with this modification, SNET will be virtually impenetrable to competitive entry. Moreover, AT&T maintains that instituting SNET's proposed cap on CLEC withdrawals from SNET's USF would worsen, not alleviate SNET's admitted price squeeze.

C. CABLEVISION LIGHTPATH (LIGHTPATH)

Proposed Tariffs 1.

Lightpath states that SNET's proposed rates, terms and conditions for its unbundled and wholesale local services proposal are fraught with problems and subtle mechanisms that operate to defeat the goals of Public Act 94-83. According to Lightpath, achieving nondiscriminatory access is especially difficult because SNET's dual role as a service provider of essential facilities and competitor gives it the opportunity and incentive to discriminate against CLECs in ways that provide SNET with a competitive advantage. Lightpath contends that although SNET's testimony offers the Department and participants vague assurances of openness and fairness, its tariffs, cost studies, and universal service proposal make it clear that SNET will continue to exercise monopoly control over the public switched network through a myriad of visible as well as subtle means. Lightpath states that any one of these means applied in isolation may not thwart effective local competition, but in combination they will serve as a barrier to entry or an impediment to sustained competition. Lightpath contends, therefore, that the Department must impose adequate restrictions on SNET's pricing and rate structure to prevent competitive abuses that will stifle economic competitive entry and place excessive cost burdens on customers of less competitive services. Lightpath Comments, pp. 3 and 4; Lightpath Brief, p. 3.

Lightpath argues that SNET's proposed pricing methodologies are inconsistent with the Department's prior determinations and SNET's unbundled services and wholesale services are deficient and fail to justify the proposed According to Lightpath, SNET's proposal will discourage competitive entry into the Connecticut telecommunications market, reduce the basis for product differentiation, and eliminate an essential point of distinction between competitors in the market, contrary to the Department's February 28, 1995 Decision in Docket No. 94-07-07.

Lightpath claims that where unbundled ports are required, CLECs will be restricted to SNET's designated exchange calling areas or pay toll charges for the use of ports for traffic that does not conform with SNET's local calling areas. Lightpath explains that the pricing of SNET's resold ports places CLECs in a price squeeze if they want to expand their local calling area beyond SNET-defined boundaries, because every call outside SNET's local calling areas will incur a toll access charge. Lightpath states that loop charges and wholesale local basic service charges will restrict the CLECs' ability to establish different geographic areas from SNET or uniform pricing schemes because SNET has priced these services based on its geographic areas. According to Lightpath, SNET's proposed rates will frustrate the ability

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of competitors to offer innovative pricing and products. 15 Lightpath Comments, pp. 6 and 7; Lightpath Brief, pp. 10-12.

Noting that SNET does not intend to offer volume discounts for either its unbundled or wholesale offerings. Lightpath argues that SNET provides discounts to some of the customers that the CLECs will be competing for through the use of SNET's unbundled and wholesale services. Lightpath contends that SNET's decision to not pass along these same discounts to CLECs significantly constrains competition on price. According to Lightpath, through this subtle price squeeze, SNET will ensure its ability to retain the largest, most lucrative customers.

Additionally, Lightpath contends that the ability to compete on price may be hampered by the nonrecurring charges that SNET has proposed for the unbundled loops and ports. Lightpath posits that these rates appear to unreasonably inflate up-front cost, making it impossible for CLECs to offer their services, at least initially, at prices that are competitive. Moreover, Lightpath claims that SNET's proposed nonrecurring charges will prevent entry by CLECs and must be justified or rejected. Lightpath Brief, pp. 16-19.

Regarding SNET's proposed credit for the carrier common line (CCL) charge imposed on interexchange carriers completing calls to wholesale local service lines purchased by CLECs, Lightpath maintains that the credit is not a one-to-one flow through of the CCL charges for each wholesale local basic service line. Lightpath maintains that it is impossible to assess the merits of SNET's CCL credit scheme based on its vague description and lack of rationale for such averaging. Lightpath opines that providing only the average of CCL charges paid by IXCs to CLECs would appear to operate to the disadvantage of CLECs. Accordingly, Lightpath recommends that the Department reject anything short of full recovery for CLECs of all CCL charges collected by SNET for calls competed on wholesale services. Lightpath Comments, pp. 7 and 8: Lightpath Brief, pp. 16-19.

Lightpath further opines that SNET's unbundling and wholesale tariff would provide SNET with unwarranted pricing flexibility. Accordingly, Lightpath argues against SNET's flexible rate range proposal because "uncertainty in the market" is not sufficient justification to warrant pricing flexibility. Rather, Lightpath argues that minimum/maximum rates are reserved for competitive and emerging competitive services. Lightpath notes that SNET's proposed unbundled and wholesale services have not been reclassified and they are essential inputs to providing local

SNET disagrees with Lightpath's contention that geographic or zone pricing will not promote consumer choice. SNET states that its proposed rates are appropriate based on the geographic area in which service is being offered. According to SNET, the geographic variations in price are caused by the cost differences of providing services in these areas. SNET states that the proposed structure is consistent with the economics of a build versus buy decision that each CLEC makes upon entering the Connecticut market. SNET also contends that the structure encourages economically rational choices for carriers, rather than perpetuating the socially based price structure that was developed to protect residential users. Additionally, SNET states that a wholesale rate structure based on geographic areas will not prevent CLECs from offering innovative retail pricing schemes to end users. SNET Reply Brief, pp. 20 and 21.

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service competition without deploying physical plant. Lightpath maintains that there are no functionally equivalent services available to CLECs. Therefore, Lightpath recommends that the Department reject SNET's request for pricing flexibility. Lightpath Brief, pp. 13-14.

Lightpath also maintains that SNET's proposed tariff would permit SNET to apply zone pricing to its central office multiplexing and inter-wire center transport services. Lightpath states that SNET should not be permitted to establish density zone pricing for intrastate services because local competition for central office multiplexing and inter-wire center transport services has not been demonstrated. Therefore, Lightpath suggests that zone pricing for central office multiplexing and inter-wire center transport be rejected. Lightpath Comments, pp. 8-10; Lightpath Brief, pp. 13-16.

Lightpath states that SNET's proposed tariff denies customers efficient use of the network by prohibiting sharing arrangements with other carriers. Among the goals of Public Act 94-83 are to facilitate the efficient development and deployment of an advanced telecommunications infrastructure and encourage shared use of existing facilities. Lightpath states that SNET's proposed tariff denies CLECs the ability to take advantage of the most efficient use of transport facilities. Consequently, Lightpath recommends that the Department reject such prohibitions. Lightpath Comments, pp. 10 and 11.

2. Cost of Service Studies

a. Long Run

According to Lightpath, SNET's cost studies overstate SNET's true economic costs of its unbundled network elements and resale offerings to the detriment of potential competitive providers and, ultimately, to the detriment of the subscribing public. Lightpath argues that SNET's cost studies are not truly long run because they focus on a three year period during which SNET's network is expected to undergo significant change, including the proposed buildout of I-SNET. Lightpath contends that SNET's studies also may not accurately reflect long term technology choices and associated costs that SNET will actually incur to deploy its proposed facilities. Lightpath posits that SNET's limited three year analysis could generate cost studies that are lower or higher than those that would be achieved through properly

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In response to Lightpath and the other participants' claims that SNET's cost studies are not long run, SNET argues that having a study period of three to five years enables it to focus the change in demand on a period that may be reasonably forecasted. SNET also argues that this does not mean that only three to five years of incremental cost impacts are included. SNET maintains that an important step in conducting cost studies is not the length of the study period, but the ability to capture all the costs that will change in the long-run. Reply Brief, pp. 16 and 17.

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calculated long run studies. Lightpath cites as an example SNET's TSLRIC estimates which understate SNET's true economic costs of providing service because they omit certain fixed, one-time start up costs. According to Lightpath, this approach directly contravenes the Department's Decision in Docket No. 94-10-02 requiring SNET to include fixed, one-time start up costs in all marginal cost analyses performed to support proposed service rates. Lightpath also posits SNET's failure to capture sunk costs results in an understatement of the true economic costs of providing service over the long-run, and may reflect excessively low price floors for services that SNET provides in competition with other carriers. Lightpath Brief, pp. 4-7.

b. HFC Costs

Lightpath claims that the record of this proceeding indicates that SNET's cost studies are based upon an improper allocation of the costs associated with the deployment of its HFC facilities. Lightpath notes that the Department has previously rejected SNET's proposed allocation methodology in Docket No. 95-03-10 and directed SNET to review its costing allocation methodology. Lightpath claims that the Department fully considered SNET's arguments in that docket and properly determined that SNET's HFC allocation methodology had the effect of burdening local telephone ratepayers with a significant portion of the costs associated with SNET's dialtone services. Lightpath claims that no different conclusion is merited here. Lightpath Brief, pp. 8 and 9; Lightpath Brief, pp. 4-6.

c. Depreciation

Lightpath further claims that SNET's cost studies incorporate accelerated depreciation parameters that inflate SNET's alleged costs for unbundled network elements. While noting that the cost studies furnished to support the proposed rates in this proceeding employ the same depreciation assumptions proposed by SNET in Docket No. 94-10-03. Lightpath states that the use of these assumptions improperly increases SNET's reported costs for unbundled elements and passes those costs onto its competitors. Lightpath contends, therefore, that if SNET does not raise its retail prices to reflect the increased depreciation, competitors will be forced to absorb SNET's inflated costs in order to offer retail service at competitive prices. Likewise, if SNET does increase its retail rates to reflect its higher depreciation parameters, competitors will be prevented from offering its retail customers the lowest possible rates because SNET's higher levels of depreciation will have been built into the CLECs cost structures. According to Lightpath, the effect this depreciation treatment would have on rates is significant. Lightpath Brief, pp. 8-10; Lightpath Reply Brief, 3 and 4.

d. Recommendations

In light of the above, Lightpath recommends that the Department require SNET to refile its tariffs within thirty days following the issuance of the Final Decision in this proceeding. Lightpath states that the revised tariffs should be based on cost data that comport with the methodologies approved by the Department, and include at a minimum, SNET's sunk

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costs. The tariffs should also comply with the definition of long-run incremental costs, and incorporate the cost allocation principles approved by the Department in Docket No. 95-03-10. Lightpath also recommends that SNET's cost data be revised to incorporate the depreciation parameters ultimately adopted by the Department in its Decision in Docket No. 94-10-03. Lightpath Brief, p. 10.

3. Universal Service Funding

No Immediate Need for USF

Lightpath states that SNET's USF proposal is not the panacea that will equalize competition in Connecticut. Rather, it will exacerbate the competitive disadvantages that the CLECs will suffer under the proposed tariffs. According to Lightpath, SNET has not shown that its basic residential service is priced below cost. Lightpath argues that the adoption of SNET's USF supported by flawed cost studies and pricing proposals, would run the risk of creating a regulatory mechanism that inhibits rather than promotes local competition. Lightpath argues that SNET has failed to demonstrate any immediate threat to current subsidy mechanisms. Lightpath opines that it would, therefore, be premature for the Department to conclude that the prospect of subsidy reductions, which at present are almost entirely speculative, evince an immediate need for universal service funding. Lightpath Comments, pp. 11-13; Lightpath Brief, pp. 21-25; Lightpath Reply Brief, pp. 9 and 10.

b. Failures of SNET's USF Proposal

Lightpath maintains that SNET's funding mechanism for its USF improperly ties subsidies to SNET's rate structure and that both the use of SNET's existing rate structure and the use of its costs to establish the fund would place CLECs at a permanent disadvantage to SNET in the local exchange marketplace. Lightpath further contends that the use of SNET's geographically averaged rates to calculate the funding requirement skews the amount needed for the fund and forces CLECs to adopt SNET's geographic rate structure for fund disbursements. Lightpath notes that even though SNET would permit CLECs to demonstrate their costs of providing service in order to establish different USF disbursements. CLECs still would be forced to base those costs on SNET-defined geographic service areas. According to Lightpath. SNET's proposal is blatantly unfair. Lightpath Brief, pp. 28-30.

Noting SNET's proposal in Docket No. 95-03-01 to freeze residential and business rates for five years, Lightpath argues that such a freeze would lock in the universal service funding requirement, providing SNET with no incentive to be efficient, because it could make up the difference from its competitors' contributions to the USF. Lightpath contends that the windfall to SNET is even greater because its current business rates and toll access charges include contribution to fund residential rates. Under SNET's proposal to freeze its business rates, SNET will continue to extract contribution from other revenue streams and have access to the USF. Lightpath concludes that this action would ultimately force Connecticut consumers to pay more for telephone service than they otherwise should, and would thwart the CLECs' ability to compete or even enter the market during the five year freeze period.

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Additionally, Lightpath argues that contrary to SNET's claims, its proposed USF is designed to make SNET whole against competitive losses during the transition to an effective competitive environment. Lightpath posits that it would be contrary to the requirements of Conn. Gen. Stat. § 16-247k(b) to allow SNET access to a universal service fund if SNET is granted its request for alternative regulation. The Lightpath claims that if SNET is permitted to operate under alternative regulation and have access to a universal service fund, SNET would be granted a windfall in excessive earnings. Lightpath also claims that SNET's proposal would allow SNET to freeze its business rates, continue to extract contribution from other revenue streams, and have access to the USF. Lightpath Brief, pp. 25-28; Lightpath Reply Brief, pp. 10 and 11.

Lightpath further believes that SNET's proposal to require carriers to pay a percentage of all telecommunications revenues into the USF is faulty. In particular, Lightpath maintains that SNET's proposal would in effect place a tax on revenues eligible for universal service funding. Lightpath argues that SNET's proposal would require carriers that have proportionately more subsidized services than other carriers to pay a greater portion of their contribution to universal service from their non-subsidized services. Lightpath claims that for CLECs that will not have access to the same degree of non-subsidized services as SNET, this type of funding requirement would create a competitive imbalance.

Lightpath contends that SNET's USF proposal does not correlate eligibility for withdrawal of funds with the provision of service to high-cost customers. Lightpath states that while SNET would base the eligibility for universal service funding on the number of local residential lines served in Rural, Suburban, and Urban areas. SNET's proposal does not provide details on how it has divided these areas, nor why carriers who provide service in these areas would receive a subsidy for all customers in the areas instead of only for those customers who are high cost. Lightpath contends that SNET's proposal would limit the CLECs to receiving subsidies for services offered consistent with SNET's designated local calling areas. According to Lightpath, this will preclude CLECs from expanding their basic service areas and remaining eligible to receive disbursements from the fund for their residential customers that do not fall within SNET's local service definition. Lightpath claims this to be anticompetitive and directly conflicts with the Department's stated goals for competition. Lightpath also claims that SNET's proposal would inevitably lump together high cost customers with those customers who do not cost as much to serve. Lightpath states that SNET's proposal would enable SNET to receive universal service funding generated from all telecommunications providers in the state for numerous subscribers who are not high-cost customers.

Lightpath further argues that SNET's proposed recovery cap would exacerbate the competitive disparities already inherent in its universal service proposal, embed SNET's own inefficiencies, and further prevent CLECs from recouping

SNET disagrees and argues that the legislation enacting Public Act 94-83 speaks to both an alternative regulation mechanism and a USF. SNET maintains that the legislation does not state that these two provisions are mutually exclusive and its alternative regulation plan should have no bearing on whether a USF should be established. Reply Brief, pp. 37 and 38.

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their legitimate costs of providing competitive service. Lightpath posits that the cap would also create an incentive for . SNET to direct its less profitable customers to the CLECs rather than serving those customers itself.

c. Requirements Of Any Universal Service Fund

That May Be Established

Lightpath contends, however, that if the Department finds that a USF is necessary, the fund should be carefully crafted to ensure competitive neutrality and minimize the costs imposed upon carriers and ratepayers. Lightpath recommends that the Department examine the true costs for subscription to targeted high-cost services and, after establishing a benchmark rate for those services based on TSLRIC cost studies, calculate the funding requirement by multiplying how many subscribers would be eligible for the service by the difference between the benchmark rate and the cost of providing the service. Lightpath states that any carrier wanting to provide such services also should be required to demonstrate that the cost of providing these services is actually greater than the benchmark rate. According to Lightpath, such an approach would provide incentives for all carriers to be efficient and to be rewarded equitably for providing high-cost service. Lightpath Comments, pp. 13-17; Lightpath Brief, p. 36.

In furtherance of these objectives, Lightpath states that the Department must ensure that: (1) the total size of the fund is directly related to an assessment of subscriber need, i.e., the ability to pay for basic service; (2) payments into the fund are based on revenues that exclude services to be subsidized by the fund and that are subject to a minimum threshold; (3) only carriers providing service to rural/high-cost subscribers are eligible to receive disbursements from the fund upon a cost-based showing of need; and (4) the fund is administered by a neutral third-party. Lightpath Brief, p. 37.

D. MCI TELECOMMUNICATIONS CORPORATION (MCI)

1. Proposed Rates

MCI claims that SNET's proposed pricing for unbundled loops and resale will stifle competition and frustrate the Department's goals. MCI maintains that viable unbundling and resale has two components, that is, they must be technically available via tariffs and they must be economically available. While MCI opines that it has no argument with SNET regarding the first component. MCI is concerned with SNET's proposed rates for its unbundled elements and resale product. MCI contends that having SNET make unbundled loops or a resale product available in a tariff is meaningless unless those services are offered at commercially viable rates. MCI argues that viable unbundled loops and resale are the key to effectuating the Department's telecommunications goals. MCI also argues that unbundled loops and resale that are not viable will limit the spread of competition in the state. Accordingly, MCI concludes that viable unbundled loops and resale are not only consistent with the Department's goals, but in practice are necessary to effectuate them.

MCI claims that SNET's proposed resale offering is not commercially viable since new entrants will be placed in a price squeeze if they were to purchase this service out of the proposed tariff. MCI opines that SNET's proposed resale

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rates, when compared to SNET's existing flat-rate residential local exchange service rates make a mockery of the Department's efforts to spread competition to parts of the state that will not be served in the near future by facilities based carriers. MCI claims that SNET has included an excessive mark-up in its proposed wholesale local exchange service rates, including its proposed nonrecurring charges. Accordingly, MCI recommends that the Department set wholesale local exchange service rates equal to the applicable retail rate less the avoided costs associated with providing service to a reseller rather than a retailer. MCI maintains that this approach eliminates any price squeeze because an equally efficient competitor will be able to match SNET's retail rates and earn a profit. MCI Comments, pp. 3-6, 9 and 10; Murray Testimony, pp. 5, 32-35; MCI Brief, pp. 5-14...

MCI maintains that overall, SNET's unbundled loop TSLRIC estimates in the four density zones do not appear to be reasonable. MCI opines that SNET's reported costs for unbundled loops are out of line with costs from other jurisdictions. Additionally, MCI maintains that the combination of the accelerated depreciation that SNET has assumed in its cost studies and the allocation of excessive HFC costs to voice-grade telephony services may be the cause of the problem. Murray Testimony, pp. 3 and 4, 9-23; MCI Brief, pp. 14-25.

MCI further argues that SNET's proposed unbundled loops rates are greatly in excess of their respective costs. For example, SNET's proposed loop rates exceed the costs of those loops from between 17 to 22 percent, depending on the density. MCI states that SNET has proposed a range of rates and the maximum rates that SNET proposes for voice grade unbundled loops exceed the underlying costs by over 30%. According to MCI, these mark-ups are completely unjustified and are not supported by any analysis in SNET's testimony.

MCI further contends that SNET's proposed prices for unbundled loops potentially place competitors in a price squeeze. MCI maintains that for residential customers, SNET's proposed rate for unbundled loops in many instances exceeds the rate SNET currently charges its end users for the unbundled product. MCI states that given SNET's unbundled loop pricing, there is no viable means for new entrants to serve residential customers in these circumstances. Similarly, MCI believes that other problems with SNET's proposed recurring rates and nonrecurring charges for unbundled loops exists. For example, MCI claims that SNET's proposed rates contain an inappropriate markup over service specific TSLRIC. This markup contributes to the price squeeze problem and undermines competition. MCI concludes that SNET's proposed pricing of unbundled loops imposes a significant barrier to entry into the residential market in many areas of the state. MCI Comments, pp. 6-9; Murray Testimony, pp. 4 and 5; 23-27; MCI Brief, pp. 25-28.

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2. Cost of Service Studies

a. Long Run

MCI argues that SNET has failed to adhere to the economic definition of long run in conducting its studies. Instead, according to MCI, SNET's studies cover a mere three year period — the very same period in which SNET is intending to build out its I-SNET network. In MCI's view, the result of SNET's failure to conduct actual long-run studies is that the studies have likely produced TSLRIC estimates that overstate the economic costs of basic local exchange service. MCI Brief, pp. 16-17. At the same time, MCI argues that the cost studies may actually significantly understate SNET's costs of providing competitive services that SNET may provide in competition with other carriers, by failing to include certain fixed, one-time start-up costs in its TSLRIC analysis. According to MCI, SNET's cost studies only include those investments for which capacity will be exhausted at some future point. MCI contends that this approach specifically contravenes the Department's June 15, 1995 Decision in Docket No. 94-10-01 and could result in excessively low price floors for services that SNET provides in competition with other carriers. MCI Brief, pp. 16-19.

b. HFC Costs

MCI states that some of SNET's service-level incremental cost studies appear to allocate joint costs in a manner that is contrary to the principle of cost causation (i.e., SNET has allocated certain shared costs to individual services). For example, SNET allocates 50% of the joint costs of its HFC network to unbundled loop services even though those costs are not caused by the decision to offer unbundled loops and cannot be avoided if SNET ceases to provide unbundled loops over its HFC architecture. MCI argues that SNET's proposed treatment of its HFC costs appears to be the same approach that the Department rejected in its June 30, 1995 Decision in Docket No. 95-03-01. In MCI's view, just as SNET was not permitted to pass the costs of its broadband ventures onto its monopoly telephony ratepayers. SNET should not be allowed to pass these costs onto its dependent competitors and in effect force those new entrants to subsidize SNET's video ventures. MCI Brief, pp. 19-23.

c. Depreciation

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SNET claims that it is ironic that MCI criticizes SNET for not including start-up costs in its cost studies while at the same time claiming that its proposed rates are excessive. SNET states that if it were ordered to include its start-up costs for unbundling and wholesale offerings, SNET's costs of offering these services would increase, with the obvious result being that SNET would have to increase the services' proposed rates. SNET Reply Brief, pp. 19 and 20.

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According to MCI, another method that SNET has used to inflate its cost studies is to calculate its costs using a much higher level of depreciation that has been previously adopted by the Department. MCI argues that the effect of including this higher depreciation rate is an increase in SNET's reported costs. Based on the record, MCI states that the use of prescribed depreciation rates would reduce the total costs of services by approximately 4%. MCI Brief, p. 24.

3. Contribution

MCI proposes that, in order to rectify the many problems with SNET's cost studies, the Department take the following steps: (1) require SNET to recalculate its TSLRIC costs in a manner that eliminates all errors and refile its corrected cost studies with the Department; (2) establish a principle that the rates of unbundled loops - both recurring and nonrecurring - should be set exactly equal to SNET's TSLRIC; and (3) eliminate the co-location requirement in SNET's unbundled loop tariff and instead require SNET to offer other mutually agreeable interconnection arrangements. For the interim, however, MCl states that potential competitors should not be penalized by permitting SNET to continue to delay competitive entry while it conducts new cost studies and proposed new tariffs. Accordingly, MCl recommends that the Department set interim rates for unbundled loops that are equal to the marginal costs SNET reported in its August 18, 1995 cost studies for each density zone, adjusted for the excessive depreciation rates, until final rates can be adopted, based on corrected cost studies. MCl Brief, p. 29. This would effectively provide the interested participants prices for services they deem needed and necessary while effectively denying SNET the exorbitant levels of contribution offered by SNET's proposed prices.

4. Universal Service Funding

MCI states that SNET proposes to solve the price squeeze problem through a universal service funding mechanism. MCI states, however, that should the Department set wholesale local exchange rates equal to retail rates minus the cost savings associated with provision of service at the wholesale level, there would be no need for a universal service funding mechanism because there would be no price squeeze. According to MCI, SNET's universal service proposal is premature and unnecessary. MCI Brief, pp. 29-30.

MCI argues, however, that if after proper cost studies are filed the Department determines that residential service is receiving a subsidy, universal service should be reformed in the following manner: (1) the economic cost of basic universal service should be determined; (2) funding for any subsidy for universal service should be generated from all telecommunications providers in a competitively neutral manner; (3) universal service subsidies should be available to the subscribers of any local exchange provider through a virtual voucher mechanism; and (4) any other rate of the incumbent provider that is above cost cannot be sustained on the grounds that the rate is necessary to preserve universal service. According to MCI, pursuant to its proposal, the amount of subsidy is explicitly determined, the subsidy is delinked from SNET's embedded costs, and the subsidy is made available to all providers of residential basic exchange service. MCI Brief, pp. 30-31.

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MCI states that pursuant to its proposal, for each dollar of universal service support collected through the new fund, rates for services such as switched access could be reduced so that one dollar less of above-cost contribution could be recovered from these services. MCI opines that this approach would: eliminate the double-dip that plagues SNET's USF proposal and keep residential service affordable, while promoting competition in an evenhanded manner; minimize the size of the universal subsidy and thereby reduce the upward pressure on rates for the telecommunications services; encourage all service providers to become more efficient; and ultimately reduce rates for all customers. Murray Testimony, pp. 35-42; MCI Brief, pp. 29-33.

5. Mutual Compensation

MCI opposes the OCC proposal to impose a surcharge on interconnection to contribute to recovering the cost of the local loop. MCI states that OCC's proposal violates the economic principle of cost causation. MCI argues that any surcharge that is added on top of the cost of the local interconnection rate becomes part of the irreducible price floor below which a new entrant cannot price its services. MCI maintains that as a result, end users would not be able to receive the full benefits of lower prices for service that they would otherwise reap. Additionally, MCI argues against the surcharge because adding a surcharge onto the cost for termination of traffic for the purpose of recovering purported unrecovered loop costs creates economic distortions. MCI states that placing a percentage for contribution to the local loop on top of the TSLRIC cost for interconnection is not the correct way to recover any unrecovered costs of the local loop. Accordingly, MCI recommends that the Department reject the OCC proposal, and instead, order SNET to perform properly calculated cost studies. MCI opines that if it is determined that local service is not recovering its costs, the Department should then establish a competitively neutral universal service fund, as proposed by MCI, to contribute to the subsidies for the loop. MCI Reply Brief, pp. 3-7.

E. MFS Intelenet of Connecticut, Inc. (MFSI)

1. Proposed Rates

MFSI contends in this proceeding that SNET's pricing structure for unbundled network elements will create an untenable price squeeze for facilities-based carriers and resellers seeking to enter the local exchange service market in Connecticut.

If the Department were to approve the recommended rates and charges, MFSI contends that SNET will effectively foreclose local exchange competition before it even begins. MFSI states that through Public Act 94-83's requirement that SNET unbundle its local exchange network, the legislature clearly recognized that access to unbundled loops is vital if CLECs are to be able to meet their service obligations. MFSI also states that SNET has priced its unbundled loops far in excess of its end user rates for both flat rated and message rate service, virtually assuring that CLECs will be unable to economically enter the local exchange market at all.

MFSI opines that a CLEC must combine an unbundled loop with its own port and other network elements in order to offer basic local exchange service that is functionally equivalent to services offered by an incumbent LEC. MFSI

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contends that the availability of unbundled loops will do nothing to foster the development of competition unless they are priced in a manner that allows a CLEC to offer end users a service priced at or below the rate charged by a respective incumbent LEC. MFSI also contends that in those cases where the cost to the CLEC of the unbundled loop alone is greater than the incumbent LEC's basic local exchange retail rate, the CLEC cannot possibly offer end users a competitive price for its service. According to MFSI, SNET's proposed pricing structure for unbundled network elements appears deliberately designed to achieve precisely that result. MFSI claims that SNET's proposed unbundled loop and port rates are excessive even as an interim rate.

MFSI also claims that the proposed rates have been marked up above their associated marginal costs in an inappropriate manner, and are not uniform across the four SNET cost/density zones. MFSI states that SNET has not offered any evidence justifying such non-uniform mark ups or showing that they would be economically efficient. Additionally, as discussed below, SNET's proposed rates fail an imputation test, in that the rates in the aggregate recover substantially more revenues from the basic access services used by SNET's subscribers than it currently collects from other contributing services.

MFSI recommends that rates and charges for unbundled loops be set at levels that reflect SNET's economic costs of providing the service and also include an appropriate component to recover SNET's common costs. MFSI opines that the issue is not whether common costs as such might be recoverable in a competitive environment, but whether a regulatory policy allowing a dominant incumbent to include common costs in charges imposed on its competitors gives SNET an incentive to over-state or mis-allocate its common costs. MFSI states that the unbundled loop rates should not be priced under a make-whole philosophy. According to MFSI, while SNET might be allowed to recover an element of its common costs from its own prices, and to recover true social costs or universal service costs from an appropriate funding mechanism, SNET should not be afforded the ability to recover lost profits because to so provide would be antithetical to the purposes of introducing competition.

In comparing SNET's existing retail residential local exchange rates with its proposed unbundled loop rates. MFSI claims that a CLEC would be forced to pay SNET between \$5.00 and \$19.50 more per month for an unbundled loop than SNET currently charges its residential customers for flat rated service and between \$10.00 and almost \$23.00 more per month for its residential customers subscribing to message service. MFSI claims that before even taking into account the CLEC's own costs for the additional functionalities necessary to provide basic local exchange service (i.e., a port and usage). SNET has priced the new entrant out of the market. MFSI further claims that the price squeeze becomes even more extreme when interwire center transport to the CLECs' colocated space is factored into the equation, because CLECs initially will be colocated at relatively few central offices, and will have to purchase interwire center transport in conjunction with their use of unbundled loops.

While SNET has proposed unbundled loop rates based on minimum and maximum charges, MFSI states that a single rate for each element should be tariffed at this time. MFSI also states that these components are essential inputs to competitive entrants' service offering, and flexible pricing of such may never be appropriate until competition is effectively established. MFSI opines that flexible pricing would significantly increase the complexity of an entrant's make-buy decision regarding subscriber plant and that SNET's proposed price band of \$3.00 per month represents a potential spread of 25%, representing a fairly large and uncontrollable variable to a CLEC.

MFSI argues that if forced to pay SNET's proposed prices, a CLEC (even one that is equally as efficient as SNET) cannot possibly match SNET's retail prices for basic local exchange service without losing substantial amounts of

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money. MFSI also argues that the legislature, by requiring SNET to unbundle its bottleneck services, sought to remove a barrier to competitive entry. MFSI posits that approval of SNET's proposed pricing structure would render the legislature's efforts to foster the development of local exchange competition an exercise in futility. Additionally, MFSI posits that one primary purpose in requiring incumbent LECs to offer unbundled loops is to preclude the incumbents from artificially increasing their competitors' costs by forcing them to acquire and pay for network components and functionalities that they do not need. According to MFSI, by pricing unbundled loops higher than the bundled dial tone line, SNET defeats this purpose.

MFS1 maintains that the Department must ensure that SNET's rates pass an imputation test. MFS1 states that although Conn. Gen. Stat. § 16-247b specifically addresses the pricing of competitive services using unbundled monopoly elements, nothing in the statute precludes the Department from applying generally accepted imputation principles to the proposed services even through local exchange service has not yet been classified as competitive. MFS1 also expresses its concern that any unwillingness to require imputation may impede entry so that local exchange service will never become competitive. MFS1 further states that the imputation standard would require SNET to establish prices for the unbundled network elements (loop, port and cross-connect) such that the sum of the prices for the unbundled dial tone line and the ratio of price to TSLRIC for each element and the bundled dialtone line is the same. Comments, pp. 2-7; Ball Testimony, pp. 4-9; Montgomery September 8, 1995 Testimony, pp. 4-7, 18 and 19; MFS1 Brief, pp. 10-20; MFS1 Reply Brief, p. 8.

2. Cost of Service Studies

MFSI maintains that the Department must require SNET to provide additional cost support if its cost studies are to be taken seriously in setting wholesale and unbundled service rates and charges. According to MFSI, SNET does not disclose in its submissions the basis upon which it determined the amounts of contribution it seeks to recover from the sale of unbundled loops, ports and related services, making it virtually impossible for anyone to determine whether joint and common costs are being shared fairly by all users. MFSI claims that SNET has also failed to provide any cost support for certain components and services necessary to allow a competitive local exchange carrier to utilize unbundled loops and ports. For example, these services include the monthly charges for cross connect termination and interwire center transport as well as the nonrecurring charges for new service, connection and disconnection and for changing a loop or port from ground start to loop start. MFSI notes the lack of any justification for certain expenses included in the unbundled loop cost, such as pole attachment costs and investments and expenses related to annual charge factors that must be used to translate its estimated marginal loop, usage or other investments into annual costs and then into monthly costs. MFSI comments that SNET has not documented in supporting materials the avoided cost accrued by SNET when it sells service to a reseller. Similarly, MFSI does not believe that SNET has included in its supporting materials the expected costs from increased customer churn. MFSI opines that what is needed to evaluate each loop study are the actual values and calculations used to develop the inputs for SNET's studies. In summary, MFSI concludes that SNET has not provided any MICRA results for any of its recent loop studies, retail, wholesale or unbundled, and its study documentation does not provide for the evaluation of its cost studies.

MFSI contends that SNET further failed to comply with requirements in the Department's Decision in Docket No. 94-10-02 that the level of contribution above TSLRIC for each tariffed service be clearly segregated. MFSI claims that SNET's proposal is out of line with rates and costs for unbundled loops in other states, and that they are far too high for a CLEC to compete in the real world market. MFSI recommends that the Department require SNET to supplement

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its cost study to ensure that all participants have an adequate opportunity to scrutinize the basis for SNET's proposed unbundled service rates. MFSI Comments, p. 7; Ball Testimony, pp. 4, 10; Montgomery September 8, 1995 Testimony, pp. 3 and 4, 10-12; MFSI Brief, pp. 3 and 4, 6-10; MFSI Reply Brief, pp. 1-3.

Regarding SNET's deployment of the HFC network, MFSI states that the relevant issues include the basic allocation of joint costs between telephony and VDT/other video services, and SNET's inclusion of joint HFC cost in its studies of telephone service loops (retail, wholesale and unbundled). MFSI also states that the HFC joint cost essentially offsets the reduced incremental investment identified in the new SNET loop study from the blend of copper/fiber and HFC plant architecture, which appears to be merely plugged into the maintenance study. MFSI concludes that the joint HFC costs should not be allowed in CLEC rates at this time. Montgomery September 8, 1995 Testimony, pp. 14 and 15; Montgomery October 10, 1995 Testimony, p. 5; MFSI Brief, pp. 5 and 6; MFSI Reply Brief, pp. 3-6.

MFSI also takes issue with SNET's cost studies for various other reasons. For example, MFSI maintains that SNET's August 18, 1995 cost study changes and additions are not adequately explained even though the principal changes affect the forecasted demand for the unbundled loop and wholesale exchange services. MFSI notes that customer demand changes over the life of the study, but SNET has not provided sufficient information indicating the type of market forces that would lead to a suppression of demand for SNET's CLEC services in the early years of the forecast or those factors that create a large upsurge in demand at the end of the study period. MFSI also suggests that SNET's demand assumptions directly affect estimates of the contribution that it would derive from the proposed rates based upon three year present-worth calculations which SNET estimates at 14%. While MFSI has calculated a direct contribution of no more than 15%, MFSI opines that SNET should describe in detail what sort of changes in its market forecast assumptions were reflected in the demand changes in the August 18, 1995 cost study filing.

MFSI also opines that SNET must better demonstrate that its maintenance units calculation recover no more than the booked maintenance expenses associated with the various categories of outside plant. Additionally, MFSI claims that SNET's studies include a small cost component for an imputed pole attachment expense. MFSI indicates that this component adds less than \$0.03 per month on average to SNET's retail, wholesale and unbundled loop rates; but nevertheless MFSI recommends that it not be allowed. According to MFSI, the pole attachment figure is based upon revenues that SNET receives, not costs it incurs. MFSI claims that SNET's cost studies assume that it will not need to incur additional pole or conduit expenses during the period of the marginal cost studies. MFSI posits that if imputation of this cost is required to determine whether SNET's rates for any services create a price squeeze on market entrants, the value should be separately stated. MFSI also posits that it should not be part of the marginal cost study. Montgomery September 8, 1995 Testimony, pp. 15-17.

3. Contribution

MFSI submits that the Department's instructions in Docket No. 94-07-03 require that CLECs offer service to all residential and business customers at the end of a three year trial period in those service areas selected by the prospective providers. In the opinion of MFSI, that requirement enhances the CLECs' claim for reasonably priced unbundled network elements from SNET. MFSI maintains that in order to comply with the Department's directive to provide service in some or all service areas, it will be necessary for a CLEC to purchase unbundled loops from SNET. MFSI also maintains that because these facilities are essential facilities and competition will only develop with CLEC entry, contribution above TSLRIC must be kept to a minimum. MFSI suggests that the Department adopt a maximum

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percentage of contribution that SNET can receive in its rates for unbundled facilities. MFSI opines that competition coupled with the Department's requirement of service in areas in which CLEC provision of loops would be highly uneconomical should not operate as a vehicle for SNET to earn windfall profits or to increase its profit margins. Therefore, MFSI suggests that under no circumstances should SNET be permitted to earn a larger percentage of contribution by unbundling these facilities than it does at present by using these facilities to offer retail service.

4. Universal Service Funding

MFSI argues that SNET's USF proposal would in reality not only protect SNET from revenue losses that would reasonably be expected to flow from the advent of competition, but also confer upon it an unwarranted windfall. MFSI Comments, p. 1. MFSI claims that SNET's proposed USF will unfairly advantage SNET at the expense of CLECs, and when closely examined it is clear that SNET's USF proposal is not a mechanism to ensure the affordability of basic local exchange service to virtually every citizen of the state. Rather, it is a mechanism to provide SNET additional advantage in its competition with CLECs. MFSI argues that SNET has failed to prove a need for its USF at this time and SNET's cost studies are so filled with errors that they cannot be relied upon as a basis to measure the need for a USF. Additionally, MFSI argues that there are no cost studies upon which the Department could conclude that supplemental funding is necessary to preserve universal service, or that the mechanisms that the Department has already put into place in Docket Nos. 94-07-03, 94-07-08, and 94-07-09 are inadequate to serve this purpose. MFSI posits that SNET is seeking to stampede the Department into prematurely approving what MFSI believes would be the nation's first USF plan without foundation. MFSI Brief, pp. 20-22; MFSI Reply Brief, p. 9.

MFSI recommends that any universal service funding mechanism be limited to residential customers and have some causal foundation in costs of providing services to residential customers in areas that qualify for funding. MFSI states that SNET's proposal basically satisfies these criteria, particularly if an entrant is allowed to participate in the funding mechanism using SNET's costs as its own. While MFSI agrees with SNET that the funding mechanism should be competitively neutral, it does not agree that SNET's calculation of the size of the potential fund fully satisfies this goal. According to MFSI, competitively neutral means both that all providers are treated in the same way vis-à-vis each other, and that the result of the USF mechanism accounts for the way any individual supplier would evaluate whether or not to serve customers in a particular area, absent any public policy requirement that they do so. MFSI claims that SNET's proposal is not competitively neutral because it incorrectly assumes that a provider (SNET or another company) would decide whether to serve customers in any area based solely on whether it could recover 100% of the basic access cost from that customer. Montgomery September 8, 1995 Testimony, pp. 26 and 27.

MFSI recommends that SNET's USF proposal be rejected. MFSI states that although the USF is theoretically designed to ensure the continued availability of affordable residential telecommunications service, in reality SNET's proposed fund constitutes an additional source of revenue for SNET. MFSI also states that through its USF proposal, SNET will be able to recover the difference between its cost of providing basic service and its residential basic service revenues both from its existing sources of contribution and from a tax imposed on all telecommunications providers in Connecticut. MFSI claims that instead of eliminating the need for cross subsidies, SNET's proposal creates an additional subsidy that has the potential to allow SNET to recover its

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incurred costs twice. MFSI also claims that because SNET's wholesale service and unbundled loop and port rates include contribution, which its basic exchange service rates allegedly do not, SNET will actually come out ahead if it loses a subscriber to a competitive provider.

MFSI argues that by guaranteeing the difference between SNET's costs and revenues, the USF provides a disincentive for SNET to operate in the most cost efficient manner. MFSI also argues that it would create a disincentive for competitive carriers to price their local exchange services below SNET's retail rates. According to MFSI, a more efficient provider would be penalized for beating SNET's end user price even if the margin between its costs and retail rates was equivalent to SNET's. MFSI states that the true rationale for SNET's USF proposal is to shield it from the effects of a competitive market. MFSI also states that rather than preserving affordable residential basic local exchange service, SNET's proposal will deny residential ratepayers the benefits of lower prices and the more efficient service that a CLEC may be able to provide.

MFSI recommends that the Department not accept SNET's assertion that its residential rates are below cost and in need of a subsidy at face value. According to MFSI, prior to considering SNET's request to establish a USF, the Department must require SNET to perform cost studies that properly allocate local loop costs among all users. Additionally, MFSI contends that to the extent that SNET can demonstrate that its existing service to certain geographic areas or classes of customer is in fact subsidized, the Department must determine whether the subsidy should be continued in whole or in part. MFSI posits that if a subsidy is to be continued, the Department must determine how it can be funded in an equitable, nondiscriminatory and competitively neutral manner. MFSI also posits that the objective of a USF should be to provide subsidies to those individual customers who would not otherwise be able to afford basic telephone service and not subsidize all residential customers or telephone companies as SNET suggests. In order to achieve this objective, MFSI suggests that there be a specific determination of the need for a subsidy, a determination of the group to which the subsidy is targeted and a quantification of the amount of the subsidy.

MFSI states that SNET's apparent attempt to use universal service funding to underwrite anticipated reductions in revenue related to the entry of competitive local service providers subverts the public interest goal of preserving affordable basic local exchange service. In noting that SNET's proposed universal service funding mechanism has several valid features, MFSI opines that the proposal misses the essential policy issue of universal service. i.e., whether SNET or another provider will be willing to make available telecommunications services to residential customers in certain areas of the state absent a regulatory obligation to provide those services. Accordingly, MFSI recommends that SNET's proposed USF be rejected. MFSI Comments, pp. 8-11; Ball Testimony, p. 4; Montgomery September 8, 1995 Testimony, p. 7; MFSI Brief, pp. 24-26.

MFSI argues that SNET's formula for collecting and distributing funds is purposefully biased in SNET's favor, and would provide inadequate incentives to prospective participants. According to MFSI, under SNET's formula, when a CLEC pays SNET for wholesale service or unbundled facilities and then provides service to an end user, the revenues received by the CLEC from the end user would be counted in determining the CLEC's universal service funding obligation. MFSI claims that this formula is biased in SNET's favor because, although the CLEC actually loses money on the transaction by virtue of paying SNET more than the retail price for SNET's wholesale service, the CLEC is obligated to contribute to the fund. MFSI claims that this does not comply with the statutory requirement that the fund collection be equitable. MFSI posits that the solution is to

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impose the tax directly upon end users or to base contributions to the USF upon the value added by each carrier.

5. Mutual Compensation

MFSI argues that the rate for mutual compensation should not include contribution. MFSI claims that SNET's cost of service studies are deficient and fail to prove that the local loop is priced below cost. MFSI recommends therefore, that no mark-up to cover contribution for mutual compensation is warranted at this time.

MFSI states that even if the Department were to find SNET's cost studies to be valid and reliable, such studies do not support the award of contribution in mutual compensation. MFSI also states that should a subsidy be required. SNET will continue to have available to its sources of subsidy that make the payment of contribution in mutual compensation unnecessary. MFSI argues that the available sources of contribution to the local loop include existing sources, such as access, toll, vertical, business and residential (in Metropolitan areas) revenues, as well as the Subscriber Line and CCL charges. MFSI also argues that under SNET's proposal, new sources of subsidy have been identified such as the contribution from its sale of unbundled facilities and wholesale services to CLECs and the USF. MFSI contends that inclusion of contribution in mutual compensation would result in double recovery of any alleged losses that SNET may suffer in providing the local loop, and therefore, recommends that the Department, at least for the present time, order that no contribution be included in mutual compensation. MFSI Brief, pp. 29 and 30; MFSI Reply Brief, pp. 11 and 12.

F. New England Cable Television Association, Inc. (NECTA)

NECTA has identified several deficiencies with SNET's June 15, 1995 and July 5, 1995 proposals. NECTA states that these deficiencies are more than sufficient to justify suspension and investigation of SNET's unbundling and resale tariffs and include the following:

1. Proposed Rates

NECTA contends that SNET's proposal to establish minimum and maximum rates in both the unbundled loop and wholesale tariffs on the pretext that such discretionary latitude is necessary to protect itself against uncertainties in the market is not warranted because SNET has made no showing as to how such uncertainties directly affect the cost of providing the services in question in this proceeding. NECTA Brief, pp. 20-22. NECTA also claims that granting SNET's rate banding proposal would provide SNET with an excessive degree of pricing flexibility for the services that could be used as a means to limit competition. In the opinion of NECTA, pricing flexibility of this type for unbundled loop elements is unwarranted and should be rejected. NECTA states that if SNET had some empirical evidence to indicate that its TSLRIC, in fact, varies with different demand assumptions or other market conditions, SNET is obligated to have presented such information in this proceeding. In particular, SNET should have presented alternative sets of TSLRIC results based on worst and best case scenarios of anticipated market conditions. Rather, SNET has simply presented one set of TSLRIC results with no showing of how those cost levels and rate/cost relationships would

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vary if market or demand conditions were to vary from those assumed in the cost study. NECTA posits that SNET has failed to show that the minimum and maximum rates proposed bear any reasonable relationship to underlying costs.

NECTA also posits that SNET's banded pricing proposal would fail to constrain its prices to a reasonable relationship to cost. NECTA maintains that SNET's proposal would permit SNET to engage in strategic anticompetitive pricing of these essential inputs to their competitors' local service offerings and impede the development of effective competition for local services in the state. According to NECTA, competition will be impeded because banded rates afford SNET an unreasonable amount of discretion in the pricing of loop and port elements.

NECTA contends that SNET's proposed rates include markups which are applied in discriminatory fashion to unbundled loop services in different exchange zones. For example, NECTA states that the markup for Metro and Urban customers is, on a percentage basis, between two and three times the markup for Suburban and Rural customers. NECTA also states that allowing SNET to apply much higher markups to unbundled rates in the Metro and Urban zones would artificially increase the costs faced by CLECs interested in competing in those areas. NECTA maintains that there is no justification given in the tariffs, cost studies or accompanying testimony which substantiates such discriminatory pricing practices, and therefore, the proposed rates should not be accepted as filed. NECTA also maintains that allowing SNET to manipulate rate/cost relationships would arbitrarily increase the cost faced by CLECs interested in competing in those areas. Additionally, NECTA maintains that under these conditions, a CLEC would have less incentive to make use of the unbundled services tariff, even in those cases where it might otherwise be economically most efficient to do so. Therefore, NECTA recommends that SNET be required to refile immediately unbundled loop and port rates with uniform markups so as not to arbitrarily discourage use of these offerings by CLECs.

NECTA contends that SNET's proposal to implement rate de-averaging for unbundled loop and wholesale local service offerings produces rates that bear unreasonable relationships to SNET's comparable retail rates and would create anticompetitive price squeezes for any CLEC attempting to service residential customers. PNECTA states that SNET has not adequately justified its zone-based deaveraging proposal. NECTA also states that in reality, SNET's attempt to deaverage the rates for unbundled local loop elements, in advance of any comparable reform of SNET's bundled basic local service rates, is a flawed attempt at leveling the playing field for local service competition that would only make it more skewed than before.

NECTA posits that the basic problem with SNET's proposal is that it would create a serious price squeeze for competitors who attempt to purchase unbundled loop and port services to offer local exchange service in competition with SNET's bundled basic local services. NECTA also posits that to the extent that the margins are negative, a

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SNET disagrees. According to SNET, a price squeeze will exist as long is its residential rates are priced below costs. SNET argues that the geographic rate structure does not exacerbate that situation. SNET also argues that the USF is specifically designed to address this issue. SNET Reply Brief, p. 21.

competitor would not be able to offer a competitive access line service based on the unbundled tariff elements at a price lower than SNET's without accepting sustained revenue losses. NECTA states that negative margins would be created by virtually all of SNET's proposed unbundled rates with the most severe occurring for residential service in low-density areas. Specifically, based on SNET's proposed unbundled tariff, these margins range from -87% (Metro zone) to -228% (Rural zone) and would create intolerable price squeezes, effectively foreclosing any competition in residential services from CLEC offerings. NECTA Comments, pp. 1, 4-8; Lundquist Testimony, pp. 8-16; NECTA Brief, pp. 19-24, 29-31; NECTA Reply Brief, pp. 4-6.

NECTA claims that SNET's proposed nonrecurring charges associated with the unbundled service offerings also appear to be completely out of line with what it charges its retail customers. NECTA states that SNET's nonrecurring charges for unbundled loops and ports are unsupported and unreasonably high in comparison to the nonrecurring charges assessed on SNET's own retail customers. NECTA also states that SNET has failed to provide adequate support for the high nonrecurring charges it has proposed for providing unbundled loop, ports, and associated features. Additionally, NECTA states that it appears that SNET has proposed to charge its competitors \$101.46 for reassigning an exiting unbundled loop from a SNET customer to a CLEC, and an additional \$71.08 for the associated port. Furthermore, SNET proposes to charge an additional \$20.72 when a CLEC's new customer does not have a pre-existing service. for a total charge of approximately \$190.00, when SNET charges a flat \$45.00 for each of its new retail customers. NECTA argues that to recover the charge from consumers through standard installation fees would be impossible for a CLEC, and to recover that amount over time, the CLEC would have to set a minimum service period that is also clearly unworkable, since customers are not likely to be willing to make such a commitment with a new provider.

NECTA states that there is no cost support provided for the proposed nonrecurring charges, which appear to be about four times SNET's retail rates, and SNET provides no rational reason as to why it should be any higher than what it charges to rearrange service for its own existing customers. Accordingly, NECTA recommends that the Department require SNET to clarify the application of all nonrecurring charges associated with the provision of unbundled elements and justify both the absolute level of such charges and any difference between those rate levels and SNET's current retail charges for its own customers. NECTA also recommends that the Department require SNET to file full cost support for its nonrecurring charges, and ensure that the charges bear a reasonable relationship to their economic costs and the comparable nonrecurring charges applied in the case of SNET's retail services. NECTA Comments, pp. 8 and 9; Lundquist Testimony, pp. 18-22; NECTA Brief, pp. 36-38.

NECTA contends that SNET's banded rates proposal for its WLSB tariff is a thinly-veiled attempt to gain an extreme degree of pricing flexibility for services required by SNET's competitors and is not justified by any alleged uncertainties in market forecasts or costs. NECTA, while noting the same infirmities relative to the banded rates for its

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unbundling tariff, states that SNET has also failed to substantiate its claims regarding the impacts of uncertainty in demand or market conditions with an appropriate sensitivity analysis. NECTA also states that SNET has not provided evidence regarding the alleged impacts of market and demand variables on its cost estimates, so that its argument that such uncertainties would justify pricing flexibility are completely unsupported. Further, SNET has failed to show that its WLSB minimum and maximum rates would bear any reasonable relationship to cost. Specifically, NECTA claims the proposed minimum rates are substantially below cost and therefore unacceptable on their face.

NECTA argues that the rate/cost relationship for SNET's WLSB rates suggests that discriminatory markups will be applied to the service in different zones. According to NECTA, these non-uniform markups artificially increase the costs faced by CLECs for WLSB and thereby discourage their purchase in an anticompetitive fashion. NECTA also argues that SNET has provided no support for applying such divergent markups to its WLSB rates, and therefore these markups should not be accepted as filed. Rather, SNET should be required to refile WLSB rates developed using reasonably low, uniform markups for similar service offerings.

NECTA maintains that SNET's proposed WLSB rates bear unreasonable relationships to SNET's retail local service rates and would create an anticompetitive price squeeze for any CLEC attempting to use the WLSB tariff to provide service to residential customers. NECTA opines that SNET's proposal to tariff WLSB rates using four zone classifications is inconsistent with SNET's existing rate structure for retail local telephone service. NECTA also opines that a fundamental incompatibility is created by the fact that the wholesale zone prices will increase above current retail rates for generally lesser-density exchanges, whereas retail exchange class prices would decrease for exchanges that are more remote from centers of population. NECTA claims that as a result, the margin between the proposed wholesale rate and SNET's existing retail rates decreases dramatically for service in less-dense exchanges and becomes negative for WLSB lines that are used to provide service to residential customers. NECTA cites as an example, the margin for WLSB for business service in a Class V exchange diminishes from 53% to -4% in a Class I exchange in which the Rural WLSB zone rate is applied. Additionally, the margin for WLSB used for residential service is always negative, which according to NECTA indicates that the CLEC would pay more for the wholesale line under the WLSB tariff than SNET would charge for its retail flat rate service. According to NECTA, any CLEC attempting to provide residential service using a WLSB line would be exposed to a classic price squeeze. NECTA maintains that the same conditions would occur under any rate that SNET might

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propose within its minimum and maximum rate bands. NECTA states that rate deaveraging would probably be more harmful to the competitive process if applied to the WLSB tariff, since CLECs are more likely to make use of the wholesale tariff to serve residential customers in the less densely populated portions of the market areas they will be required to serve, where the price squeeze effects will be the greatest. NECTA Comments, pp. 9-15; Lundquist Testimony, pp. 28-34; NECTA Brief, pp. 19-24; 31-36; NECTA Reply Brief, pp. 4-6.

NECTA contends that SNET's proposed unbundled rates for central office features are not cost-based, are unreasonable, and will force competitors to render windfall profits to SNET. NECTA also contends that SNET's proposed current feature charges include markups above its reported TSLRIC values of 200% to 800% and that the potential markups under SNET's proposed maximum rates for features are even higher with rates exceeding its claimed costs in several cases. NECTA comments that it is simply disingenuous to characterize these proposed rate levels as reflective of costs, even if SNET's reported costs were accepted at face value. NECTA states that while the Department may have sanctioned SNET's decision to price features offered on a retail basis far above cost in order to produce contribution, a contribution maximizing strategy is completely inappropriate for the provision of features on a wholesale basis. NECTA also states that approval of non-cost-based wholesale rates for central office features would have adverse effects as well. According to NECTA, the proposed feature rates would fail to give CLECs an economic choice as to how to best to serve their customers, since the rates would be far above the economic costs of providing these services. NECTA Comments, pp. 15-17; Lundquist Testimony, pp. 34-37.

2. Cost of Service Studies

Docket No. 95-06-17

NECTA is critical of SNET's cost studies because SNET uses the same joint cost allocation methodology as it did in its video dial tone (VDT) application filed in Docket No. 95-03-10. NECTA claims that this methodology is unreasonable and allocates an excessive proportion of the HFC facilities' costs to basic telephone services and thereby increases the costs of basic local service. NECTA notes that this allocation method was not approved for SNET's VDT trial, and therefore, the instant tariffs should be suspended until the VDT cost allocation methodology is approved, altered or rejected. Accordingly, NECTA recommends that the Department require SNET to refile cost studies using a more rational and equitable cost allocation methodology and to propose unbundled loop and port rates consistent with that revised methodology.

NECTA also claims that SNET's cost studies are based on the same depreciation proposal filed in Docket No. 94-10-03. NECTA also opines that SNET's proposed depreciation methodologies reflect premature retirement of certain

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plant assets in order to implement equipment capable of supporting competitive services. NECTA argues that by using its proposed depreciation parameters, rather than those currently authorized by the Department, the costs of the unbundled elements have increased. NECTA also argues that the increase in costs due to the change in depreciation is in addition to the higher costs caused by SNET's use of an improper allocation of joint costs.

Additionally, NECTA argues that SNET's use of a three-year study period is not a long run study period nor is it a sufficient period of time to be able to accurately account for the service lives of most plant. NECTA maintains that it is extremely unlikely that a three year study period can capture all relevant long run cost changes due to the many facility types used in providing local loops (e.g., conduit, underground copper and fiber distribution), and the fact that the standard increments in which capacity is installed are far larger than would be exhausted with such a short period. NECTA recommends that at a minimum, SNET explain in detail why a study period of only three years is a reasonable assumption before its cost studies and proposed rates can be accepted. NECTA states that should the Department require SNET to adopt depreciation parameters different from those proposed by SNET, then all pending tariffs and accompanying cost support, including those for unbundled services be refiled using the Department's prescribed depreciation methods and parameters. NECTA Comments, p. 3, 9-11; Lundquist Testimony, pp. 22-27; NECTA Brief, pp. 24-29.

Similar to its comments concerning the lack of documentation for SNET's cost studies for its unbundled elements, NECTA states that SNET has failed to provide sufficient documentation of its cost study inputs, assumptions and methodologies with its proposed resale tariff to permit the Department or interested parties to determine whether its cost results are valid. NECTA also states that the cost support that has been provided suffers from numerous omissions and gaps in methodology, that effectively prevents the Department or any interested party from evaluating the validity of SNET's study methodology or results. Additionally, NECTA claims that the study inputs provided by SNET are completely inadequate for documenting how the cost study results were developed, and fail to substitute for the comprehensive presentation of true study inputs and assumptions that SNET should have furnished in order to support its claimed costs and proposed rates.

NECTA argues that SNET has failed to develop cost estimates for its resale tariff that properly reflect the avoided costs of wholesale provision of service vis-à-vis its retail offerings. NECTA states that when developing cost estimates to support a service that will be offered to resellers, the appropriate starting point is to consider how the wholesale service will differ from that traditionally provided on a retail basis, and to identify the specific cost differences between the retail and wholesale versions of the service. NECTA also states that while SNET claims that it performed such an analysis, it does not appear that all such costs were considered and properly accounted for. Further, while SNET may have made some adjustments for reduced billing and collection and provisioning costs, SNET does not appear to have quantified potential cost savings associated with avoidance of marketing and advertising functions, sales and customer service activities, service order processing and resellers' assumption of the risk of uncollectibles. NECTA notes that SNET has admitted that it has made an adjustment to reflect an allegedly greater frequency of customer disconnects in a competitive environment that offsets many of the avoidable costs that it has recognized. NECTA claims this adjustment to appear to be unreasonable, since the costs associated with the customer disconnects should be fully recoverable through the WLSB access line nonrecurring charge. NECTA Comments, pp. 19 and 20; Lundquist Testimony, pp. 37 and 38; NECTA Reply Brief, pp. 2-4.

3. Contribution

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NECTA suggests that contribution is a critical factor in the development of competition and recommends that it be held to a minimum such that prospective providers will have a better opportunity to compete with SNET in the market. Furthermore, NECTA references the failure of SNET to acknowledge in its submissions the existence of current sources of contribution that offset any losses incurred in the local exchange which should be included in any consideration of contribution.

4. Universal Service Funding

NECTA claims that SNET's USF proposal contains serious flaws in the way that the overall funding requirement is determined, in the manner that funds available to individual service providers are determined, and in the manner in which required funds are to be collected. NECTA also claims that in addition to many substantive flaws, the timing and context in which SNET has chosen to submit its USF proposal is entirely inappropriate. Therefore, NECTA recommends that SNET not be allowed to unilaterally set the time and agenda of the Department's universal service funding review.

NECTA states that the record demonstrates that there is no need to establish a USF at this time in order to ensure the universal availability of affordable, high quality telecommunications services to all residents and businesses throughout the state regardless of income, disability or location. NECTA argues that since the Department has not determined that supplemental funding to that already available to telecommunications services providers and to the public is necessary, the scope of the universal service funding mechanism proposed by SNET is questionable. NECTA opines that under SNET's proposal, the USF would be far broader than the existing Lifeline fund, would considerably overreach the targeted universal service goal articulated in Public Act 94-83, and is entirely inappropriate. NECTA recommends that given the complexity of universal service funding matters, and the significant impacts of their resolution on SNET. CLECs and other industry participants, and Connecticut's ratepayers, a separate proceeding should be established to address these issues. NECTA also recommends that this review be conducted after the Department has reviewed and approved cost of service studies for SNET and determined whether an explicit USF mechanism is actually necessary.

NECTA contends that by applying the Department's costing principles to SNET's submissions, it is unnecessary to establish a USF at this time in order to carry out the specific universal service objectives of Public Act 94-83. NECTA also contends that SNET's proposal is based on its noncompliance with Department directives concerning the allocation of local loop costs and must be rejected. According to NECTA if proper cost allocation principles are applied as directed by the Department, a USF is not needed at this time in order to achieve the Legislatures universal service policy goals.

NECTA further argues that SNET's proposed USF grossly exaggerates the actual deficit that would be supported by any approved universal service requirement. According to NECTA, SNET's general approach to establishing the universal service funding requirement as the difference between the residential local exchange service revenues and local exchange service costs overstates the actual funding requirements by omitting revenues and costs associated with services ancillary to local exchange. NECTA acknowledges that some universal service subsidy may be required, at least during the transition to full competition, but opines that some means must be established for determining who

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should pay the requisite subsidy and how. NECTA disagrees with SNET's proposed approach to making that determination.

NECTA maintains that SNET's USF proposal ignores existing sources of subsidy and focuses entirely on the differential in traditional local exchange service revenues and costs, rather than the differential between that totality of revenues generated by local exchange service customers and the totality of the associated costs. For example, SNET's USF proposal fails to take into consideration revenues from SNET's Yellow Pages business. Carrier Common Line (CCL) revenue, and revenues from such vertical service features such as Caller ID, unpublished number charges and call waiting.²⁰ NECTA posits that revenues from these services should rightfully be included in any calculation of a universal service funding requirement and new entrants should not be required to offset or replace any losses of revenues that may result from competitors' entry into the market. NECTA Comments, pp. 20-27; Lundquist Testimony, pp. 39-49; NECTA Brief, pp. 4-12.

Additionally. NECTA maintains that SNET's proposed USF fails to account for those exchanges in which basic SNET service is priced in excess of its respective costs. In particular, NECTA argues that SNET is proposing all other service providers in the state contribute to costs its incurs in the high density areas in which it is presently underpricing service, but recommends that it be allowed to keep those revenues in those density areas in which its services are providing a contribution. NECTA contends that the universal service funding requirement must be considered on a state-wide basis and cannot exclude those exchange areas in which SNET's tariffed local service offering is priced in excess of costs. NECTA Comments, pp. 27 and 28; Lundquist Testimony, pp. 49-51.

NECTA also disagrees with SNET's proposal that contributions to the USF be consistent with the funding of Lifeline service, (i.e., based on gross revenues generated in Connecticut). NECTA urges the Department to adopt a more competitively neutral and equitable contribution method for any universal service funding requirement. NECTA contends that using the same funding approach which is currently used for Lifeline would place an unfair universal service funding burden on CLECs relative to SNET and is clearly at odds with Public Act 94-83. As an alternative funding mechanism, NECTA recommends that uniform percentage contributions based upon the value added by each industry participant be applied to all services covered by this proceeding. NECTA states that under this approach, the

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SNET disagrees. SNET argues that its subsidy sources will decline as competition in each of these areas develops. For example, SNET states there is currently competition in the yellow page industry as evidenced by the large number of ways that advertising can be accomplished. Similarly, SNET argues that there are currently approximately 80 certified resellers providing toll services in Connecticut thus impacting revenues from that source. Additionally, SNET expects its CCL charges to decline as competition evolves and competition for access service increases. Lastly, SNET argues that there is no continued assurance that SNET will recover subsidies from its provision of vertical features because they can only be provisioned by the port provider and there is no assurance that it will continue to be the only provider of all port services. SNET Reply Brief, pp. 35-37.

total universal service funding budget would be divided by the total industry-wide value added product to produce a "burden rate." That burden would, in turn, be applied to each industry participant on the basis of it respective value added. NECTA defined value added as "the total gross revenues of the provider minus payments made to other telecommunications providers for services that are themselves included within the aggregate value added funding base." NECTA also recommends that the value added calculation take into account payments made to the USF, (i.e., monies drawn from the USF would be included within the gross revenues of the recipient entity). Lastly, NECTA states that under this proposal, distribution of universal service funds would be available to any LEC or CLEC that participates in targeted lifeline and/or high-cost assistance programs. Additionally, income targeted funding under this approach would also be portable, with respect to the customers choice of service provider.

NECTA claims that an advantage of its proposed funding method is that it eliminates any need to require all local carriers to commit to a specific level of lifeline service. Rather, those carriers having a relatively small proportion of Lifeline customers in their customer base would be net contributors to the Lifeline fund; while those serving a disproportionately high share will be net recipients of such funding. NECTA Comments, pp. 28 and 29: Lundquist Testimony, pp. 51-56.

G. SPRINT COMMUNICATIONS COMPANY L.P. (SPRINT)

1. Contribution

Sprint objects to SNET's USF proposal because it does not provide for an offset to the access charges paid by interexchange carriers to originate and terminate interexchange traffic for SNET customers despite the fact that these rates currently include a subsidy that supports universal service.

2. Universal Service Funding

Sprint states that SNET's proposed USF obligates all carriers offering local exchange service to contribute to a USF while, at the same time, LECs such as SNET would continue to collect access charges that contain an element of contribution designated for support of universal service. Sprint argues that there is no rational justification for allowing the dominant local exchange carrier to receive two sources of universal service funding, particularly in light of its exclusive local service market share in Connecticut.

Additionally, Sprint argues that SNET has provided no cost justification to allow it to double-dip in the name of universal service. According to Sprint, if SNET's USF proposal is adopted without a concomitant reduction in access charges, the Department will have effectively provided SNET with an unfair competitive advantage and stifle, if not eliminate, any chance of true local service competition. Therefore, Sprint requests that the

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Department either reject SNET's USF proposal or implement a corresponding reduction in access charges that accurately reflects the contribution to universal service received as a result of the establishment of a USF. Sprint Comments, pp. 1 and 2.

H. TELEPORT COMMUNICATIONS GROUP (TCG)

1. Proposed Rates

TCG states that SNET's proposed WLSB tariff represents SNET's effort to satisfy the needs of the IXC community and that in the future, it and other facilities-based local exchange carriers will develop competing wholesale tariffs. Accordingly, TCG recommends that the Department approve SNET's proposed WLSB tariff. Regarding SNET's proposed unbundled loops and ports tariff, TCG states that it is not prepared to comment on the specifics of this tariff. Kouroupas Testimony, pp. 14 and 15.

TCG argues that the Department has established a framework for the competitive provision of local exchange service which essentially requires provision of local exchange carriers to assume the same universal service responsibilities. TCG also contends that if SNET is permitted to generate its own internal subsidy to maintain low prices for residential telephone service and to provide Lifeline services through the collection of access charges, new entrants must be permitted to do the same. In particular, new entrants should also be afforded the ability to generate their own internal subsidy and not be required to transfer that subsidy to SNET through the payment of access charges. Therefore, TCG argues that all traffic must be terminated to the incumbent local exchange carrier at rates which do not include any contribution. According to TCG, this will enable the new entrants to fulfill their universal service obligations in the same manner that the incumbent local exchange carriers do. TCG Comments, pp. 1-3; TCG Brief, p. 3.

TCG states that the Department must be sensitive to setting rates such that it does not fall short of its intentions of fostering a competitive market by simply creating a resale market where prospective entrants are content to simply rebrand SNET services. According to TCG, rebranding involves one stop shopping where an IXC is simply packaging under its own brand name its own long distance service and a LEC's local exchange service, without making any local network investment. TCG claims that there is a difference between the resale of LEC service elements incorporated into a competitive service and simply rebranding LEC services. Specifically, local resale involves the leasing of LEC service elements such as loops so that CLECs can combine those elements with their own services while rebranding involves packaging under one's own brand name.

TCG argues that substantial amounts of rebranding can inhibit the development of facilities-based competition because rebranding will give consumers and policy makers the illusion of competitive choice in local services. TCG claims that by acting as sales agents for the incumbent LEC rather than as a competitor, a seller of rebranded services does not provide true facilities based competition, but merely gives the existing LEC another sales channel. TCG also claims that this could make it difficult for a new CLEC to attract customers even if it offered redundancy and diversity through its own subscriber access facilities.

While TCG does not oppose rebranding, it believes that the greatest, long term permanent consumer benefits will flow from a truly competitive local marketplace and the development of such a market should be the highest priority

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of the Department. Accordingly, it does oppose the establishment of a discount rate for rebranded services by regulatory first. TCG maintains that with facilities based local exchange competition, any discount will be established through the competitive process rather than by regulatory first. TCG also maintains that in a competitive market, the IXCs will be in a position to negotiate an appropriate discount, and it is through that process, the appropriate discount for rebranding will be established.

TCG contends that it is not necessary for SNET to offer a wholesale local exchange service for IXC rebranding. TCG opines that the legislature did not authorize the development of a USF to ensure that IXCs could rebrand SNET's local exchange service at a guaranteed profit. According to TCG, the IXCs have the same ability to generate the internal subsidy to support a particular pricing structure as any other carrier; the IXC's do not need to be subsidized by a USF established for a completely different purpose. Kouroupas Testimony, pp. 9-14.

2. Cost of Service Studies

TCG maintains that the cost of service studies on which SNET based its proposed rates, charges and USF requirements are improper and inadequate. TCG objects to SNET's cost of service studies because SNET has assigned the total cost of the local loop to local exchange service, instead of assigning it to all SNET services that use the loop. TCG contends that SNET has included HFC costs as costs it must recover, even though the Department has already rejected SNET's allocation of joint and common costs relating to HFC to telephony services. TCG claims SNET's action in this manner is completely inappropriate. TCG also states that SNET's cost allocations make it impossible for the Department to make an informed decision on the need for a USF based on these studies. Lastly, TCG states that because the Department has indicated that these studies are the primary vehicle by which it would quantify a USF, it must reject SNET's universal service proposal. TCG Brief, pp. 8-11.

3. Universal Service Funding

TCG states that it has long supported the establishment of a competitively neutral, carrier-funded universal service fund to which carriers contribute to and from which any carrier providing universal service may withdraw funds to support its costs of providing service. TCG also states that SNET's USF will not encourage CLECs to voluntarily serve a wide segment of the residential market in Connecticut and even more detrimentally, will inhibit their ability to meet the obligations they already have to serve all customers within their designated LMAs within three years. According to TCG, overall, TCG and other parties have clearly demonstrated that the Department should reject SNET's USF because it does not comport with the Department's policies as set out in Docket No. 94-07-08.

With regard to SNET's proposal that CLECs contribute to the fund based on a percentage of Connecticut taxable telecommunications revenue, including revenues earned from providing residential local service, TCG claims that this proposal can reasonably be expected to allow carriers withdrawing from the fund to recover their cost to provide certain

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residential service. Nevertheless, TCG argues that SNET is attempting to ensure a double recovery for itself by 1) being able to withdraw from the fund, and 2) collecting contribution-laden access charges from CLECs terminating traffic on SNET's network. TCG maintains that the effect of such a double recovery would require CLECs to not only support their own universal service obligations but those of SNET as well. According to TCG, such an arrangement would prevent sustainable local exchange competition for all Connecticut consumers and will thwart the objectives of Public Act 94-83.

TCG states that establishing a USF is in the public interest and, when efficiently administered, could function in a manner similar to that which SNET proposes. However, TCG notes that the establishment and operation of a fund tacitly confirms the inefficiency of requiring CLECs to pay each other access charges while contributing monies to the fund.

Additionally, TCG maintains that the Department has adequately ensured fulfillment of the State's universal service goals as articulated in Conn. Gen. Stat. §16-247e. TCG states that the Department's Decisions in Dockets No. 94-07-03 and Docket No. 94-07-08 indicate the Department has instituted sufficient measures to ensure the universal availability of affordable high quality basic telecommunications services to all residents and businesses throughout the state. Therefore, TCG believes, that at this time, it is not necessary for the Department to adopt a USF since it is likely the contribution of in-kind services will satisfy the State's universal service goals. Kouroupas Testimony, pp. 5 and 6; TCG Brief, pp. 4.

Nevertheless, TCG contends that further action by the Department is required to provide potential competitors with the same ability as SNET to fulfill their stand-ready and universal service obligations. TCG also contends that to accomplish this, the Department needs to establish a reciprocal compensation arrangement which permits all LECs to exchange all intraLATA traffic on either a bill and keep basis or at a monthly cost-based rate based on capacity, not on a minutes of use basis. TCG claims that this would permit potential competitors to use the margins on toll calling to subsidize their local calling services in the same manner in which SNET claims it uses to maintains its low rates for local calling.

TCG is also concerned with SNET's ability to double-dip its competitors in the name of universal service under its USF proposal. TCG states that under SNET's USF proposal, potential competitors will continue their historical support for universal service through the payment of contribution laden access charges, and then be asked to contribute to the USF. TCG posits that should the Department adopt its reciprocal compensation arrangement, a USF would not be necessary and with a proper reciprocal compensation arrangement, each carrier would have the means of fulfilling its obligation in the same manner that SNET has historically fulfilled its obligation. Consequently, TCG concludes that the establishment of a USF at this time is unnecessary. Kouroupas Testimony, pp., 6-8: TCG Brief, pp. 6-8.

Regarding SNET's modification to its USF proposal, TCG continues to believe that it is not necessary at this time for the Department to adopt a universal service fund since Connecticut's universal service goals will be met through the mechanism established in the Department's Decisions in Dockets No. 94-07-03, 94-07-08 and 94-07-09. TCG maintains that should a USF be determined to be necessary, it should not be developed for the benefit of the providers, but be directly structured to transfer funds to those customers requiring assistance to remain on the public switched network.

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TCG opines that it appears that SNET's proposal to limit the level of CLECs' recovery even when the CLECs' demonstrated costs exceed the would exacerbate the problem. In particular, TCG contends that SNET will still ensure that it can withdraw sufficient funds to recover its costs, but it would hobble the ability of its competitors to do the same. TCG also contends that if SNET has in fact submitted a flawed cost methodology to establish the USF, the CLECs would be captive to these calculations. TCG maintains that it is unclear as to how SNET will set its proposed cap over the Company's costs and that the proper information required to set this upper limit will only be available after CLECs have fully entered the market and can approximate their costs of service.

TCG also states that SNET seems inconsistent in its recommendation regarding the size of the funding obligation. For example, SNET proposes an upper limit on the costs CLECs can declare to control the size of the fund, but it states that a large fund will be necessary as rates for subsidizing services decrease. According to TCG, SNET will succeed in only ensuring an appropriate recovery for itself based on its modified proposal. Regarding the double recovery issue, TCG states that while SNET indicates that it intends to reduce its rates for certain services such as access, it is likely that some amount of subsidy will continue to flow from these services, making the amount of the USF uncertain.

Additionally, TCG states that SNET's proposal that CLECs contribute to the USF based upon the profitability of customers is not feasible because there is no way to form a static definition of a profitable customer. TCG claims that a customer that is profitable for SNET may not be for a CLEC or vice versa, and it is illogical to assume that profitability will be proportional to the prices a CLEC charges for services. TCG opines that CLECs will presumably change prices to respond to competitive pressures, thereby driving down the margins on so-called profitable customers. This would in turn effect the amount contributed to the fund.

Lastly, regarding SNET's proposal to restructure the USF to serve as an explicit vehicle for loop recovery to the extent that such a mechanism could more closely identify the areas of the state where carriers must provide loops below cost to their customers, TCG recommends that the Company's suggestion be considered. However, TCG notes that it would make more sense to remove the loop contribution from the interconnection rate and treat it as a universal service issue.

In summary, TCG states that it does not believe the Department intended for a USF to only support carriers and that the Department intended any universal service mechanism to guarantee affordable telephone service to customers. Therefore, a mechanism to provide subsidies to customers whose service plan and usage do not cover the costs of their residential access line would target lines that require a subsidy, but not necessarily customers who require a subsidy. TCG maintains that an expanded Lifeline program, in which subsidies are based on need, would be more consistent with the Department's goal to ensure affordable telephone service for all citizens of the State. Kouroupas Supplemental Testimony, pp. 2-8.

Additionally, TCG argues that SNET's proposed USF by its design cannot be equitably applied to all providers. According to TCG, the proposed cap on reimbursements will prevent CLECs from recovering their legitimate costs of providing service. TCG further argues that SNET's ability to use the fund as an extra vehicle for over recovery of its costs is improper, and that all calculations indicate that SNET will withdraw from the fund disproportionately.

V. DEPARTMENT ANALYSIS

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A. STATUTORY FRAMEWORK

As set forth in Section III, above, the principal purpose of this proceeding is to establish rates to be charged by SNET for acquisition and use of unbundled network service elements, network feature enhancements and/or wholesale basic local service for the purpose of repackaging, rebranding or reselling such services or features in direct competition with SNET. In determining such rates, the Department is bound by the mandates of Conn. Gen. Stat. § 16-247b which provides:

- (a) On petition or its own motion, the department shall initiate a proceeding to unbundle the noncompetitive and emerging competitive functions of a telecommunications company's local telecommunications network that are used to provide telecommunications services and which the department determines, after notice and hearing, are reasonably capable of being tariffed and offered as separate services. Such unbundled functions shall be offered under tariff at rates, terms and conditions that do not unreasonably discriminate among actual and potential users and actual and potential providers of such local network services.
- (b) Each telephone company shall provide reasonable nondiscriminatory access to all equipment, facilities and services necessary to provide telecommunications services to customers. The department shall determine the rates that a telephone company charges for equipment, facilities and services which are necessary for the provision of telecommunications services. The rate that a telephone company charges for a competitive or emerging competitive telecommunications service shall not be less than the sum of (1) the rate charged to another telecommunications company for a noncompetitive or emerging competitive local network service function used by that company to provide a competing telecommunications service and (2) the applicable incremental costs of the telephone company.
- (c) A telephone company shall not use the revenues, expenses, costs, assets liabilities or other resources derived from or associated with providing a noncompetitive service to subsidize its provision of competitive, emerging competitive or unregulated telecommunications services.

Conn. Gen. Stat. § 16-247b.

Unbundled loops, ports, multiplexing and interwire center transport support are noncompetitive functions of SNET's local telecommunications network that are used to provide telecommunications services and are reasonably

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capable of being tariffed and offered as separate services. Therefore, under provisions of § 16-247b, the Department must establish nondiscriminatory and compensatory rates and charges for such services. As detailed in Section III above, previous Department Decisions require SNET to offer for resale an equivalent basic local service offering as well as the discrete network service elements deemed necessary to interconnect facilities-based networks of competitors to SNET's customers. The Department must likewise establish nondiscriminatory and compensatory rates for such wholesale basic local service offering.

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B. Conceptual Framework

In order to establish rates and charges for unbundled network services, network feature enhancements and a wholesale basic local service, the Department must address three central issues for each proposed service — Cost, Contribution and Competitive Consequence. The Department recognizes that this framework represents a new way of examining the merits/demerits of any proposed tariff. However, an examination of these issues is consistent with the intent of Conn. Gen. Stat. § 16-247b and is enjoined by the Act's mandate for a multi-provider market.

1. Cost

In this proceeding, SNET submitted for consideration by the Department proposed rates and charges for unbundled loops, ports, network feature enhancements, interoffice facilities and a prepackaged wholesale local service offering. SNET asserts that its proposed rates are above their TSLRIC level in compliance with the requirements of law. In support of its position, SNET submitted a series of cost studies undertaken to demonstrate that costs for loops, ports, interoffice facilities, network feature enhancements and a wholesale local service offering are relatively high and, accordingly, warrant rates and charges that permit SNET to be fully compensated for its cost of making those services available to competitors.

As evidenced from the lengthy discussion of participants' positions above, the other participants in this proceeding challenge the assertion that relevant costs are as high as SNET's cost studies appear to suggest. Participants base their challenge on two critical disagreements with SNET's cost studies — the assumptions used in the studies and the methodological techniques employed. In both situations, opponents contend that SNET purposefully disregarded generally accepted economic principles and specific Department directives issued in prior proceedings when performing its cost studies. In its investigation in this proceeding, therefore, the Department has critically examined the economic assumptions, forecasting techniques and empirical methodologies employed by SNET to calculate the base costs of the services presented for consideration. Specific emphasis has been given to determining the level of SNET compliance with prior Departmental instructions for cost study submissions as detailed in Section III, above.

The Department maintains the opinion it has expressed in previous Decisions that the determination of reasonable cost thresholds is absolutely essential to providing meaningful competition and to realizing broader public benefit in a multi-provider market. A generally recognized and accepted tenet embodied in Public Act 94-83 is that cost must serve as the

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primary determinant of telecommunications prices if economic efficiency is to prevail in the multi-provider market envisioned by the legislature. Determining appropriate cost thresholds for services such as those presented in this proceeding is especially important. The services proposed in this proceeding represent exclusive offerings of SNET which will be made available to prospective competitors for reuse in their own competitive service offerings. A cost and associated price that is too high will discourage competitive entry and severely limit broader market participation. A cost and associated price that is too low will greatly increase the level of financial benefit presented to prospective providers by resale competition and discourage the development of alternative telecommunications infrastructure in Connecticut, possibly limiting the choice of services and providers intended by passage of Public Act 94-83.

2. Contribution

The differences of opinion in this proceeding on the issue of contribution center on the level of contribution that should be provided by the rates and charges of the services in question in this proceeding. Opponents of SNET's proposed rates generally recommend that this Department approve little or no contribution above the TSLRIC level for two principle reasons. First, SNET has available to it a variety of other funding sources to support local service that SNET has disregarded and discounted in the course of its analysis which must be considered. Second, the proposed services represent noncompetitive offerings considered essential to competitors' participation in the market. SNET counters those claims by suggesting that its control over many of the available funding sources is being lost with the advent of competition and that some markup is necessary from all products and services if it is to survive in the long term and has, accordingly, included some markup above cost in all its proposed prices. SNET maintains, however, that its proposed rates reflect lower levels of contribution for critical services and higher levels for the discretionary feature enhancements.

A generally uncontested rate design principle employed by this Department has been to hold the price of basic residential telecommunications service to the lowest possible level whenever possible — even if the lowest possible level was below the actual cost of providing the service — supporting any unrecovered cost associated with that policy from other higher margin service offerings and business initiatives. Over the years, that principle served the Connecticut public very well contributing to some of the lowest basic telephone service rates and one of the highest levels of telephone penetration in the United States.

Application of that principle, however, was predicated upon the availability of complementary products/services that demonstrated substantially less sensitivity to competitive substitutions and, therefore, could support higher margins of profitability to their provider. Products such as Message Telephone Services (MTS), Wide Area Telephone Service (WATS), Yellow Page advertising and various ancillary and vertical services all carry tariff rates or retail prices that have provided a substantial contribution to SNET's general financial condition.

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Historically, the Department has pursued a policy in matters of contribution that has exhibited two universal design principles:

- selectivity rates and charges for individual products/services generate a level of contribution to SNET that may differ from that provided by other products/services of SNET or by similar products offered elsewhere in the telecommunications industry
- pooling contribution from individual products/services is combined with contribution (or lack of contribution) from other products/services of SNET to evaluate the aggregate state of financial performance for compliance with Department directives

In Docket No. 95-03-01 currently being conducted independent of this proceeding, the Department is examining the scope and scale of change to SNET's regulatory framework necessary to ensure future competitiveness in a multi-provider marketplace. Until such time as that framework is altered and the Department's use of both selectivity and pooling techniques is deemed no longer needed, necessary or useful, the Department will continue to employ those techniques in its efforts to set fair and reasonable prices. In the instant proceeding, the participants have generally acknowledged and accepted the pertinence of both principles to the determination of rates and charges for the services in question.

3. Competitive Consequence

Passage of Public Act 94-83 significantly expanded the opportunity for direct market participation by competitive telecommunications providers in Connecticut. The ability to resell SNET facilities is considered by most prospective participants essential to any pursuit of that opportunity as evidenced by arguments in this and prior proceedings before the Department. Likewise, the Department has fully endorsed resale of SNET's local telecommunications network as a means to stimulate competition, accelerate market entry and reduce the level of initial financial commitment necessary to participate in the development of this new market.

The scope, scale or duration of any resale market created by rates and charges approved in this proceeding is of considerable import to both this Department and to the public of Connecticut. SNET has proposed rates and charges that other participants consider to be extraordinarily high and competitively discouraging. As a point of reference, those participants contend that the wholesale prices proposed by SNET exceed the retail prices currently in use by SNET. The participants argue that this "price squeeze" effectively eliminates any opportunity for them to fairly compete and they thus ask for a significant reduction in the proposed rates. SNET counters the recommendation by arguing that its current retail rate is below the actual cost of providing the service and any proposed wholesale rate lower still will only aggravate its financial condition.

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The Department is of the opinion that rates and charges that are set too high may unduly limit competitive participation by some competent and capable competitors. That would effectively limit the range of choices available to the Connecticut public and would thus fail to meet the goals of Public Act 94-83. Correspondingly, rates and charges that are set too low will only prolong the existence of a resale market and retard the eventual development of facilities-based competition in Connecticut. That, too, would fail to achieve a stated goal of the Act. It is essential, therefore, that the Department seriously consider the implications of any rate or charge it establishes in this proceeding to the achievement of the strategic goals and objectives of Public Act 94-83. Unbundled loops, ports and interoffice facilities are needed and necessary as a transition vehicle to facilities-based competition and must be priced as such to meet that objective. The Department will ensure that its efforts to achieve a framework for strategic competition are not lost to the expediency of resale.

It is also important to recognize that CLECs are not leasing the loop exclusively to provide local exchange service; they are leasing the loop in an attempt to offer their own customers a variety of services available from the CLECs. There is nothing in the submissions of the participants to suggest that any of the principal participants envision themselves as only local service providers. To the contrary, a number of CLECs have publicly stated their intent to provide local exchange service, state toll service, interstate toll service, vertical features equivalent to SNET's custom calling, and centrex in direct competition with SNET. It is difficult for the Department to envision any serious CLEC prescribing for itself a role in this market that is anything less than inclusive of local, toll and certain vertical features. To do so would be to forfeit the opportunity for both supplemental revenue streams and competitive parity in the Connecticut market. The Department, therefore, believes that most entrants into the Connecticut market will provide a broad family of products and services that will serve their specific interests and support achievement of their financial objectives. This point has not been fully recognized or acknowledged by the participants in this proceeding, but will not be ignored in this Decision.

C. COST OF SERVICE STUDIES

1. Cost of Service Studies

In reviewing the submissions of the participants in this proceeding, the point of principal contention appears to be SNET's representations of the estimated costs it will incur in making unbundled services and WLSB available to its competitors. SNET constructed its rate proposals in this proceeding on a series of self-directed financial analyses that endeavor to demonstrate for this Department the underlying cost associated with providing each of the respective unbundled service offerings. SNET states that these Cost studies are based on five generally accepted economic principles previously endorsed by this Department. Specifically, SNET has maintained that its cost submissions: 1) are forward looking by the fact that unbundled services covered in the study are by definition "future" offerings and should be properly evaluated in the context of estimated "future" costs; 2) produce rates that reflect changes in cost resulting from changes in demand; 3) employ accepted principles of cost causation; 4) utilize analysis periods that conform to the definition of long run; and 5) are based on SNET's best cost estimates of its incurred costs to make available the unbundled services. Other

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participants argue that SNET's cost studies are so flawed and thus result in such inflated estimates of costs that wholesale rates based on those costs would be competitively unbearable.

Upon careful examination of SNET's cost studies, the Department has found substantive deficiencies. Those deficiencies are explained below.

a. Cost Study Documentation

In prior Department Decisions, SNET has been directed to file with its cost studies sufficient documentation (e.g., underlying assumptions, data inputs and algorithms) to enable independent evaluation of both the methodology used and the results of its studies. See, e.g., August 8, 1990 Decision, Docket No. 88-03-31, p. 15; June 28, 1991 Decision, Docket No. 89-12-05, pp. 18 and 19, 47. SNET's cost studies filed in this proceeding fail to meet this requirement. Such deficiencies must be corrected. Specifically, SNET must submit sufficient documentation so that every step of the analysis can be replicated and all source data used must be provided and documented to the degree that an audit trail is readily discernible. The Department notes that this directive includes delineating TSLRIC from proposed contribution.

b. HFC Costs

As described in detail in Section IV, above, SNET's cost studies assign approximately 64% of HFC costs to telephone and the remaining 36% to broadband services. SNET used this same allocation method in Docket No. 95-03-10, in which the Department reviewed SNET's proposed tariff to offer a Video Dialtone trial. In that docket, the Department rejected the principle that broadband services such as video dialtone are simply tangential initiatives made possible by the deployment of a hybrid fiber coax distribution fabric. Thus, in its Decision in Docket No. 95-03-10, the Department specifically directed SNET to develop for the future an allocation methodology that better recognizes the principles of cost causation. In this proceeding, SNET chose to resubmit a cost study for unbundled loops based upon the same parameters as those rejected in Docket No. 95-03-10, contending that it has offered the Department a better explanation of the methodology's relative merits.

While recognizing SNET's claims in both Docket No. 95-03-10 and this proceeding regarding the cost benefits of deploying a hybrid fiber coax architecture, the Department remains unconvinced that SNET's approach conforms with the economic principle of cost causation. Furthermore, the methodology wholly ignores consideration for issues of capacity utilization and derived benefit. Despite the claims by SNET that the deployment of a hybrid fiber coax infrastructure can be cost justified on the merits of its contribution to the core telephone business, the availability and accessibility of a broadband fiber optic infrastructure to the development of new, non-telephone services cannot be denied. Although the testimony in this proceeding has not directly addressed the need for increased capacity conceivably offered by an HFC network, it is reasonable to conclude that additional capacity will be realized on such a network and will be made available for use with other telecommunications and non-telecommunications services not heretofore generally available in Connecticut. The ability to even consider offering many of the information and

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entertainment services deemed important by SNET to its future is contingent upon having available to it a ubiquitous broadband, hybrid fiber coax infrastructure to distribute the associated services. Those initiatives, whether currently authorized or not, will be a direct beneficiary of SNET's immediate deployment of an HFC distribution system. Therefore, it is important that this Department's policies ensure that those envisioned services meaningfully contribute toward the cost of deploying the distribution platform in proportion to their expected benefit. In the Department's view. SNET's proposed unbundled loop cost methodology unfairly attributes all costs associated with the deployment of a new infrastructure on a relatively narrow segment of the family of services it currently supports and, conceivably, an even narrower segment of its future family of telecommunications, information and entertainment services. That remains an unacceptable approach to representing the underlying costs of offering local service.

The Department, therefore, again rejects SNET's proposed allocation formula. In doing so, the Department is fully aware that it creates theoretical conditions under which SNET may not achieve full recovery of its investment in the HFC distribution network in the immediate future. The Department previously indicated in Docket No. 91-10-06, where this subject was first introduced in the context of SNET's network modernization strategy, that it has not in the past, nor will it in the future, provide pre-approval authority for deployment of any particular technological initiative. The decision to deploy a particular network topology or component technology such as HFC is an exercise of discretionary managerial authority and not the Department's responsibility. Public Act 94-83 and/or the introduction of competition does not change that fact. It is reasonable to assume that any deployment of an HFC architecture is consistent with the strategic interests of SNET and that realization of those strategic interests will validate SNET's decision. The Department will not, therefore, challenge the relative merits of management's decision to pursue this technological initiative, nor will it mitigate any attendant risks by ensuring a full recovery of the investment from the core telephone business. However, the Department must ensure that the current user community is effectively insulated from any potential risk attendant to such a market-driven decision.

In revised cost studies, which will be ordered by the Department, SNET must develop an allocation methodology for HFC costs that reflect the stated concerns of both the Department and the FCC.

c. Miscellaneous Costing Issues

SNET's unbundled loop cost studies depart from prior Department Decisions and orders in a number of ways. First, SNET's long run incremental cost methodology is inconsistent with the Department's fundamental instructions that all costs must be treated as variable. See, June 15, 1995 Decision, Docket No. 94-10-01; August 8, 1990 Decision, Docket No. 88-03-31, pp. 6 and 7; June 28, 1991 Decision, Docket No. 89-12-05, pp. 17 and 18. Second, SNET's use of capacity cost is not acceptable. The proposed rates calculated under this approach generate a deficiency allowance that is unrelated to the actual use of the loop. Contrary to SNET's repeated assertions, the capacity cost techniques employed by SNET in its cost studies have never been approved by the Department because of the very distortions evidenced in the cost study in this proceeding. SNET Reply Brief, p. 18. Third, although the Department recognizes that at the time SNET's cost studies were performed, the Department

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had not yet issued its Decision regarding the issue of depreciation in Docket No. 94-10-03, that Decision has now been issued and SNET must comply with the orders therein in performing its cost studies. Fourth, the Department concurs with OCC that it appears that investment for digital loop carrier is too high. Gabel October 4, 1995 Testimony, pp. 4, 7. Fifth, SNET's studies must adhere to jurisdictional separations rules prescribed by the FCC; in addition, the Department explicitly stated in its Decision in Docket No. 94-10-02 that SNET must attribute only a portion of the loop cost in its TSLRIC studies to local service and, accordingly, to both a wholesale WLSB offering and an unbundled loop offering. SNET's studies, therefore, must recognize the cost responsibility of other services that use the loop. Sixth, the Department finds little explanation or analysis to suggest that SNET has compiled cost estimates as if it were providing facilities on a bulk basis to other carriers rather than on an individual subscriber level. Even without the empirical evidence provided by a cost study. it is reasonable to conclude that some economies of scale and scope may be available that would lower the provisioning costs envisioned by SNET in the future. In the Department's opinion, it is only prudent that SNET provide the Department, at the time it files its revised cost studies, a companion cost study detailing the costs and benefits SNET would experience as a provider to CLECs of unbundled service elements and of WLSB.

Two final costing issues should also be noted. SNET offered little justification for its connection and disconnection cost estimates associated with increased customer "chum." SNET must, therefore, separately produce cost and rate elements for connection and disconnection of unbundled loops and connection and disconnection cost and rate elements for such activities on a bulk basis for the CLECs prior to approval of any permanent connection and disconnection tariff. In similar fashion, SNET presented no reasonable explanation in this proceeding to justify the inclusion of pole attachment expenses in its unbundled loop study. The Department fails to see the causal relationship between the expenses associated with making available space on its poles for lease by a cable television operator and the costs of making available its own plant facilities for resale. Inclusion of such costs in future cost studies will not be permitted by the Department.

D. RATES AND CONTRIBUTION

The Department has on numerous occasions expressed its opinion that the intent of Public Act 94-83 is to afford the Connecticut public the opportunity to exercise choice over its telecommunications decisions. The Department has further stated its belief that the desired

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choice of products, prices and providers of telecommunications services will be realized with the creation of efficient competitors and effective competition.

The Department's intent in this proceeding has been to provide those companies interested in participating in the Connecticut telecommunications market the technical means to expeditiously and cost-effectively offer competitive alternatives using, in part or in whole, network facilities available from SNET. In doing so, the Department is keenly aware of the importance of fairly and reasonably pricing access to and use of the SNET network.

In general, the participants in this proceeding have concluded that SNET's proposed rates are excessive in relation to SNET's current prices for equivalent, bundled retail service offerings. Specifically, SNET has proposed to price its unbundled service elements and wholesale local service offering at rates that in most instances are higher than current retail rates. The following illustrations show the proposed wholesale rates and the current retail rates.

Unbundled Loop (voice grade analog)

	SNET Proposed_ Wholesale Loop Rate	Current Retail Loop Rate
Metro	\$12.00	\$22.55*
Urban	\$16.50	\$22.55*
Suburban	\$19.50	\$22.55*
Rural	\$22.50	\$22.55*

a) *These figures represent the current private line tariffs on file with the Department (VG2/3 Analog 2 wire private line).

Unbundled Port (voice grade analog)

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Ŀ	SNET Proposed Wholesale Port Rate	Current Retail Port Rate
Metro	\$1.90+	n/a
Urban	\$1.90+	n/a
Suburban	\$1.90+	n/a

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Rural \$1.90+ n/a

+SNET also proposes to apply a \$0.008 usage origination charge for each minute of local use to each port over and above the Port Rate here indicated.

Wholesale Local Service (Residence)

•	Proposed Wholesale Rate	Current Retail Rate
Metro	\$18.50	\$14.53#
Urban	\$25.50	\$13.53#
Suburban	\$26.50	\$12.53#
Rural	\$29.50	\$11.53#
		\$10.53#

#Under the proposed wholesale tariffs SNET will employ only four rate categories rather than the five it currently uses at the retail level. Customers in each current group may be subject to reclassification.

Wholesale Local Service (Business)

	Proposed Wholesale Rate	Current Retail Rate
Metro	\$18.50	\$39.23#
Urban	\$25.50	\$36.53#
Suburban	\$26.50	\$33.83#
Rural	\$29.50	\$31.13#
	·	\$28.43#

#Under the proposed wholesale tariffs SNET will employ only four rate categories rather than the five it currently uses at the retail level. Customers in each current group may be subject to reclassification.

The participants have suggested that because outside plant facilities (loops) and central office switching ports are essential for the development of effective competition, prices above TSLRIC should be kept to an absolute minimum to permit some operating margin for

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prospective competitors. Accordingly, they have requested that the Department reduce the prices to a level that is financially tolerable and which encourages broader participation in the market.

As set forth in detail in Section III, above, prior to this proceeding the Department has concluded that prices should be set at TSLRIC plus some markup to provide a contribution to common costs not otherwise recognized and recovered in the TSLRIC analysis. The Department remains committed to that principle. Moreover, the Department bears sole responsibility in this proceeding to set prices for the unbundled service elements, feature enhancements and WLSB such that effective competition in the telecommunications market in this state is fostered. Any failure on the part of the Department to provide such rates and charges will severely impede the benefits anticipated by the public to accompany the introduction of competition in Connecticut.

The Department, however, is faced with a dilemma. In this proceeding, SNET, as the sole repository of cost information, bore a special burden of responsibility to assist the Department in seeing that the rates and charges approved herein are fair and reasonable (to SNET and to its competitors) and foster competition in Connecticut. SNET has failed, however, to provide the Department an uncontestable cost foundation necessary to support a pricing structure such as that sought by SNET and has, accordingly, jeopardized the evolution of broader market participation in Connecticut and the realization of competitive benefits by the public. However, with modifications to SNET's study parameters and methodologies, the Department is confident that, in the near future, SNET will be able to submit to this Department proposed rates and charges that are fair, reasonable, foster competition and are in the public's interest.

In the interim, however, the Department must determine an appropriate course of action. To simply deny SNET's tariffs would result in the unavailability of the unbundled services and WLSB to competitors. Competitors would thus effectively be foreclosed, at least for the near future, from entering the Connecticut local exchange markets. Such a consequence is clearly inconsistent with Public Act 94-83 and past Decisions of the Department. The Department, therefore, must set interim rates for the relevant services, subject to modification upon filing of accurate and corrected TSLRIC studies. The Department is very much aware of the uncertainty that such a decision may present to SNET and to the CLECs. However, the Department must move forward in this area as explained above. The interim period will be measurable in weeks or months and any seeming hardship that this presents to any provider is therefore manageable. With approval of revised SNET cost studies

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and permanent rates, all rates and charges associated with the relevant services will be adjusted accordingly. No true up provisions will be made for SNET's lost revenue opportunity, if any, and no "grandfathering" of interim rates will be permitted to any provider.

Separately, the Department examined the issue of a Universal Service Fund. The Department previously stated in Docket No. 94-07-08 that the need for any such USF must be considered in the context of unrecovered costs in providing local service. By providing deficient cost studies, SNET has failed to demonstrate that its costs for providing local service warrant further financial support. Therefore, without proper TSLRIC studies upon which to base a decision, the Department cannot offer a conclusion on this issue. It is the intent of the Department, however, to render a decision on this issue with the submission of acceptable cost studies. For purposes of the interim period, until such time as those cost studies are submitted and found acceptable, the Department will not endorse any USF fund or USF contribution requirement of the participants. Likewise, upon acceptance of any cost study and any determination that a USF is needed and necessary to preserve universal service eligibility and contribution, application thereof will be on a going forward basis with no retroactive treatment.

The question thus becomes the appropriate benchmark for setting rates in this Decision. Some participants propose that the Department establish unbundled rates and charges with virtually no cost basis but which result in lower and more attractive rates than those proposed by SNET. While the Department appreciates the confidence in such wizardry, the Department cannot disregard its fiduciary responsibilities under Public Act 94-83 and embrace this rather simple but reckless proposition. Therefore, for the immediate purposes of this proceeding, the Department will use the only information available to it, SNET's submissions, to craft rates and charges for the relevant services pending submission by SNET of significantly improved cost studies and approval of final rates and charges for wholesale services.

In the interim period until SNET has made available new cost studies and has received approval for its rates, SNET will employ the proposed tariffs with the following exceptions:

 nonrecurring charges for WLSB will be the same as those applied under Connecticut tariff for establishing, moving or rearranging corresponding SNET basic local residential services

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- nonrecurring charges for unbundled ports, unbundled loops and interwire center transport will be 50% of the proposed SNET tariff charge in this proceeding
- recurring and nonrecurring charges associated with DS-1 and DS-3 offerings will be the same as those currently available under any other authorized SNET tariff for equivalent DS-1 and DS-3 service
- recurring central office port charges will be as proposed by SNET in its tariff filing with the additional local usage charges as proposed by SNET in this proceeding
- recurring charges for WLSB, for the interim period, will be as follows:

Wholesale Local Service - Basic (Residence)

	Proposed	Current	Interim
	Wholesale Rate*	Retail Rate*	Wholesale
Rate*	•		
Metro	\$18.50	\$14.53	\$12.08 **
Urban	\$25.50	\$13.53	\$13.23**
Suburban	\$26.50	\$12.53	\$17.23**
Rural	\$29.50	\$11.53	\$16.87**
		\$10.53	

^{*}For comparison purposes, these figures do not include the Subscriber Line Charge that is currently a separate line item charge and which SNET proposes to charge CLECs.

Wholesale Local Service - Basic (Business)

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^{**}The interim rates are a composite of the \$1.90 port charge plus a declining percent of the loop cost as provided by Davis Testimony, Docket No. 95-03-01, November 1, 1995, p. 3776 {PROPRIETARY}. The usage charge component associated with use of a SNET port will be charged to the contracting provider in addition to the interim wholesale rates.

	Proposed	Current	Interim
	Wholesale Rate	* Retail Rate*	Wholesale
Rate*	· ·		
Metro	\$18.50	\$39.23	\$12.08 **
Urban	\$25.50	\$36.53	\$13.23**
Suburban	\$26.50	\$33.83	\$17.23**
Rural	\$29.50	\$31.13	\$16.87**
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*For comparison purposes, these figures do not include the Subscriber Line Charge that is currently a separate line item charge and which SNET proposes to charge CLECs.

**The interim rates are a composite of the \$1.90 port charge plus a declining percent of the loop cost as provided by Davis Testimony, Docket No. 95-03-01, November 1, 1995, p. 3776 {PROPRIETARY}. SNET testified in this proceeding that it does not wish to differentiate by use of the loop and further does not intend that competitors be required to disclose business intentions. Therefore, no differences should exist between residential and business interim rates. The usage charge component associated with the use of a SNET port will be charged to the contracting provider in addition to the interim wholesale rates.

recurring charges for unbundled local loops will be as follows:

a) Unbundled Loop (Analog Voice Grade)

D)		Proposed Cu	rrent	Interim
		Wholesale Rate*	Retail Rate*	Wholesale
1	Rate*			
a)				
b)	Metro	\$12.00	\$22.55***	\$10.18**
c)	Urban	\$16.50	\$22.55***	\$11.33**
d)	Suburban	\$19.50	\$22.55***	\$15.33**
e)	Rural	\$22.50	\$22.55***	\$14.97**
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*For comparison purposes, these figures do not include the Subscriber Line Charge that is currently a separate line item charge and which SNET proposes to charge CLECs.

**The interim rates are based on a declining percent of the loop cost as provided by Davis Testimony, Docket No. 95-03-01, November 1, 1995, p. 3776 {PROPRIETARY}. During the period of these interim rates, a contracting provider will not be obligated to pay an additional monthly cross-connect termination charge for 2 wire local exchange access as proposed by SNET.

a) ***These numbers are the current private line tariffs on file from SNET.

It is the opinion of the Department that these modifications to SNET's proposed tariff are warranted and reasonable for use as a transitional vehicle and an interim approach until SNET can develop improved costs studies and justifications. The interim rates are priced at a level that will encourage the development of effective competition and provide the necessary incentive to SNET to refile as quickly as possible an acceptable set of costs and proposals from which the Department may establish final rates and charges. It should be noted that acceptance of the geographic zones as proposed by SNET is for the interim period and subject to change if differences in costs in such regions is not supported by the TSLRIC studies. The Department also puts SNET on notice that it did not in this proceeding present sufficient justification for the Department's adoption of a range of rates for the services.

Participants have argued that the interim rates adopted herein result in a price squeeze in the Suburban and Rural zones. As noted previously, the perception of any price squeeze is created by the participants in this proceeding who limit their analysis to the very narrow perspective of a single product's particular profitability or market value. The participants in this proceeding have repeatedly impressed upon the Department and the public their intent to offer a broad family of products and services, not simply local service, to achieve their financial objectives. It appears to the Department that those participants who argue that a price squeeze exists in certain areas of the state are of the opinion that basic local service should bear the full financial responsibility of supporting the cost of the associated infrastructure available to the provider. At the same time, those participants wish to deny SNET the same privilege when it performs its cost studies to establish the rates for the wholesale offerings relevant to this proceeding. The Department

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is of the firm opinion that the proposed interim rates do not, simply by the fact that they exceed the current retail rates for comparable services, constitute a price squeeze. Current retail rates do not have a foundation solely in costs and, accordingly, cannot serve as a suitable basis for comparison.

Separately, participants in this proceeding have objected to SNET's apparent unwillingness to employ any volume discount for its unbundled service offerings. According to SNET, it is not in the position to offer a volume discount at this time because it would be the only customer that would qualify for these discounts, which would be contrary to competitive movement in the marketplace. The Department is less than impressed with the rationale provided by SNET to resist what appears to be a relatively reasonable request. The concept of volume discounts or bulk pricing is a fairly familiar one in this industry with origins in bulk billed Message Telephone Service generally known as WATS. WATS represented nothing more than a volume-based package of long distance discounted, in part, to reflect the avoided costs of capturing, recording and processing individual long distance calls attributable to a single account. More recently, SNET provided a form of pricing discount in its DS1 and DS3 service offerings in comparison to an equivalent number of collocated T1 services.

The rationale provided by SNET to deny introduction of a volume discount is insufficient. Therefore, on or before March 1, 1996, SNET shall separately provide for review and consideration by this Department a proposed volume discount plan and the rationale for its respective design. Upon approval of any such plan, SNET will consider all unbundled services then committed to a CLEC by terms of the unbundled service tariffs to be eligible, on a going-forward basis, for consideration and calculation of any warranted discount. If SNET fails to file such volume discount plan by the above referenced date, the Department shall immediately order the terms and conditions of the volume discount plan to be in effect during the period of the interim rates.

Incidental to this proceeding is the issue of number portability raised by a number of the participants in their submissions. The Department is fully aware of the importance of this issue to both the participants and to the public of Connecticut and will, accordingly, give it due attention in Docket No. 95-11-08, <u>Application of The Southern New England Telephone Company for Approval to Offer Interconnection Services and Other Related Items Associated with the Company's Local Exchange Access Service Tariff, where a pricing proposal for number portability has been made by SNET.</u>

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Similarly, the Department takes note of the issues raised in this proceeding in reference to disparities in costs for colocation and interconnection of facilities-based providers in Connecticut with those proposed in this proceeding for resale offerings. It was the stated intention of this Department to address only the question of resale in this proceeding. Issues associated with costs for colocation and interconnection will be fully and fairly examined in the context of Docket No. 94-10-04, <u>DPUC Investigation into Participative Architecture Issues</u>. The current policies and prices associated with colocation and interconnection were established by this Department prior to enactment of Public Act 94-83 and will, accordingly, require further examination in Docket No. 94-10-04.

Finally, the Department turns to SNET's proposed rates and charges for network feature enhancements. While these rates are based on SNET's deficient cost studies, the participants have not raised significant opposition to their implementation. Some participants have objected to the level of markup added to incremental costs; however, the Department finds that they are not unreasonable on an interim basis for such discretionary services and should be used to test the resourcefulness of the prospective participants to make use of them during that period of time.

E. MUTUAL COMPENSATION

In Docket No. 94-10-02, OCC recommended a mutual compensation proposal that provided a 15% contribution to the local loop in certain of its mutual compensation options. The Department adopted the OCC mutual compensation proposal, with modifications, but deferred to this docket the determination of the actual percentage of contribution to the local loop to be included in the relevant mutual compensation options. In light of the deficient cost studies presented in this proceeding, the Department has not made a final determination as to the appropriate contribution to be provided SNET. The options of the mutual compensation plan requiring contribution to the local loop will not be available to providers for at least a nine month period. By then, the Department will have made the necessary determinations as to contribution based on SNET's corrected cost studies and will thereby determine the applicable contribution for mutual compensation.

VI. CONCLUSION

At the outset of this Decision, the Department noted that this proceeding represents the first in a series of regulatory initiatives that will be necessary to translate the policies, rules and regulations previously established by the Department for use in a multi-provider market. It also represents one of the most difficult initiatives to date associated with the implementation of Public Act 94-83. The Department is well aware of the fact that no participant in this proceeding will be totally satisfied with the outcome of this Decision, but that is the nature of both the regulatory and competitive processes. It is the hope of the Department that all of the participants in the proceeding will focus on the merits of the Department's actions and accommodate themselves to a continually evolving set of market conditions.

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The future will increasingly be one in which information is insufficient, forecasts and estimates are imperfect and past experiences are irrelevant to regulatory decisions. It will be essential for everyone to keep that in mind in the coming months as together we move toward realization of a competitive telecommunications marketplace in Connecticut.

VII. FINDINGS OF FACT AND ORDERS

A. FINDINGS OF FACT

- 1. The determination of reasonable cost thresholds is essential to providing meaningful competition in Connecticut's telecommunications markets.
- 2. Substantive deficiencies exist in SNET's cost studies filed in this docket.
- 3. To reject SNET's proposed tariffs due to the deficiencies in the cost studies would delay competition and thus be inconsistent with Public Act 94-83 and prior Decisions of the Department.
- 4. The Department must set interim rates for the relevant services, subject to modification upon filing of corrected TSLRIC studies.
- 5. In setting interim rates, the Department will use the only information available to it, SNET's submissions.

B. ORDERS

For the following Orders, please submit an original and five copies of the requested material to the Executive Secretary, identified by Docket No., Title and Order Number.

- No later than January 3, 1996, SNET shall file with the Department revised Unbundled Loop and Wholesale Local Service - Basic tariffs with interim rates and charges consistent with this Decision, Section V., <u>SUDIA</u>.
- 2. SNET shall perform any future cost studies consistent with this and previous Decisions of the Department.
- 3. SNET shall include in its revised Unbundled Loop and Wholesale Local Service Basic cost studies and revised tariffs, separate cost and rate elements for the connection and disconnection of unbundled loops and connection and disconnection cost and rate elements for such activities on a bulk basis for the CLECs.
- 4. On or before March 1, 1996, SNET shall separately provide for review and consideration a proposed volume discount plan.

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Lead staff: P. Pescosolipo Date/Time: December 20, 1995 01:12 PM

DOCKET NO. 95-06-17

APPLICATION OF THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY FOR APPROVAL TO OFFER UNBUNDLED LOOPS, PORTS AND ASSOCIATED INTERCONNECTION ARRANGEMENTS

This Decision is adopted by the following Commissioners:

Reginald J. Smith	
Thomas M. Benedict	 <u> </u>
Jack R. Goldberg	

CERTIFICATE OF SERVICE

The foregoing is a true and correct copy of the Decision issued by the Department of Public Utility Control, State of Connecticut, and was forwarded by Certified Mail to all parties of record in this proceeding on the date indicated.

Robert J. Murphy	Date
Executive Secretary	
Department of Public Utility Control	

P. PESCOSOLIDO

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STATE OF NEW YORK PUBLIC SERVICE COMMISSION

At a Session of the Public Service Commission held in the City of Albany on September 7, 1995

COMMISSIONERS PRESENT:

Harold A. Jerry, Jr., Chairman Lisa Rosenblum John F. O'Mara

- CASE 95-C-0657 Joint Complaint of AT&T Communications of New York, Inc., MCI Telecommunications Corporation, WorldCom, Inc. d/b/a LDDS WorldCom and the Empire Association of Long Distance Telephone Companies, Inc. Against New York Telephone Company Concerning wholesale provisioning of local exchange service By New York Telephone Company and Sections of the New York Telephone's Tariff No. 900.
- CASE 94-C-0095 Proceeding on Motion of the Commission to Examine Issues Related to the Continuing Provision of Universal Service and to Develop a Regulatory Framework for the Transition to Competition in the Local Exchange Market.
- CASE 91-C-1174 Proceeding on Motion of the Commission Regarding Comparably Efficient Interconnection Arrangements for Residential and Business Links.

ORDER CONSIDERING LOOP RESALE AND LINKS AND PORTS PRICING

(Issued and Effective November 1, 1995)

BY THE COMMISSION:

INTRODUCTION AND BACKGROUND

For some time, in a succession of proceedings, we have been putting into place the framework for a smooth transition to competition in the telecommunications industry. The framework seeks to open the local market to competition while preserving universal service and service quality, particularly for those

Case 28469, Communications Competition Proceeding (Competition I), Opinion No. 89-12 (issued May 16, 1989).

customers who may not benefit from enhanced choices. Most recently, these matters have been under consideration in the <u>Competition II</u> proceeding.¹

In the course of that proceeding, it has become apparent that many entities most capable of providing competitive alternatives to the incumbent monopolies will require access to certain facilities ("links"), as well as the ability to resell local exchange services provided by the incumbent, in order to fill out their networks so as to provide service over a wide market area. Entry platforms such as these are essential to the competitors, particularly where the competitor has not yet deployed its own plant and facilities.

The pricing and availability of such bundled and unbundled exchange access services are not only critical to the development of competition for local telephone services; they also affect the general availability of service to all willing customers, or universal service. If the prices are too low, competitive entry may be stimulated at the expense of alternative facilities-based providers and of the incumbent's financial condition. It may also increase the risk of high rates for customers who do not yet have a competitive alternative. If the prices are too high, desirable entry may be forestalled and customers denied the benefits of choice. These matters are integral to local service competition, and are specifically the subject of the ongoing Competition II proceeding.

In our Intellipath Order, we determined that exchange access service (the loop) which is integral to the provision of basic telephone services, should be unbundled into

Case 94-C-0095, Transition to Competition in the Local Exchange Market.

Case 88-C-004, <u>Open Network Architecture</u>, and <u>Comparably Efficient Interconnection</u>, Opinion No. 91-24 (issued November 25, 1991).

two separate rate elements: the link and the port. We reasoned that such an unbundling would be essential to the development of competitive alternatives for end-users.

The link itself has proved to be critically important to many firms that are considering entry into the telecommunications market. Therefore, we directed New York Telephone to establish links (and ports) as unique, stand-alone services. Rates for link services became effective on a permanent basis on March 1, 1995 ("March 1 Order").

Link rates were established for Rochester Telephone Corp. in 1994 as part of its Open Market Plan. However, parties did not agree that these rates were acceptable, particularly since the monthly charge for bundled residential access to the network was less than the charge for the links, which are part of that access. We deferred consideration of issues related to link and loop pricing to the ongoing Competitive II proceeding.

Collaborative discussions in the <u>Competition II</u> proceeding addressing Level Playing Field issues have included consideration of the issues outstanding in Case 91-C-1174 (the Link and Port Proceeding) as well as broader issues related to the pricing relationship of wholesale and retail services. Staff in that proceeding have made a number of recommendations with respect to the appropriate pricing of these services and the development of cost information with respect to them, which have not yet been fully considered. One of these is that unbundled loop facilities be priced at incremental cost.

Case 91-C-1174, Order Making Link Rates Permanent (issued March 1, 1995).

Case 93-C-0033, <u>Rochester Telephone Corporation</u> - <u>Multivear Rate Stability Agreement</u>, Opinion No. 94-25 (issued November 10, 1994).

^{2/ &}lt;u>Id.</u>, mimeo p. 29.

Finally, in approving New York Telephone's Performance Regulatory Plan, "we stated our intention to examine the entire range of issues related to bundled and unbundled link and port resale promptly in connection with consideration of petitions for rehearing of earlier orders on this matter in Case 91-C-1174, and in the analysis of the level playing field issues in the Competition II proceeding.

PETITIONS FOR RELIEF

Two petitions have been filed seeking various remedies concerning the pricing and availability of bundled and unbundled exchange access services. Since these petitions involve issues that will be considered in the ongoing <u>Competition II</u> proceeding, they will be dealt with in detail in that case.

MCI's Petition for Reconsideration

On April 14, 1995, MCI Telecommunications Corporation (MCI) filed a petition for reconsideration of the March 1 Order, contending that the rate for New York Telephone's link service is excessive and creates a "substantial" barrier to competition when compared to the price of the underlying retail service. (The effective link rate is roughly \$24 per month while New York Telephone's effective rate for residential customers is approximately \$10 per month for non-Lifeline customers.) The petition was supported by AT&T Communications of New York, Inc. (AT&T), MFS Intellenet of New York, Inc. (MFS), Residential Communications Network Services of New York, Inc. (RCN), and ACC National Telecom Corp. (ACC).2/

Case 92-C-0665, New York Telephone Company - Incentive Regulatory Plans, Opinion No. 95-13 (issued August 16, 1995), mimeo p. 88.

New York Telephone replied that the petition for reconsideration was untimely as filed; Secretary Kelliher, however, had granted MCI an extension of time for filing its petition.

Joint Petition on Resale

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In a joint petition filed July 1, 1995, AT&T, MCI, WorldCom, Inc., and the Empire Association of Long Distance Telephone Companies (joint petitioners) requested that the Commission direct New York Telephone to eliminate prohibitions on the resale of residential services from its PSC No. 900 Tariff, and that steps be taken to establish "rates, terms and conditions for the wholesale provisioning of New York Telephone's local exchange services."

Citing the history of the development of competition in the interexchange market, the joint petitioners contended that prohibiting the resale of residential and flat rate business services unfairly burdened potential local service competitors. They argued that resale options are critically important to competitors, for they will be unable initially to duplicate the ubiquitous plant of the incumbent, and service resale offers an essential complement to unbundled links, which are available only where the competitor has built appropriate interconnection facilities to the local central office. Since New York Telephone has over 500 such switching sites statewide, joint petitioners contended, the cost of providing ubiquitous service by physical interconnection would be prohibitive. Finally, joint petitioners pointed to the resale of service under the Rochester Open Market Plan, as evidence that such arrangements are workable.

Joint petitioners further contended that while a lifting of the restriction on residential resale is necessary, it would be insufficient without a concomitant examination of the pricing of such wholesale options to ensure the cost savings associated with service resale are adequately reflected.

Notwithstanding AT&T's Petition for Reconsideration concerning Rochester's implementation of the Plan.

DISCUSSION

The pricing and availability of bundled and unbundled exchange access services is critical to the development of competition for local telephone services. Analysis of petitions filed by present and potential local service competitors reveals a need to remove barriers to the commercially feasible resale of bundled exchange access services provided by local exchange carriers, and to ensure that the pricing of the unbundled elements of exchange access (link and port services) carefully balances elements such as cost, competitive equity, and affordability to customers.

In its petition, MCI contends that New York Telephone's rates for link services are clearly excessive in that they are priced at embedded costs. As discussed in the March 1 Order, however, New York Telephone complied fully with the order of May 25, 1994 directing it to establish a new class of service for links, and to price links at "cost." A memorandum accompanying the May 25 Order stated that "[1]ink and port rates should be established at their fully-allocated embedded costs." MCI's petition for reconsideration of the March 1 Order, therefore, will be denied.

Nevertheless, MCI's petition does raise important issues related to the proper pricing of links and ports relative to the bundled retail services with which they compete. We expected such issues to be resolved in <u>Competition II</u> for all companies in the state, including Rochester Telephone Corp.

MCI's concerns that New York Telephone's (and Rochester's) link rates are excessive and a barrier to entry must be addressed; they will be in <u>Competition II</u>.

Bundled resale -- the subject of joint petitioner's petition -- is not inconsistent with the goal of fostering facilities based competition. Rather than being a substitute for facilities, it may be the first step in the process of developing sufficient traffic to justify facilities construction.

The joint petitioners correctly argue, therefore, that prohibitions on resale should be eliminated from New York Telephone's tariff in the interest of facilitating broad-based local service competition. It is necessary, however, to establish appropriate limitations on resale to prevent resellers from repackaging lower-priced residential service for business customers. This was our principal concern in establishing our initial policy prohibiting resale, and it remains valid today. These problems may be satisfactorily resolved by tariff provisions that limit such uses of resale.

Accordingly, existing prohibitions on the resale of residential exchange access services should be lifted with appropriate protections to assure that residential services are not repackaged and resold to non-residential customers. New York Telephone Company will be directed to file tariffs eliminating, to the extent here described, the prohibitions on resale of residential services by January 2, 1996, or to show cause why it should not be required to do so. All other local exchange carriers, both incumbents and new entrants, will be directed to file similar tariffs by July 1, 1996, or to show cause why they should not be required to do so.

The pricing of services for resale should initially reflect all cost differences associated with bulk-provisioning and billing on a wholesale basis as distinct from the costs of provisioning and administering to customers' individual accounts. Other factors may be developed in the course of the investigation described below that should also be considered. New York Telephone's service resale rates should reflect its best estimate of the costs it will avoid! in providing wholesale service.

Accordingly, between the issuance of this Order and the end of the year, the company, staff and other interested parties

Avoided costs should reflect a long-range view rather than short-run transitional abnormalities.

should work collaboratively to consider an appropriate discount rate. To that end, staff will convene a meeting of interested parties, and, as a starting point, New York Telephone should provide the supporting analysis for its proposed discount rate. If consensus cannot be reached with respect to the level of discount before the effective date of the rates, rates will be permitted to become effective on a temporary basis subject to refund.

With respect to the appropriate pricing of unbundled access elements, both staff and other parties have proposed they be based on incremental cost. Before any such proposal may be considered, however, it is important to determine not only the level of those costs, but also the impact on the industry of a decision to price unbundled links and ports at incremental cost. If, for example, unbundled facilities are priced at embedded cost, there is no doubt costs are recovered. Where, however, prices are set at incremental costs, and embedded costs are higher than incremental costs, issues of cost recovery arise. When this issue must be reconciled with the concerns raised by parties generally related to the competitive fairness of wholesale links offered at rates in excess of the bundled exchange access service, the issues become more difficult to resolve. But they must be addressed to facilitate a competitive market structure for local telephony.

Consequently, in the ongoing <u>Competition II</u> proceeding, the costs of service resale and links and ports for incumbent telephone companies should be developed, and related policy and pricing questions should be considered. This investigation should be structured to address the pertinent cost questions for the incumbent local exchange carriers. New entrants need not be studied at this time, as the costs of their facilities are not of great concern at this point given the early stage of their development. In investigating the issues of both bundled and

unbundled resale for the incumbents, the following questions must be addressed:

- (1) What costs are avoided, (or incurred) in the long run under service resale; <u>i.e.</u>, what are the differences in cost when bundled loop services are offered on a wholesale basis, as compared to those incurred when billing and administering to individual customers?
- (2) What are the average incremental, embedded, and separated costs of providing exchange access (loops), links, and ports for residential and business customers? Information on deaveraged costs may be provided if such data are non-anecdotal, clearly supported by an underlying incremental analysis, and provided for all areas served by the company (i.e., company-wide).

New York Telephone and Rochester are directed to file appropriate cost studies, consistent with the cost manuals approved in Case 89-C-198 within 120 days. Other incumbent carriers may file service resale studies (individually or as a group) if they believe their costs to be significantly different from those. Incumbents which do not file studies should clearly indicate which results (either Rochester's, New York Telephone's, or another incumbent's) best reflect its own service resale costs. Studies to support the cost of link facilities need not be filed by carriers other than New York Telephone Company or Rochester absent a specific request by a new entrant for access to such facilities.

It is clear that there are significant issues of fact concerning the various costs which might require a formal

We are currently reviewing a petition filed by AT&T in Rochester's ongoing proceeding (Case 93-C-0103) - Open Market Proceeding) regarding matters such as service resale and our determination here may be subject to that review.

²/Case 89-C198, Letter Approving Cost Study Manual (dated July 13, 1995).

litigation process. Those underlying facts may have to be determined through the evidentiary process; however, the parties are encouraged to follow a less litigious, collaborative process in order to facilitate prompt resolution of the important policy and pricing issues.

The Commission orders:

- 1. MCI Telecommunications Corporation's petition for reconsideration of the March 1 Order in Case 91-C-1174 is denied.
- 2. The joint petition of AT&T Communications of New York, Inc., MCI Telecommunications Corporation, WorldCom, Inc. d/b/a LDDS WorldCom and the Empire Association of Long Distance Telephone Companies, Inc. in Case 95-C-0657 concerning service resale is granted to the extent consistent with this Order, and denied in all other respects.
- 3. New York Telephone Company is directed to file by January 2, 1996, to become effective on 30 days' notice, tariffs consistent with this Order that remove restrictions on the resale of residential services, or to show cause by that date why such action should not be directed. By November 30, 1995, New York Telephone Company shall also file cost support for its estimate of an appropriate wholesale discount.
- 4. All other local exchange carriers shall file by July 1, 1996, tariffs consistent with this Order that remove restrictions on the resale of residential services, or show cause on that date why they should not be directed to do so.
- 5. Consistent with this Order, the parties in the Competition II proceeding shall investigate and develop the costs of service resale and links and ports for incumbent telephone companies, and consider related policy and pricing questions concerning the evolving competition in the provision of exchange access service.
- 6. New York Telephone Company and Rochester Telephone Corp. shall file cost studies consistent with the terms of this Order that identify the costs of provisioning wholesale loop

CASES 95-C-0657, 94-C-0095 and 91-C-1174

services, and the incremental and embedded costs of exchange access loops, links, and ports within 120 days of the date of this Order.

7. These proceedings are continued.

By the Commission,

(SIGNED)

John C. Crary Secretary

METROPOLITAN FIBER SYSTEMS OF FLORIDA, INC. RESPONSES TO BELLSOUTH'S FIRST SET OF INTERROGATORIES

DOCKET NO. 950984-TP

Specific Responses and Objections to BellSouth Interrogatories

REQUEST: BellSouth Interrogatories, Set No. 1

DATED: December 14, 1995

ITEM: 1. Has MFS been a party to any unbundling/resale dockets in states other

than Florida?

RESPONSE: Yes.

RESPONDENT: Timothy Devine.

METROPOLITAN FIBER SYSTEMS OF FLORIDA, INC. RESPONSES TO BELLSOUTH'S FIRST SET OF INTERROGATORIES

DOCKET NO. 950984-TP

REQUEST: BellSouth Interrogatories, Set No. 1

DATED: December 14, 1995

ITEM: 2. If the answer to Interrogatory No. 1 is affirmative, provide the following information:

- (a) the name(s) of the state(s) or jurisdictions in which MFS appeared as a party in such dockets;
- (b) the official name of the proceeding, including any docket number or numbers or other information necessary to fully describe the docket:
- (c) the date any order was rendered in such docket;
- (d) if an order was rendered, state whether it was for an interim/temporary or permanent resolution of the issues addressed therein:
- (e) if an order was rendered, when was it implemented, or if not yet implemented, state when it is to be implemented;
- (f) state the financial arrangements ordered;
- (g) state the technical arrangements ordered;
- (h) describe each network element, function, or capability ordered to be unbundled and the rate for each such element function, or capability, if not provided in response to an earlier interrogatory;
- (i) state whether the local exchange company was ordered to directly connect the entities (i.e. alternative local exchange companies) colocated in the local exchange company's office, with each other as opposed to connecting through the local exchange company's facilities:
- (j) state the total number of access lines in the state;

DOCKET NO. 950984-TP

- (k) state whether the order identified above, if any, has been the subject of a judicial appeal and, if so, the identity of the court, the case number, the current status of the appeal, and the basis of the appeal;
- (l) identify any person who either prepared testimony, prepared and filed testimony, or who gave testimony on MFS's behalf in the proceedings referred to in response to this interrogatory;
- (m) describe, by title or content, or alternatively by date and jurisdiction, the testimony, if written, given in the dockets identified in this interrogatory by these persons identified in (l) above.

MFS-FL objects to the extent that this interrogatory seeks information which is duplicative, oppressive, burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. MFS-FL further objects to the extent that this interrogatory seeks information or documents not in the possession, custody, or control of MFS-FL, or to which BellSouth has equal access. MFS-FL also objects to this interrogatory as burdensome to the extent that it seeks information or documents that are publicly available.

James C. Falvey

Coursel for MFS-FL

RESPONSE: (a), (b), and (c): MFS-FL affiliates have been and are parties to unbundling, resale, and interconnection dockets in a number of states. Several of these state commission's have issued orders governing unbundling. These orders are listed below and will be provided to BellSouth pursuant to BellSouth First Document Requests to MFS-FL. Many states, including but not necessarily limited to Illinois, Michigan, Maryland, Connecticut, Massachusetts, Washington, and Pennsylvania, have ongoing proceedings that are extremely active. Consistent with and without waiving the foregoing objection, the information provided in response to this interrogatory is provided upon information and belief that it is

DOCKET NO. 950984-TP

the most current information regarding proceedings to which MFS-FL affiliates are or have been active parties.

The Michigan Public Service Commission has ordered interim unbundled loops, priced at TSLRIC (\$8 per month per business line; \$11 per month per residence line). In the matter of application of City Signal, Inc., for an order establishing and approving interconnection arrangements with Ameritech Michigan, Case No. U-10647, Opinion and Order at 32-63, Ordering ¶¶ C and D (Feb. 23, 1995). A separate docket has been established to address permanent unbundling (Docket No. U-10860) but no order has been issued to date. A Connecticut affiliate of MFS-FL has an agreement with Southern New England Telephone covering unbundling and resale which was adopted by the Commission in a recent order. DPUC Investigation into the Unbundling of the Southern New England Telephone Company's Local Telecommunications Network, Docket No. 94-10-02, Decision, Unbundling and Resale Stipulation attached to Decision (Sept. 22, 1995). An MFS affiliate is also a party to a separate unbundling docket, Docket No. 95-06-17, in which a draft order was recently issued. Application of the Southern New England Telephone Company, Draft Decision, Docket No. 95-06-17 (Dec. 20, 1995). In New York, the Commission has ordered link unbundling. Re Comparably Efficient Interconnection Arrangements for Residential and Business Links, Case No. 91-C-1174, Order, 152 PUR 4th (May 25, 1994). In a more recent decision in the same case, the New York Commission set rates for unbundled elements at incremental cost. Order Considering Loop Resale and Links and Ports Pricing (Nov. 1, 1995). The Illinois Commerce Commission has likewise ordered unbundled loops. Illinois Bell Telephone Comany Proposed Introduction of a trial of Ameritech's Customers First Plan in Illinois, Order at 38-61, 134-35 (April 7, 1995). A second docket has been opened involving a challenge to Ameritech's implementing tariff (Il. Com. Comm'n No. 5). Docket No. 95-02-96. The Washington Utilities and Transportation Commission has also ordered loop unbundling. Washington Utilities and Transportation Commission v. U S West Communications, Inc., Docket No. UT-941464, Fourth Supplemental Order Rejecting Tariff Filings and Ordering Refiling, Granting Complaints, In Part, at 47-53 (Oct. 31, 1995). The Massachusetts Department of Public Utilities, in Docket No. 94-185, is conducting a proceeding addressing the issue of unbundling, but no order has been issued to date. Similar proceedings are being conducted in Pennsylvania and Maryland. In re Application of MFS Intelenet of Pennsylvania, Inc., Docket No. A-310203F0002 (Pa. P.U.C.); In re Application of MFS Intelenet of Maryland, Inc., Case No. 8584 Phase II (Md.

DOCKET NO. 950984-TP

- P.S.C.); In re Application of MFS Intelenet of Oregon, Inc., CP 14 (Or. P.U.C.). There is also a rulemaking proceeding in Ohio concerning interconnection and unbundling issues, rulemaking 95-845-TP-COI.
- (d) Virtually all of the unbundling arrangements ordered to date have been interim arrangements. At least one exception is Illinois, which ordered a permanent arrangement but where, as discussed above, the permanent tariff is being challenged in a separate proceeding. Consistent with and without waiving the foregoing objections, MFS-FL refers BellSouth to the orders provided in response to BellSouth's First Document Requests to MFS-FL for responsive information.
- (e), (f), (g), (h), and (i) Consistent with and without waiving the foregoing objections, MFS-FL refers BellSouth to the orders cited above, provided in response to BellSouth's First Document Requests to MFS-FL, for responsive information.
- (j) Consistent with and without waiving the foregoing objection, MFS-FL refers BellSouth to the Federal Communications Commission publication Statistics of Communications Common Carriers, Report No. CC 95-73, at 22 (December 1995).
- (k) Orders in Washington (October 31, 1995 Decision cited above) and Connecticut (September 22, 1995 Decision cited above) have been the subject of motions for reconsideration within the same dockets. As noted above, the tariff filed by Ameritech in Illinois has been the subject of a challenge by competitive carriers. Upon information and belief, none of the other state orders cited above have been the subject of a judicial appeal. However, MFS-FL refers BellSouth to the appropriate commission dockets for comprehensive information on this subject.
- (1) MFS-FL has been and is currently involved in numerous proceedings involving the issues of unbundling/resale over a period of several years. This interrogatory is therefore unduly burdensome, duplicative, and oppressive to the extent that it calls for the names of all people ever filing testimony on behalf of MFS-FL affiliates in these dockets. Subject to and without waiving the foregoing objections, testimony was filed by at least the following people: Timothy T. Devine, Gary Ball, Peter Schulz, Marie H. Brockhurst, Alex J. Harris, and Page Montgomery.

DOCKET NO. 950984-TP

(m) MFS-FL has been and is currently involved in numerous proceedings involving the issues of unbundling/resale over a period of several years. This interrogatory is therefore unduly burdensome, duplicative, and oppressive to the extent that it calls for a list of all testimony ever filed by MFS-FL. Subject to and without waiving the foregoing objection, MFS-FL provides, in addition to the comprehensive direct and rebuttal testimony in this docket, a list of the testimony filed in two of the most recent unbundling proceedings in which MFS-FL affiliates have participated:

Oregon:

Direct Testimony of Peter Schulz on behalf of MFS Intelenet of Oregon,

Inc. (March 27, 1995).

Direct Testimony of Marie H. Brockhurst on behalf of MFS Intelenet of

Oregon, Inc. (March 27, 1995).

Direct Testimony of Alex J. Harris on behalf of MFS Intelenet of

Oregon, Inc. (March 27, 1995).

Rebuttal Testimony of Peter Schulz on behalf of MFS Intelenet of

Oregon, Inc. (June 12, 1995).

Massachusetts:

Direct Testimony of Timothy T. Devine on Behalf of MFS

Communications Company, Inc., D.P.U. Docket No. 94-185

(May 19, 1995).

Rebuttal Testimony of Gary J. Ball on Behalf of MFS

Communications Company, Inc., D.P.U. Docket No. 94-185

(August 23, 1995).

RESPONDENT:

Timothy Devine.

DOCKET NO. 950984-TP

REQUEST: BellSouth Interrogatories, Set No. 1

DATED: December 14, 1995

ITEM: 3. Has MFS-FL reached an agreement, either oral or in writing, concerning

unbundling/resale with any local exchange companies in states other than

Florida, whether in a formal docketed matter or otherwise?

MFS-FL objects to this interrogatory to the extent that it is vague, ambiguous, or overbroad.

James Q. Falvey

Counsel for MFS-FL

RESPONSE: Subject to and without waiving the foregoing objection, Mr. Devine is not aware of any oral agreements concerning unbundling/resale. Affiliates of MFS-FL have signed written agreements concerning unbundling/resale. An affiliate of MFS-FL has unbundling and/or resale arrangements with Pacific Bell in California, as detailed in the agreement attached as Exhibit TTD-5 to my rebuttal testimony. An affiliate of MFS-FL has an agreement with New England Telephone for unbundled loops in Massachusetts. Interim Co-Carrier Agreement at 7 (April 14, 1995). A Connecticut affiliate of MFS-FL has an agreement with Southern New England Telephone covering unbundling and resale. DPUC Investigation into the Unbundling of the Southern New England Telephone Company's Local Telecommunications Network, Docket No. 94-10-02, Decision, Unbundling and Resale Stipulation attached to Decision (Sept. 22, 1995).

DOCKET NO. 950984-TP

REQUEST: BellSouth Interrogatories, Set No. 1

DATED: December 14, 1995

ITEM: 4. If your response to Interrogatory No. 3 is affirmative, provide the following information:

- (a) the identity of the parties to such an agreement;
- (b) the date such an agreement was signed, or otherwise became effective;
- (c) the date such an agreement is to be implemented, or if already implemented, the date of implementation;
- (d) a summary of the terms and conditions of such agreement, including the rates for any unbundled offerings or for any services to be resold;
- (e) a listing of each network function, element or capability to be unbundled and the rate therefore, if not previously provided;
- (f) if reduced to writing, identify the agreement by either a description or title in sufficient detail such that the document can be requested for production;

MFS-FL objects to the extent that this interrogatory seeks information which is duplicative, oppressive, burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. MFS-FL further objects to the extent that this interrogatory seeks information or documents not in the possession, custody, or control of MFS-FL, or to which BellSouth has equal access. MFS-FL also objects to this interrogatory as burdensome to the extent that it seeks information or documents that are publicly available.

James C/Falvey

Counsel for MFS-FL

DOCKET NO. 950984-TP

Subject to and without waiving the foregoing objections, RESPONSE: (a) through (f) the California, Connecticut, and Massachusetts agreements are all publicly available. In addition, the California agreement is attached to the Rebuttal Testimony of Timothy T. Devine in this docket as Exhibit TTD-5, and the Massachusetts agreement will be provided in response to document requests in this docket. The Connecticut agreement, is attached to a Decision of the Connecticut DPUC, and will likewise be provided in response to document requests in this docket. DPUC Investigation into the Unbundling of the Southern New England Telephone Company's Local Telecommunications Network, Docket No. 94-10-02, Decision, Unbundling and Resale Stipulation attached to Decision (Sept. 22, 1995). MFS-FL refers BellSouth to the agreements themselves for information responsive to interrogatories 4(a) through 4(f).

Timothy Devine. **RESPONDENT:**

DOCKET NO. 950984-TP

REQUEST: BellSouth Interrogatories, Set No. 1

DATED: December 14, 1995

ITEM: 5. Has MFS agreed to or been directed to offer for resale or unbundling,

any of its own facilities to third parties for any purpose, including the

offering of competitive services.

RESPONSE: Subject to and without waiving the foregoing general objections, upon

information and belief, MFS-FL affiliates have not been directed to offer for

resale or unbundling any of its own facilities to third parties.

DOCKET NO. 950984-TP

REQUEST: BellSouth Interrogatories, Set No. 1

DATED: December 14, 1995

ITEM: 6. If the answer to Interrogatory No. 5 is affirmative, and the agreement or

order was reduced to writing, please describe such agreements or orders with enough detail so that the writing can be requested for production.

RESPONSE: The answer to Interrogatory No. 5 was not affirmative.

DOCKET NO. 950984-TP

REQUEST: BellSouth Interrogatories, Set No. 1

DATED: December 14, 1995

ITEM:

- 9. If not provided in response to an earlier interrogatory, please identify every jurisdiction where:
- (a) MFS is authorized to provide local exchange services;
- (b) whether, in such jurisdictions, MFS provides service over its own facilities or by using resold or unbundled facilities or by using some combination of its own and resold or unbundled facilities;
- (c) identify in detail, including rates paid, the types or kind of unbundled facilities, or resold services that MFS uses, in each jurisdiction, i.e. rsold residential service, unbundled loops, etc.

MFS-FL objects to the extent that this interrogatory seeks information which is duplicative, oppressive, burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. MFS-FL further objects to the extent that this interrogatory seeks information or documents not in the possession, custody, or control of MFS-FL, or to which BellSouth has equal access. MFS-FL also objects to this interrogatory as burdensome to the extent that it seeks information or documents that are publicly available.

James C. Falvey

Coupsel for MFS-FL

RESPONSE: Subject to and without waiving the foregoing objections:

- (a) MFS-FL is currently authorized to provide local exchange service in the following jurisdictions: Florida, New York, Massachusetts, Connecticut, Washington, Maryland, Illinois, Ohio, Oregon, Washington, California, Michigan, Georgia, Texas, and Pennsylvania.
- (b) MFS-FL is currently providing local exchange service in New York, Illinois, and Maryland. Upon information and belief, unbundled or resold facilities are only being utilized in New York.

DOCKET NO. 950984-TP

(c) MFS affiliates utilize resold unbundled loops, and pay rates established by the commission in New York. These rates are detailed in the documents to be provided to BellSouth in response to its document requests in this docket. These rates are subject to the volume discounts described in response to interrogatory No. 11.

DOCKET NO. 950984-TP

REQUEST: BellSouth Interrogatories, Set No. 1

DATED: December 14, 1995

ITEM: 10. If MFS uses resold tariffed services in the jurisdictions where it provides

local service, does it receive a discount from the provider of the resold

services?

MFS-FL objects to the extent that this interrogatory seeks information which is duplicative, oppressive, burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. MFS-FL further objects to the extent that this interrogatory seeks information or documents not in the possession, custody, or control of MFS-FL, or to which BellSouth has equal access. MFS-FL also objects to this interrogatory as burdensome to the extent that it seeks information or documents that are publicly available.

James C. Falvey

Counsel for MFS-FL

RESPONSE: Yes.

DOCKET NO. 950984-TP

REQUEST: BellSouth Interrogatories, Set No. 1

DATED: December 14, 1995

ITEM: 11.

- 11. If the answer to Interrogatory No. 10 is affirmative, for each type or kind of service resold, please:
 - (a) state the basis for the discount;
 - (b) state whether the discount allows the resale of the service on a profitable basis.

MFS-FL objects to the extent that this interrogatory seeks information which is duplicative, oppressive, burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. MFS-FL further objects to the extent that this interrogatory seeks information or documents not in the possession, custody, or control of MFS-FL, or to which BellSouth has equal access. MFS-FL also objects to this interrogatory as burdensome to the extent that it seeks information or documents that are publicly available.

James C. Falvey

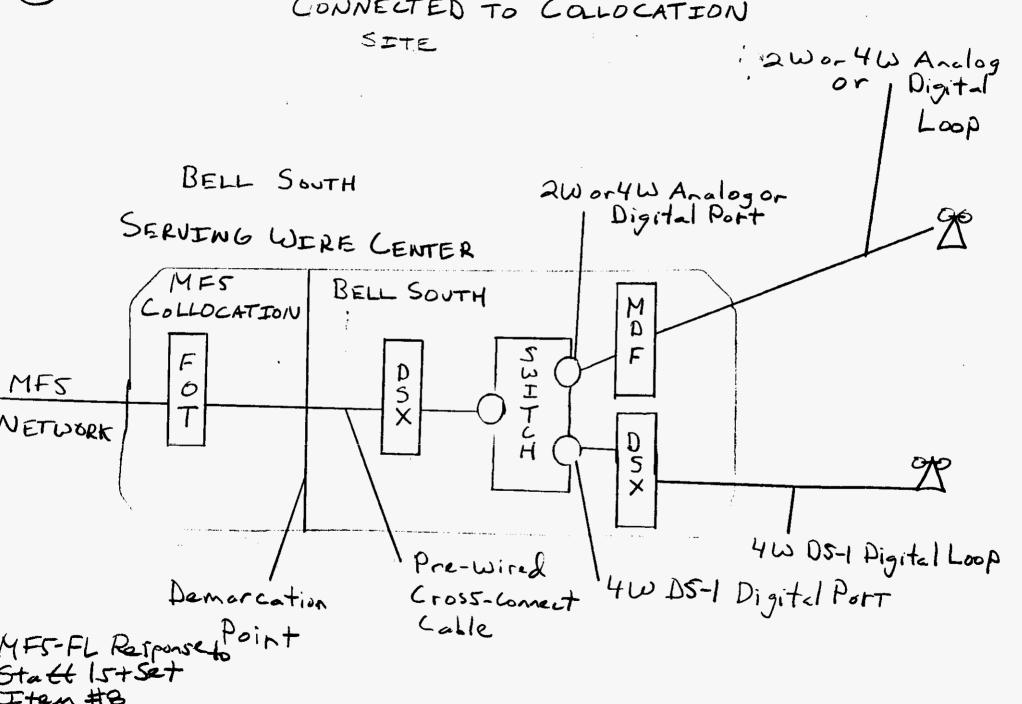
Coursel for MFS-FL

RESPONSE: (a) The discount is a volume-based discount.

(b) At least initially, the discount appears to allow the resale of the service on a profitable basis.



LOOPS AND PORTS COMBINED CONNECTED TO COLOCATION

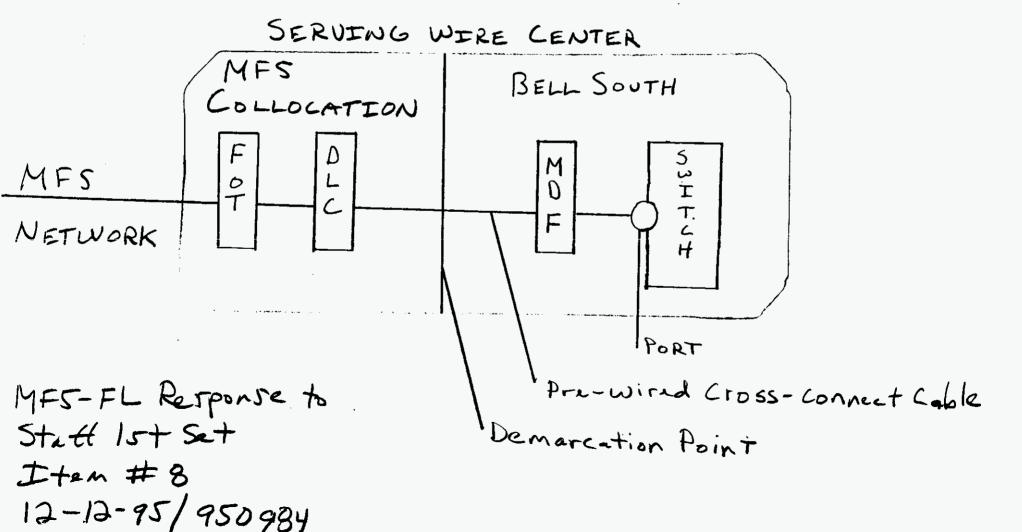


Item #8 12-12-95/950984



2 WOR 4W ANALOG OR PEGETAL, DID AND ISAN PORT CONNECTED TO COLLOCATED DIGITAL LOOP CARRIER

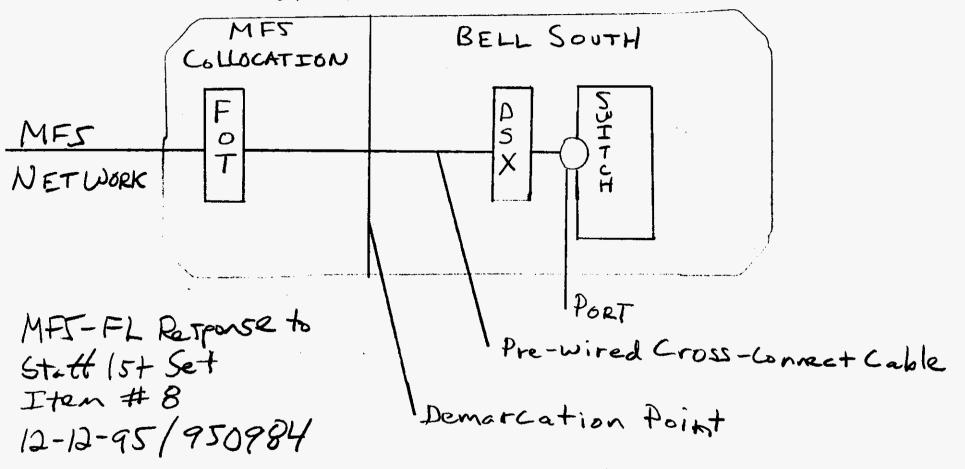
BELL SOUTH





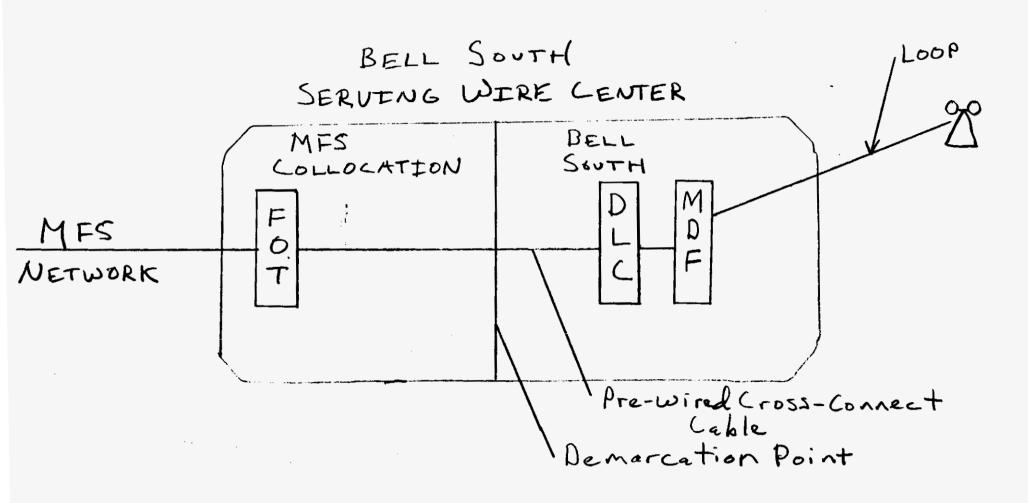
4W DS-1 DIGITAL, DID OR ISAN DIGITAL PORT CONNECTED TO COLLOCATION SITE

BELL SOUTH SERVING WIRE CENTER





DIGITAL LOOP CARRIER AT BELL SOUTH EQUIPMENT LOCATION CONNECTED to 2W OF 4W ANALOG OR DIGITAL ISDN GRADE LOOP



MF5-FL Response to Statt 1st Set Itan #8 12-12-95/950984



12-12-95/950984

4W DS-1 DIGITAL GRAPE LOOP CONNECTED TO COLLOCATION SITE

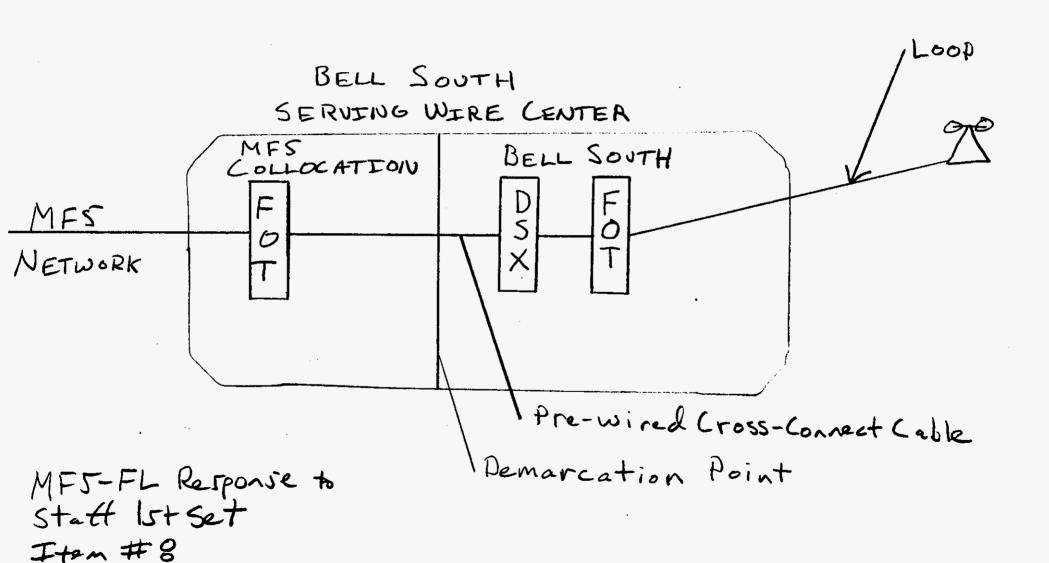


EXHIBIT NO. ____

DOCKET NO.: 950984-TP

WITNESS: TIM DEVINE

PARTY: MFS-FL

DESCRIPTION:

1/5/96 DEPOSITION TRANSCRIPT

PROFFERING PARTY: STAFF

I.D. # TTD-2

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET
NO. 750884-TP EXHIBIT NO. 4

COMPANY! MTS/ Dennie

DATE: 11/56



BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE:

RESOLUTION OF PETITION(S) :
TO ESTABLISH NONDISCRIMINATORY : DOCKET NO.
RATES, TERMS, AND CONDITIONS FOR : 950984-TP

RESALE INVOLVING LOCAL EXCHANGE

COMPANIES AND ALTERNATIVE LOCAL : FILED EXCHANGE COMPANIES PURSUANT TO : 12/11/95

SECTION 364.161, FLORIDA STATUTES :

Deposition of **TIMOTHY DEVINE**, taken pursuant to the stipulations contained herein; the reading and signing of the deposition reserved, before Brenda C. Davis, B-1572, Certified Court Reporter, Notary Public in and for Newton County, Georgia, commencing at 5:27 P.M., on Friday, January 5, 1996, via telephonic means, with the court reporter being present at the offices of BellSouth Telecommunications at 675 W. Peachtree Street, Suite 4300, Atlanta, Georgia.

VERBATIM COURT REPORTERS, INC.

APPEARANCES

FOR BELLSOUTH TELECOMMUNICATIONS, INC.:

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WIGGINS & VILLACORTA

By: LAURA L. WILSON, ATTORNEY AT LAW

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Tallahassee, Florida 32399

VERBATIM COURT REPORTERS, INC.

FOR McCAW COMMUNICATIONS OF FLORIDA, INC.:

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FOR TIME WARNER:

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Tallahassee, Florida 32302

ALSO PRESENT:

Mr. Robert Scheye

VERBATIM COURT REPORTERS, INC.

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WITNESS PAGE

TIMOTHY DEVINE

Cross examination by Mr. Lackey

7

(No Exhibits Marked by the Parties.)

(See the deposition of Aniruddha Banerjee for the court reporter disclosure as required by Georgia law.)

TRANSCRIPT LEGEND

(sic) = Exactly as stated
-- = Break in continuity
... = Sentence incomplete or speaker trailed off
(phonetic) = Exact spelling unknown
...- = Break in phone transmission

VERBATIM COURT REPORTERS, INC.

1	PROCEEDINGS
2	(5:24 P.M.)
3	(Whereupon, Timothy Devine was sworn
4	by Ms. Susan Lavery, Notary Public, at the
5	beginning of the previous deposition taken
6	at 3:44 P.M.)
7	MR. LACKEY: This is the deposition of
8	Mr. Tim Devine, taken in Florida Docket
9	Number 950984-TP.
10	I'm R. Douglas Lackey, appearing on
11	behalf of BellSouth Telecommunications,
12	Inc.
13	Take the appearances, please.
14	MR. FALVEY: This is James C. Falvey
15	on behalf of Metropolitan Fiber Systems of
16	Florida, Inc. And I'm with the law firm
17	of Swidler & Berlin.
18	MR. HORTON: Norman H. Horton, Jr. and
19	Floyd R. Self of Messer, Caparello law
20	firm appearing on behalf of LDDS Worldcom.
21	MR. EDMONDS: This is Donna Canzano,
22	Scott Edmonds and Tracy Hatch on behalf of
23	the Commission Staff.
24	MR. LACKEY: Can we use the same
25	stipulations, Jim?

VERBATIM COURT REPORTERS, INC.

1 MR. FALVEY: Yes. 2 (It is stipulated and agreed by and 3 between counsel appearing for the 4 respective parties that: 5 This deposition is taken pursuant to 6 That objections, except as to the 7 form of the question are reserved until the hearing. And the witness doesn't 8 9 waive reading and signing of the deposition. 10 And that no one will go off the record 11 without the consent of the deponent.) 12 13 Whereupon, TIMOTHY DEVINE 14 was called as a witness herein and, having been 15 first previously duly sworn, was examined and 16 deposed as follows: 17 CROSS EXAMINATION 18 BY MR. LACKEY: 19 Mr. Devine, will you state your name and 20 address for the record? 21

A. Timothy T. Devine, 6 Concourse Parkway, Suite 2100, Atlanta, 30328.

22

23

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25

Q. Mr. Devine, if I ask you a question that's not clear, would you stop me and ask me to repeat

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it and rephrase it so that you can understand it?

A. Yes.

- Q. And if you need to take a break in the next few minutes would you tell me that as well?
 - A. Yes.
- Q. Mr. Devine, I'm almost out of time. I'm going to try to ask you some direct questions. If you would try to focus on my questions, I'd appreciate it.

In an earlier deposition, I asked you whether you thought you were comfortable talking about a basic telephone network and you said you were. Is that still true?

- A. Yes.
- Q. When we speak about a local loop, Mr. Devine, do you understand that to be the facility that runs between a subscriber's premises and the serving central office of the telephone company providing local dial tone to the subscriber?
- A. It would be from the demarkation point at the customer premise, normally a 66 block probably in a telephone closet or on a residence running to -- you know, through the outside plan of the network, maybe through a subscriber line carrier out in a neighborhood, possibly in a building with

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the transmission piece all the way back to the central office to a main distribution frame, possibly into a -- to a subscriber line carrier or multiplexer or any other wiring at the wire center.

- Q. Are you through with your answer?
- A. Yes.

Q. Okay. Let's talk about the simplest local loop and that's one that begins at a residence with a twisted pair on the side of the house and runs back to the central office to provide dial tone for that residential customer.

You would expect that the drop line at the house simply be a twisted pair; wouldn't you?

- A. Yes, it'd be a twisted pair, wired to a network interface unit on a -- be a little block.
- Q. Probably on the side of the house; is that what you mean?
 - A. Yes.
- Q. And that twisted pair would be run back towards the central office and some -- it could either go all the way back to the central office or it could go to some intermediary facility; is that correct?
- A. Yes, there could be some kind of junction box. There could be some kind of additional

electronic there, possibly a subscriber line, something of that nature. And then, eventually traversing back into a wire center and probably first to a main distribution frame.

- Q. And that if it -- if it ran to a subscriber line carrier, would that be something that performed a multiplexing function for a number of twisted pair?
 - A. Yes.

- Q. For instance, and I don't mean to be overly precise, but perhaps the telephone lines from a 50 home subdivision might come to a subscriber line carrier and it might be multiplexed into a different facility and then carried back to the central office?
 - A. Yes, that's fairly common.
- Q. And would there be any other facilities involved in the basic local loop besides the twisted pair, perhaps the subscriber line carrier and then I think you said the main frame at the central office, would that basically comprise the loop?
- A. Yeah, you have the termination at the customer's site. You might have, you know, wiring at the customer's site. You have the outside

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plant. You might have some additional electronics in the outside plant and like you said then you have the wiring back to the office and at the office, you're going to have the main distribution frame and possibly a split or multiplexer, different type device.

- Q. Now, MFS, if I understand, basically interconnects with local exchange companies at either a tandem or a central office; right?
- A. Well, when we do co-location, we -- we get, you know, either space through physical co-location or we get electronics dedicated to us for virtual co-location. And that would be at a serving wire center. It could be housing a tandem. It could be housing an end office.
- Q. What I'm trying to determine is whether MFS would have any need to have the local loop further unbundled down into, for instance, that pair that ran between the subscriber's house and the subscriber loop carrier that we talked about?
- A. Now, I think conceptually probably MFS and BellSouth agree generally with -- in terms of a technical unbundling other than a couple of issues. I mean, we really initially just want to be able to cross connect at a voice grade level at a location

where we have co-location to, let's say, a voice grade two wire or four wire or an ISDN grade loop or a DS-1 level circuit, like for a PBX trunk.

And then, we also secondly want to be able to put our digital loop carrier in the wire center through co-location. And then, possibly as a third option, purchase concentration or multiplexing from BellSouth.

- Q. So, between the central office and the subscriber, you all haven't presently asked for any further disaggregation of the loop? You're more interested in what happens after it hits the central office right now I take it?
 - A. Yes, that's correct.

- Q. And when it hits the central office, what we've been talking about is whether you all will be allowed to locate a digital loop carrier in the central office which would allow you to receive lines from the switch and then basically concentrate them and carry them back to your switch, wherever it is; that's the functionality; isn't it?
- A. Well, actually, you know, we don't consider the digital loop carrier as a switch.
 - O. Yeah, I understand that.

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- A. Yeah, we would want to take a DS-1 from our pot bay at the co-location site and electrically cross connect it, you know, to the digital loop carrier, whether it's our digital loop carrier or your digital loop carrier and then buy voice grade terminations into the digital loop carrier.
- Q. And what we would do is we would then terminate these voice grade lines into the digital loop carrier that you say you owned and co-located, and then behind that digital loop carrier you would perform whatever electronical service you needed to perform to carry back to your switch; correct?
 - A. Yes, exactly.

- Q. And so one of the issues that exist in this with regard to unbundling -- let me ask you this differently. Is the location of a digital loop carrier in a BellSouth CO an unbundling issue?
- A. Well, primarily we want to be able to have the network unbundled so we can cross connect voice grade loops to our virtual co-location digital loop carrier equipment.

If for some reason, you know, it becomes an obstacle with BellSouth, I mean, we feel through the FCC process -- I know when co-location came out

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a few...-...I sent a bona-fide request to cross connect at a voice grade level. You could do it. The LEC had to respond within 45 days and we could put any kind of multiplexing type equipment into the virtual co-location or physical co-location arrangement. So, we already feel we have a right to do that. But we'd like the Commission in this docket to order that we can.

And then secondly, we would like to have BellSouth provide us an opportunity to have them offer digital loop carrier multiplexing concentration capability at the wire center.

So, we don't have to have it out in a building or at a -- you know, whether it's an apartment complex or a business building, we just want to get it at the wire center.

- Q. Well, I guess the question I was hoping to have asked was do you have any belief or understanding or knowledge that Southern Bell -- BellSouth currently has those digital loop carriers in those COs, central offices?
- A. I couldn't sign an affidavit that says they do, but it's technology that's very commonly used within the local exchange network, and LECs either place them at wire centers or in, you know,

- let's say a subdivision area or in a building. So, if BellSouth is anything like any other LEC in the country, it's fairly common to put digital loop carriers in wire centers. And, in fact, I was very involved in unbundled loops in New York with New York Telephone. And it's very common for them to have digital loop carriers in the buildings in New York. And also, in fact, in Massachusetts.
- Q. Is it your position that a digital loop carrier and what has sometimes been referred to as a concentrator are the same piece of equipment?
 - A. Yes.

- Q. Now, is it your position that if BellSouth does not have a digital loop carrier/concentrator in a central office that BellSouth should be obligated to put one in that central office so that you can have the use of it?
- A. No, if BellSouth were to allow us to and if the Commission were to order that we could utilize digital loop carriers through virtual colocation and if you did not have digital loop carriers at that wire center, you would not be --we would not feel that you would be obligated to put them in the wire center.
 - Q. Okay. So, certainly MFS today is not

complaining that BellSouth has digital loop carriers in its central offices and is simply refusing to let you have access to them or to utilize them?

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- A. Now, discussions about the subject -- and I think -- I mean -- I don't -- I don't think BellSouth has said, no, they won't do that. They haven't said yes. So, I don't know if they have any at wire centers or don't. I'm assuming if their network is like anybody else's they probably do. So, I don't really know their reasoning on that issue to be honest with you.
- Q. What I want to make sure on the record is is that it's not a case where BellSouth has said, "Yep, we got them, but you can't have them"?
- A. Yeah, I don't -- I don't think they've said that to me, but I don't know why they haven't really just said, "Okay. You can have whatever you want." I think in -- a couple of months ago, I had discussions with BellSouth and, you know, they did -- you know, what possibly it would cost to do concentration if they provided it.

So, it's something that -- that I've discussed with them and -- and they really haven't -- you know, they haven't said a hundred percent no

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and they haven't said a hundred percent yes. I mean, my attitude is when you're having a discussion with anybody for an agreement or whatever, until you have a signed document it really doesn't really matter. So, if I gave you a document that said I'd pay you \$100 a month or \$100 a minute to terminate a call, and you thought that was great but I never signed it with you, it really doesn't mean much.

So, we never really agreed on exactly how BellSouth could or would do that.

- Q. But the short answer is you're not claiming that we have them, we told you we have them, you know we have them and we're just saying no just to say no?
- A. No, 'cause, in fact, you know, BellSouth has floated -- at my request, they've actually a couple of months ago said that they're considering it and they actually showed me some numbers on it. So, I mean, they're thinking about it, I'd say.
- Q. Now, is there -- we've talked about the local loop, and I think -- and I'm not -- I'm just trying to repeat what we said. We've agreed that below or beyond the CO -- between the CO and the subscriber, we're really not talking about

unbundling the loop into further components. And
we've talked about digital loop carriers.

Is there any other unbundled aspect of the network that you all are you interested in that we haven't talked about here today?

- A. In terms of transition and multiplexing?
- Q. Yeah.

- A. You know, no. The other items are really in a different...
 - Q. Okay.
- A. I mean, just so you understand, Mr.

 Lackey, I mean, we've -- I've always had good and
 fluid discussions with BellSouth on both
 interconnection and unbundling, and we just haven't
 been able to reach agreement on these issues.

I think on a lot of the interconnection issues, we're probably pretty close, like on the platform stuff. But we're never able to get down to actually agreeing with something. I think since they signed their agreement with a bunch of parties, they feel that kind of that's the agreement at this point and they don't really want to stretch from it.

So, I -- I think there's probably a lot of opportunity for agreement between the companies,

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but I think, you know, positions are different and there just was -- couldn't reach agreement in writing.

- Q. Now, there was some discussion earlier today about imputation. Is imputation a subject about which you know something?
- A. Yes, in terms of how it affects us with competition in the local exchange market; yes, it is.
- Q. And I think the context in which it was raised had to do with charging a special access rate for a local loop and imputing that rate into BellSouth rates. Were you present during that discussion?
 - A. I was for part of it.
 - Q. Okay.

A. Primarily when we're looking at imputation -- well, if it's interconnection and let's say you're charging me, let's say, half a penny a minute and you're saying that, okay, your incremental cost is half a penny a minute to terminate a call, then your incremental cost to originate a call is half a penny then your additional cost of billing and collection. You have administrative fees. You have to calculate

those costs into your retail rates to your customers and also if you were to charge us for a unbundled loop, you would also impute that price that you charge us for a unbundled loop and any other of your costs into the price of your retail rate for that service.

- Q. All right. Let's just talk about the loop, since this is the unbundling docket. I think the loop under the special access tariff in Florida is \$21. Does that seem about right to you?
- A. Yeah, subject to check, you know, that sounds in the ball park; yes.
- Q. Now, do you know what the average business rate in Florida is?
 - A. I believe it's in the upper \$20 range.
 - Q. Okay. And that's just for the basic service. That doesn't include any bells or whistles like hunting and that sort of thing; does it?
 - A. Oh, yeah. That would be the line, the capability for basic service. So, that would be basic service and also assuming, of course, flat rated service. So that's why our concern about when we're paying a permanent rate, you know, you have to calculate that into the total, you know,

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retail cost when you look at the whole equation.

- Q. All right. But for the purpose of the unbundled loop, clearly the price that -- that Southern Bell has agreed to with the other carriers, that special access rate of I think we said \$21, that rate does not exceed what business customers in Florida pay for business lines; correct?
- A. Well, for a line versus a total charge, no. But we really feel that you should price services based on long run incremental cost. I mean, as you asked me earlier and, you know, MFS is very candid about this, initially getting into the business in the first phase of our development, we are focusing on the business market. If BellSouth were to price loops on an incremental basis, that would make it, you know, opportune for us to get into the residential market more aggressively 'cause residential flat rate service, I believe, is around \$10 a month in Florida.
- Q. Okay. And you would agree, wouldn't you, as a good businessman that -- that neither you nor BellSouth other than for societal purposes should be required to price a service below cost; should it?

A. No. I mean, what we feel on the issue is imputation and costing for loops is, loops should be priced at long running incremental cost and then there should be an imputation standard that should try to be met. But currently based on what's going on in Florida, rates are frozen. If for some reason BellSouth were to file a LRIC cost study for loops and if they were to show that their LRIC cost would not meet an imputation standard, then currently statutorially the rates could not be raised anyway for a BellSouth subscriber.

So, how we look at it is, you know, things such be based on LRIC. There should be an imputation standard that should be looked at in terms of looking at call terminations, loops and everything in calculating interim number portability and the like. And then, if for some reason, the imputation standard were not met based on the price of a loop, then you just -- you would still have to defer it to long run incremental cost.

Now, I really don't feel -- and our corporation doesn't feel that any company should necessarily have to price a service below cost.

Q. Now...

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1	Areasonable 'cause we wouldn't want		
2	the same thing imposed upon us.		
3	Q. Now, with regard to that local loop, have		
4	you done any study or analysis to determine what		
5	the incremental cost of a local loop in Florida in		
6	BellSouth operating territory would be?		
7	A. No, I haven't. I mean, what we based our		
8	position on in terms of the range would be studies		
9	I know in Massachusetts. Nynex filed a study that		
10	showed a a business loop cost, incremental cost		
11	at \$5 and a residence cost at \$7. That was a		
12	statewide average. In Michigan, the Commission		
13	ordered loop rates of like \$8 and \$11. And		
14	Illinois had rates in that range.		
15	I just gather to think that, you know,		
16	BellSouth costs should be somewhere in that range		
17	in terms of magnitude.		
18	I don't know if BellSouth's ever filed a		
19	LRIC study for a loop. Have or not.		
20	Q. But the information you referred to was		
21	all from other states I believe besides Florida;		
22	correct?		
23	A. I mean, we we feel it's the		
24	Commission's jurisdiction to monitor that. All		

we're asking for is that BellSouth have to file

1	LRIC studies. Only the Commission, the Commission		
2	staff to make the judge in terms of what the actual		
3	rates should be.		
4	Q. Just a minute, please. Mr. Devine, I've		
5	decided to give myself a break and I'm going to		
6	quit eleven minutes early.		
7	MR. LACKEY: I'm through asking		
8	questions. Does anybody have anything?		
9	MR. HATCH: I'm not sure if anybody's		
10	left. This is Tracy, but we don't have		
11	anything.		
12	(Whereupon, the foregoing matter was		
13	concluded at 5:50 P.M.)		
14	-000-		

CERTIFICATE

STATE OF GEORGIA)
COUNTY OF NEWTON)

I, Brenda C. Davis, Certified Court Reporter, and Notary Public in and for Newton County, Georgia, do hereby certify that the foregoing deposition was taken down by me, as stated in the caption; that the foregoing questions and answers were reduced to print by me; that the foregoing pages 4 through 23 represent a true, correct, and complete transcript of the evidence given by the witness, TIMOTHY DEVINE, who was first duly sworn by a notary public present with the witness in Atlanta, Georgia; that I am not a relative, employee, attorney or counsel of any of the parties; that I am not a relative or employee of attorney or counsel for any of said parties; nor am I financially interested in the outcome of the action.

This, the 7th day of January, 1996.

BRENDA C. DAVIS, CCR-B-1572

Notary Public

My commission expires: December 12, 1999.

VERBATIM COURT REPORTERS, INC.

ERRATA SHEET

I hereby certify that I have read or have had read to me the foregoing and within Pages 4 through 24 and no changes are required:				
TIMOTHY DEVINE				
Sworn to and subscribed before me, this				
day of, 1996.				
Notary Public				
My commission expires:				

I hereby certify that I have read or have had read to me the foregoing Pages 4 through 24 and I wish to make the following changes:				
Page::				
Page::				
Page:Line::				
Page:Line::				
Page::				
TIMOTHY DEVINE				
Sworn to and subscribed before me, this				
day, 1996.				
Notary Public				
My commission expires:				

VERBATIM COURT REPORTERS, INC.

(bcd)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE:

RESOLUTION OF PETITION(S) :
TO ESTABLISH NONDISCRIMINATORY : DOCKET NO.
RATES, TERMS, AND CONDITIONS FOR : 950984-TP
RESALE INVOLVING LOCAL EXCHANGE :
COMPANIES AND ALTERNATIVE LOCAL : FILED
EXCHANGE COMPANIES PURSUANT TO : 12/11/95
SECTION 364.161, FLORIDA STATUTES :

AMENDED CERTIFICATE

I, Brenda C. Davis, Certified Court Reporter, state that the deposition of **TIMOTHY DEVINE** was transcribed and a copy mailed to Mr. Falvey, attorney for MFS, on or about January 8, 1996, advising him to read and sign the deposition within the time parameters allowed under Florida Law, and return the executed Errata Sheet to my office.

As a hearing has been scheduled in this matter for Tuesday, January 9, 1996, the original is hereby sealed for use at said hearing, with the provision that when/if the Errata Sheet is returned, it will be forwarded to the appropriate parties; this, the 7th day of January, 1996.

BRENDA C. DAVIS, CCR-B-1572 Notary Public

My commission expires: December 12, 1999.

VERBATIM COURT REPORTERS, INC.

CASE No. 88, 627

Exhibit (DGP-1)

Don Price

Page 1 of 7

ACADEMIC AND PROFESSIONAL QUALIFICATIONS OF DON PRICE

Academic Background:

My academic background is in the social sciences. I received my Bachelor of

Arts degree in Sociology from the University of Texas at Arlington in May of 1977,

and was awarded a Master of Arts degree in Sociology by the University of Texas at

Arlington in December, 1978.

Professional Qualifications:

From January, 1979 until October, 1983, I was employed by the Southwest

telephone operating company of GTE where I held several positions of increasing

responsibility in Economic Planning where I became acquainted with such local

exchange telephone company functions as the workings and design of the local

exchange network, the network planning process, the operation of a business office,

and the design and operation of a large billing system.

From November 1983 until November 1986, I was employed by the Public

Utility Commission of Texas (PUCT). I initially provided analysis and expert testimony

on a variety of rate design issues including setting of rates for switched and special

access services, MTS, WATS, EAS, and local exchange service. In 1986 I was

promoted to Manager of Rates and Tariffs, and was directly responsible for staff

FLORIDA PUBLIC SERVICE COMMISSION

Exhibit ___ (DGP-1) Don Price Page 2 of 7

analyses of rate design and tariff issues in all telecommunications proceedings before the Texas Commission.

I have been with MCI for nearly nine years, all of which has been in the regulatory arena. In my present position, I have broad responsibilities in monitoring and participating in telephone-related state regulatory and legislative proceedings throughout the Southwestern Bell and BellSouth service areas, primarily focused on the policy issues surrounding local competition.

I have presented testimony before a number of state commissions, including the Public Service Commission of Arkansas, the Public Service Commission of Florida, the Kansas Corporation Commission, the Louisiana Public Service Commission, the Missouri Public Service Commission, the North Carolina Utilities Commission, the Corporation Commission of the State of Oklahoma, the Public Service Commission of South Carolina, the Public Service Commission of Tennessee, and the Public Utility Commission of Texas. A list of those proceedings in which I have furnished testimony is provided on the following pages.

Exhibit ___ (DGP-1) Don Price Page 3 of 7

TESTIMONY PRESENTED BEFORE REGULATORY UTILITY COMMISSIONS

Arkansas

Docket No. 91-051-U: IN RE IMPLEMENTATION OF TITLE IV OF THE AMERICANS WITH DISABILITIES ACT OF 1990

Docket No. 92-079-R: IN THE MATTER OF A PROCEEDING FOR THE DEVELOP-MENT OF RULES AND POLICIES CONCERNING OPERATOR SERVICE PROVIDERS

Florida

Docket No. 941272-TL: IN RE: SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY'S PETITION FOR APPROVAL OF NUMBERING PLAN AREA RELIEF FOR 305 AREA CODE

Docket No. 950696-TP: IN RE: DETERMINATION OF FUNDING FOR UNIVERSAL SERVICE AND CARRIER OF LAST RESORT RESPONSIBILITIES.

Docket No. 950737-TP: IN RE: INVESTIGATION INTO TEMPORARY LOCAL TELEPONE NUMBER PORTABILITY SOLUTION TO IMPLEMENT COMPETITION IN LOCAL EXCHANGE TELEPHONE MARKETS.

Kansas

Docket No. 190,492-U: IN THE MATTER OF A GENERAL INVESTIGATION INTO COMPETITION WITHIN THE TELECOMMUNICATIONS INDUSTRY IN THE STATE OF KANSAS

Louisiana

Docket No. U-17957: IN RE: INVESTIGATION OF OPERATING PRACTICES OF ALTERNATIVE OPERATOR SERVICES PROVIDERS TO INCLUDE RATES AND CHARGES

DOCUMENT NUMBER-DATE

11298 NOV 148

FPSC-RECORDS/REPORTING

Exhibit ___ (DGP-1) Don Price Page 4 of 7

- Docket No. U-19806: IN RE: PETITION OF AT&T COMMUNICATIONS OF THE SOUTH CENTRAL STATES, INC., FOR REDUCED REGULATION OF INTRA-STATE OPERATIONS
- Docket No. U-20237: IN RE: OBJECTIONS TO THE FILING OF REDUCED WATS SAVER SERVICE RATES, INTRALATA, STATE OF LOUISIANA
- Docket No. U-20710: IN RE: GENERIC HEARING TO CLARIFY THE PRIC-ING/IMPUTATION STANDARD SET FORTH IN COMMISSION ORDER NO. U-17949-N ON A PROSPECTIVE BASIS ONLY, AS THE STANDARD RELATES TO LEC COMPETITIVE TOLL OFFERINGS

<u>Missouri</u>

- Case No. TO-87-42: IN THE MATTER OF SOUTHWESTERN BELL TELEPHONE COMPANY FILING ACCESS SERVICES TARIFF REVISIONS AND WIDE AREA TELECOMMUNICATIONS SERVICE (WATS) TARIFF, INDEX, 6th REVISED SHEET, ORIGINAL SHEET 16.01
- Case No. TO-95-289, et al: IN THE MATTER OF AN INVESTIGATION INTO THE EXHAUSTION OF TELEPHONE NUMBERS IN THE 314 NUMBERING PLAN AREA

North Carolina

Docket No. P-100, SUB 119: IN THE MATTER OF: ASSIGNMENT OF N11 DIALING CODES

Oklahoma

Consolidated Dockets PUD NO. 000237: IN THE MATTER OF THE APPLICATION OF SOUTHWESTERN BELL TELEPHONE COMPANY FOR AN ORDER APPROVING PROPOSED CHANGES AND ADDITIONS IN APPLICANTS' WIDE AREA TELECOMMUNICATIONS SERVICE PLAN TARIFF; and

PUD NO. 000254: IN THE MATTER OF THE APPLICATION OF SOUTHWEST-ERN BELL TELEPHONE COMPANY FOR AN ORDER APPROVING PROPOSED

Exhibit ___ (DGP-1) Don Price Page 5 of 7

ADDITIONS AND CHANGES IN APPLICANTS' ACCESS SERVICE TARIFF AND WIDE AREA TELECOMMUNICATIONS SERVICE PLAN TARIFF

Consolidated Dockets PUD NO. 920001335: IN THE MATTER OF THE APPLICATION OF THE OKLAHOMA RURAL TELEPHONE COALITION, GTE SOUTHWEST, INC., ALLTEL OKLAHOMA, INC., AND OKLAHOMA ALLTEL, INC. FOR AN ORDER ADOPTING THE OKLAHOMA ALTERNATIVE SETTLE-MENT PLAN; and

PUD NO. 920001213: IN THE MATTER OF THE APPLICATION OF SOUTH-WESTERN BELL TELEPHONE COMPANY FOR AN ORDER IMPLEMENTING TERMINATING ACCESS CHARGES IN LIEU OF INTRALATA TOLL AND SURCHARGE POOLS; and

PUD NO. 940000051: IN RE: INQUIRY OF THE OKLAHOMA CORPORATION COMMISSION REGARDING WHETHER THE INTRALATA TOLL POOL AND SURCHARGE POOL SHOULD CONTINUE TO EXIST IN THE STATE OF OKLAHOMA

South Carolina

Docket No. 92-606-C: IN RE: GENERIC PROCEEDING TO REVIEW THE USE OF N11 SERVICE CODES

<u>Tennessee</u>

- Docket No. 93-07799: IN RE: SHOW CAUSE PROCEEDING AGAINST CERTIFIED IXCS AND LECS TO PROVIDE TOLL FREE, COUNTY-WIDE CALLING
- Docket No. 94-00184: INQUIRY FOR TELECOMMUNICATIONS RULE-MAKING REGARDING COMPETITION IN THE LOCAL EXCHANGE
- Docket No. 93-08793: IN RE: APPLICATION OF MCI METRO ACCESS TRANS-MISSION SERVICES, INC. FOR AUTHORITY TO OFFER LOCAL EXCHANGE SERVICES WITHIN TENNESSEE
- Docket No. 95-02499: UNIVERSAL SERVICE PROCEEDING, PART 1 -- COST OF UNIVERSAL SERVICE AND CURRENT SOURCES OF UNIVERSAL SERVICE SUPPORT, AND PART 2 -- ALTERNATIVE UNIVERSAL SERVICE SUPPORT MECHANISMS

<u>Texas</u>

- Docket 4992: APPLICATION OF GENERAL TELEPHONE COMPANY OF THE SOUTHWEST FOR A RATE/TARIFF REVISION
- Docket 5113: PETITION OF PUBLIC UTILITY COMMISSION FOR AN INQUIRY CONCERNING THE EFFECTS OF THE MODIFIED FINAL JUDGMENT AND THE ACCESS CHARGE ORDER UPON SW BELL AND THE INDEPENDENT TELE-PHONE COMPANIES OF TEXAS (Phase II)
- Docket 5610: APPLICATION OF GENERAL TELEPHONE COMPANY OF THE SOUTHWEST FOR A RATE INCREASE
- Docket 5800: APPLICATION OF AT&T COMMUNICATIONS FOR AUTHORITY TO IMPLEMENT "REACH OUT TEXAS"
- Docket 5898: APPLICATION OF SAN ANGELO FOR REMOVAL OF THE EXTENDED AREA SERVICE CHARGE FROM GENERAL TELEPHONE COMPANY OF THE SOUTHWEST'S RATES IN SAN ANGELO, TEXAS
- Docket 5926: APPLICATION OF SOUTHWESTERN BELL TELEPHONE COMPANY
 TO ESTABLISH FEATURE GROUP "E" (FGE) ACCESS SERVICE FOR RADIO
 AND CELLULAR COMMON CARRIERS
- Docket 5954: INQUIRY OF THE PUBLIC UTILITY COMMISSION OF TEXAS INTO OFFERING EXTENDED AREA SERVICE IN THE CITY OF ROCKWALL
- Docket 6095: APPLICATION OF AT&T COMMUNICATION FOR A RATE INCREASE
- Docket 6200: PETITION OF SOUTHWESTERN BELL TELEPHONE COMPANY FOR AUTHORITY TO CHANGE RATES
- Docket 6264: PETITION OF THE GENERAL COUNSEL FOR INITIATION OF AN EVIDENTIARY PROCEEDING TO ESTABLISH TELECOMMUNICATIONS SUBMARKETS
- Docket 6501: APPLICATION OF VALLEY VIEW TELEPHONE COMPANY FOR AN AMENDMENT TO CERTIFICATE OF CONVENIENCE AND NECESSITY

Exhibit ___ (DGP-1) Don Price Page 7 of 7

- Docket 6635: APPLICATION OF MUSTANG TELEPHONE COMPANY FOR AUTHORITY TO CHANGE RATES
- Docket 6740: APPLICATION OF SOUTHWEST TEXAS TELEPHONE COMPANY FOR RATE INCREASE
- Docket 6935: APPLICATION OF SOUTHWESTERN BELL TELEPHONE COMPANY
 TO INTRODUCE MICROLINK II PACKET SWITCHING DIGITAL SERVICE
- Docket 8730: INQUIRY OF THE GENERAL COUNSEL INTO THE MEET-POINT BILLING PRACTICES OF GTE SOUTHWEST, INC.
- Docket 8218: INQUIRY OF THE GENERAL COUNSEL INTO THE WATS PRORATE CREDIT
- Docket 8585: INQUIRY OF THE GENERAL COUNSEL INTO THE REASONABLE-NESS OF THE RATES AND SERVICES OF SOUTHWESTERN BELL TELEPHONE COMPANY
- Docket 10127: APPLICATION OF SOUTHWESTERN BELL TELEPHONE COMPANY
 TO REVISE SECTION 2 OF ITS INTRASTATE ACCESS SERVICE TARIFF
- Docket 11441: PETITIONS OF INFODIAL, INC., AND OTHERS FOR ASSIGNMENT OF ABBREVIATED N11 DIALING CODES
- Docket 11840: JOINT PETITION OF SOUTHWESTERN BELL TELEPHONE COMPANY AND GTE SOUTHWEST, INC. TO PROVIDE EXTENDED AREA SERVICE TO CERTAIN COMMUNITIES IN THE LOWER RIO GRANDE VALLEY
- Docket 14447: PETITION OF MCI TELECOMMUNICATIONS CORPORATION FOR AN INVESTIGATION OF THE PRACTICES OF SOUTHWESTERN BELL TELEPHONE COMPANY REGARDING THE EXHAUSTION OF TELEPHONE NUMBERS IN THE 214 NUMBERING PLAN AREA AND REQUEST FOR A CEASE AND DESIST ORDER AGAINST SOUTHWESTERN BELL TELEPHONE COMPANY

EXHIBIT NO. _____

DOCKET NO.: 950984-TP

WITNESS: DON PRICE

PARTY: MCIMETRO

DESCRIPTION:

STAFF'S 1ST SET OF INTERROGATORIES TO MCIMETRO NOS. 1-13 AND ATTACHMENT I AND PORTIONS OF ATTACHMENT II

PROFFERING PARTY: STAFF

I.D. # DGP-1

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET

NO. 950784-FP EXHIBIT NO. 9

COMPANY WITNESS: WITNESS: WITNESS: Prince Prince

DATE: 1/11/36

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Resolution of petition(s))
to establish nondiscriminatory)
rates, terms, and conditions for) Docket No. 950984-TP
resale involving local exchange)
companies and alternative local) Served: January 2, 1996
exchange companies pursuant to)
Section 364.161, Florida Statutes.)

MCI METRO ACCESS TRANSMISSION SERVICES, INC.'S RESPONSES TO STAFF'S FIRST SET OF INTERROGATORIES (NOS. 1-13)

MCI Metro Access Transmission Services, Inc. (MCImetro) hereby responds to the Staff's First Set of Interrogatories.

The answers to these interrogatories were provided by:

Don Price
Regional Manager, Local Competition Policy
MCI Telecommunications Corporation
701 Brazos, Suite 600
Austin, TX 78701

RESPONSES TO INTERROGATORIES

1. Please provide a detailed outline of your proposed unbundling/resale agreements with BellSouth.

MCImetro Response: MCI believes that the unbundling arrangement between incumbent LECs and ALECs must address several key issues in order to foster the development of competition in Florida local exchange markets. The arrangement needs to address the availability of unbundled LEC network components, including local loops, loop transport, and loop concentration as well as appropriate pricing of unbundled components. Ancillary issues also to be resolved include availability of order entry, repair, testing, and other administrative systems required for the provision of unbundled facilities, on a mechanized basis.

In order to provide competitive local exchange services, ALECs will need to use these facilities (local loops, loop transport, loop concentration, and administrative systems) of the

incumbent LECs in areas where the new entrants do not have their own loops in place. It is still unclear whether alternative loop providers can exist in all locations. It is possible, at least for some time to come, that loop plant in some locations may exhibit the characteristics of a natural monopoly. ALECs must be allowed to purchase the components listed above on an unbundled basis in order to be able to provide the other components of local service, such as switching, billing, and customer service, that they can provide as efficiently, or more efficiently than the incumbent. Any portion of the bundle known as basic local exchange service that an ALEC can provide more efficiently than the incumbent enhances the overall efficiency of telecommunications. Consumers of local exchange service will even benefit from competition among providers that are no more than equally efficient at providing these additional components of local service, as competition will lower prices and force providers, including the incumbents, to improve service quality.

MCImetro and BellSouth have held discussions on the above issues and have not been able to come to agreement on resolution of all matters. As part of those discussions, MCImetro's proposal has included the following suggested solutions:

- BellSouth should make available local loops, loop transport, and loop concentration on an unbundled A local loop involves those basic network components which provide a connection between the end user's premises and the LEC's central office The network elements involved would switch. include the buried cable or aerial facility(ies) and the line card or other terminating device inside the LEC's central office. Loop concentration is the function of concentrating the traffic from a number of loops onto a single channel. Loop transport is the function of connecting concentrated loops from the central office of the incumbent LEC to the network of a new entrant. New entrants will need to be able to purchase all three of these components on an unbundled basis if they are to be able to offer service in areas where they do not have loops in place.
- Upon request, BellSouth should make available any other basic network function, or "BNF" of its network, that it is technically feasible to

unbundle. This includes the list of elements requested by MFS. A BNF, or "building block", is the most disaggregated function of the local exchange network that is capable of being unbundled and offered separately as a distinct service. Because the provision of local exchange service has not previously been open to competitive entry, it is not possible, a priori, to identify every BNF that can be efficiently provided by more than one firm and subject to competitive supply. Competitive providers should not be required to purchase a bundled LEC service in order to provide one component that may be unbundled from the tariffed service.

- If the Commission sets rates, terms, and conditions for unbundled elements of BellSouth's network, those rates or other arrangements should be tariffed and should be available on a nondiscriminatory basis to all parties similarly situated.
- The appropriate price for these unbundled elements should be set at direct economic cost, which is total service long run incremental cost ("TSLRIC"). Any other level of price above cost would preclude BellSouth from passing an imputation test and would allow BellSouth to create a price squeeze. When a firm that supplies essential inputs to a competitor recovers less from its end users for those essential inputs than it charges its competitor, the competitor faces a price squeeze. Under a price squeeze, an equally efficient or even a more efficient (depending upon the amount of the price squeeze) firm will be effectively prevented from entering the market. Given the flat rates charged for local exchange service, a price for loops that is greater than TSLRIC will create a price squeeze for new entrants.
- BellSouth should provide, on a mechanized basis, access to order entry, repair, testing, and any other administrative systems required for the efficient use of unbundled facilities. To the extent that an ALEC provides services using some

BellSouth network components, the ALEC's success in the marketplace can be easily controlled by BellSouth. Poor service quality, missed dates for turning up service, or late installations — all of which BellSouth can impact in an unbundled service environment — will have an extremely harmful impact upon ALECs such as MCImetro. To prevent such anticompetitive results, intercompany procedures must be established between incumbents and ALECs that give ALECs automated access to these order entry, repair, testing, and any other related administrative systems.

a. Have the parties agreed on any specific items? If so, what items?

MCImetro Response: There has been no explicit agreement yet reached on specific issues. MCImetro believes, however, that general agreement exists on the following issues:

- 1) that a specific set of network elements (i.e. local loop, line-side port, loop concentration, collocation, and signalling) should be made available on an unbundled basis;
- 2) that common channel signaling should be provided on all trunk types that support CCS7 and that industry-standard 911 trunks and operator services trunks should be provided; and
- 3) that ALECs require access to the "municipal street address guide" and that inter-company procedures must be developed to support mechanized population of the "Automatic Line Identification" database in order to support 911 service.
- b. What specific items remain at issue?

MCImetro response: All other issues remain unresolved, including, but not limited to, the following:

1) compensation for elements of local loop unbundling;

- 2) the extent of future unbundling that BellSouth may be required to accomplish and the procedures for achieving such additional unbundling;
- 3) the necessary mechanized intercompany procedures to support the ordering and testing of unbundled components, and other administrative functions;
- 4) the necessary mechanized intercompany procedures to support repair services, including referral of trouble tickets, trouble isolation in interconnection facilities, and trouble isolation on unbundled facilities;
- 5) the provision of billing and collection functions; and
- 6) the appropriate technical arrangements for the provision by BellSouth to MCImetro of unbundled local loops.
- c. Of the items that remain at issue, which would MCImetro characterize as contentious?

MCImetro Response: All of the issues are somewhat contentious, although compensation for unbundled network components, additional network unbundling beyond local loops, loop transport, and loop concentration, and ALEC access to BellSouth service ordering/provisioning and repair databases are most contentious.

2. If you were able to negotiate unbundled elements and rates for the elements, how soon would you be able to provide service to your target customers?

MCImetro Response: MCImetro would be able to offer commercial service to its customers approximately sixty days from initiation of testing the MCImetro switch with non-client traffic (alpha testing), barring any unforeseen technical and/or operational issues. Assuming the unbundling elements and rates for the elements and all other unbundling issues necessary to offer service have been settled prior to the completion of switch

testing, and further assuming that BellSouth provides the unbundled elements in a timely manner and meets established due dates, service could be offered immediately upon completion of testing. MCImetro will not be ready to begin such testing until mid-1996 in any Florida market.

3. Do you think BellSouth is being unreasonable in its negotiations? If so, why? Please be specific and identify any documentation supporting your claims.

MCImetro Response: Yes. BellSouth is taking policy positions in its negotiations with McImetro which are unreasonable. One example is its position on pricing for the unbundled components of its network. As noted in McImetro's response to Interrogatory No. 1, supra, pricing at TSLRIC is the only method that can prevent BellSouth from creating a price squeeze for competitors who rely upon some of its network components. Additionally, as explained in greater detail in response to question 11, pricing at TSLRIC can reduce BellSouth's incentives to engage in cross-subsidization of competitive components of its services with revenues from monopoly components purchased by competitors to form their bundled services, although it will not eliminate the necessity to continue enforcement of anti-trust laws.

4. Does MCImetro have any unbundling and/or resale arrangements with any local exchange companies in other jurisdictions?

MCImetro Response: No.

5. If Staff's Interrogatory No. 4 is answered in the affirmative, please identify any and all unbundling and/or resale arrangements reflected in tariffs filed with the appropriate public utility regulatory agency.

MCImetro Response: Not applicable.

6. If Staff's Interrogatory No. 4 is answered in the affirmative, please identify any and all unbundling and/or resale arrangements which are based on a written contractual agreement, other than those identified in McImetro's response to Staff's Interrogatory No. 5.

MCImetro Response: Not applicable.

7. What specific elements of BellSouth's network should be made available to MCImetro on an unbundled basis?

MCImetro Response: BellSouth should make unbundled local loops, loop transport, and loop concentration available to MCImetro. The unbundling of such elements is technically feasible. In addition, upon request, BellSouth should make available any other basic network function, or "BNF" of its network, that it is technically feasible to unbundle. This includes the list of elements requested by MFS.

A BNF, or "building block", is the most disaggregated function of the local exchange network that is capable of being unbundled and offered separately as a distinct service. Because the provision of local exchange service has not previously been open to competitive entry, it is not possible, a priori, to identify every BNF that can be efficiently provided by more than one firm and subject to competitive supply. Therefore, as they gain experience in the local exchange market and realize other components of BellSouth's network that they wish to utilize as part of their own bundled services, ALECs should be permitted to request additional unbundling from BellSouth. ALECs should not be required to purchase a bundled LEC service in order to obtain a single network component that may feasibly be unbundled from the tariffed service, because such a requirement would unnecessarily limit the efficiency gains that could be otherwise achieved if ALECs were allowed to provide all the elements of local exchange service they can efficiently provide while purchasing from BellSouth those elements that they cannot yet provide themselves.

8. Please provide diagrams illustrating the various unbundled network elements identified in response to Staff's Interrogatory No. 7.

<u>MCImetro Response</u>: Such diagrams are provided as Composite Attachment 1 to these Interrogatories.

9. What are the appropriate technical arrangements for the provision of each unbundled element identified in the response to Staff's Interrogatory No. 7?

MCImetro Response: MCImetro seeks the ability to either place loop concentration equipment in the BellSouth central office or have BellSouth place such equipment in its central office for use by MCImetro, and in either case connect the loop concentration equipment to loop transport to extend the loop to in MCImetro's switch for termination. As discussed in the direct testimony of Dr. Nina Cornell, the ability to concentrate unbundled loops in this manner is the most efficient way for MCImetro to provide services using unbundled loops.

In general, nearly every component of the incumbent LECs' networks is subject to industry technical standards. These standards represent a reasonable starting point for the incumbents' provision of unbundled network elements. The onset of a truly competitive telecommunications market constituting a "network of networks" may, however, require the creation of new interfaces for certain network elements. MCI's intent is not to bring such issues to the Commission unless and until it is unable to satisfactorily resolve such technical arrangements with BellSouth.

10. Please provide examples of how MCImetro intends to use each proposed unbundled network element identified in response to Staff's Interrogatory No. 7.

MCImetro Response: An unbundled loop involves those basic network elements that provide a connection between the end user's premises and the LEC's central office switch. An unbundled loop

would likely be used by MCImetro together with other related network elements, such as loop transport and loop concentration, for combination by MCImetro with its own switching and other functions to provide a retail local exchange service. described in more detail in the testimony of Dr. Nina Cornell. Unbundled loops, loop transport, and loop concentration will be used to provide service in areas in which MCImetro does not yet have such facilities, bringing the benefits of competition to greater numbers of consumers much more rapidly than could be accomplished if MCImetro were prevented from offering competitive services in those areas until its own loop facilities could be As noted in McImetro's Response to Staff's constructed. Interrogatory No. 1, because the local exchange market has not previously been open to competitive entry, it is not possible to anticipate every possible use of the unbundled basic network functions ("BNFs") of the local exchange network. For this reason, MCImetro believes that BellSouth should provide to MCImetro additional unbundled BNFs upon request. Indeed, the ability to purchase unbundled BNFs of the BellSouth's network is likely to lead ALECs to find new and innovative uses for components of the network. It is, therefore, not possible to identify the potential uses of each BNF that an ALEC might potentially request be provided on an unbundled basis by BellSouth.

11. What are the appropriate financial arrangements for each unbundled element identified in the response to Staff's Interrogatory No. 7?

MCImetro Response: Prices for unbundled loops, loop concentration, and loop transport (as well as for any other BNFs used as inputs by ALECs) should be set at direct economic cost: total service long run incremental cost ("TSLRIC"), as discussed in the testimony of Dr. Nina Cornell. TSLRIC is a form of forward-looking, incremental costing where the increment to be examined is the entire quantity of the service (or BNF) being offered rather than some small increment of demand for the service. Long run implies a period long enough so that all the firm's inputs in providing the service are variable, and no costs are considered "sunk."

Using a TSLRIC methodology for pricing those BNFs of BellSouth's network that are used by ALECs as inputs to their

service offerings will prevent BellSouth from engaging in several different forms of price discrimination. One such form of price discrimination is a price squeeze. A price squeeze would occur if a firm that supplies essential inputs to a competitor recovers less from its end users for those essential inputs than it charges the competitor. Given the flat rates charged for local exchange service in Florida, permitting BellSouth to price unbundled local loops in excess of economic costs (i.e., greater than TSLRIC) would create an opportunity for BellSouth to put ALECs in a price squeeze. Such a price squeeze would serve to keep out of the market competitive providers that could provide the other inputs of local exchange service as efficiently as BellSouth. Depending upon the size of the difference between the amount charged consumers for the essential inputs and the amount charged competitors, even ALECs that are more efficient than BellSouth would be kept out of the market by such a prize squeeze. Pricing at TSLRIC BellSouth's BNFs that are used as essential inputs by ALECs eliminates this artificial constraint on competition.

Another form of price discrimination that can be minimized by using TSLRIC pricing is cross-subsidization. As competition emerges in a piecemeal fashion in different markets, incumbent LECs have a significant incentive to cross-subsidize - charging more for services not yet subject to competition -- such as monopoly BNFs -- in order to lower to a level below cost the prices for services that begin to face competition. Pricing at TSLRIC reduces the incumbent's incentives to engage in such anticompetitive practices because where inputs are priced at TSLRIC, the incumbent would have to price its services below cost in order to cross-subsidize. This is why it will be necessary to continue to enforce the anti-trust prohibitions against predatory pricing even as telecommunications market become more competitive. Even where cross-subsidy is not involved and the anticompetitive pricing simply involves the incumbent LEC charging its competitors more for the use of a BNF than the LEC charges itself, consumers are deprived of the benefits of a vigorously competitive market. Those benefits include a more rapid pace of innovation in the development of new products and services, increased efficiency in the provision of telecommunications services, and lower prices.

The rationale underlying the argument that BNFs must be priced above their economic costs -- that the firm cannot price all its services at economic cost and remain a going concern -- is misguided. If it is true that the provision of

telecommunications services involves significant common costs (that is, costs that are not directly attributable to the provision of a specific service), then all service providers, including new entrants, must recover those common costs. The ALEC, however, will have no source other than its end users from which to recover its common costs. Therefore, to require ALECs to cover their own common costs as well as those of BellSouth (as would occur if prices for unbundled components were set above TSLRIC) would grant to BellSouth an artificial competitive advantage that would inhibit competition, contrary to the policy set forth by the legislature.

(For additional detail, see the prefiled testimony of Dr. Nina W. Cornell.)

12. For each requested unbundled network element, please provide detailed examples of the pricing methodology for these elements as discussed in Nina Cornell's direct testimony.

MCImetro Response: Based on the Benchmark Cost Model results recently furnished the FCC by the joint sponsors (MCI, USWest, Sprint, and NYNEX), TSLRIC costs for unbundled loops in Florida range from \$4.82 per month in the highest density areas to \$97.41 per month for the lowest density areas. The monthly loop cost results are as follows:

Households/Sq./Mi.	Monthly Loop Cost
<=5	\$97.41
5 to 200	\$20.78
200 to 650	\$ 9.00
650 to 850	\$ 6.81
850 to 2550	\$ 6.41
> 2550	\$ 4.82

A copy of the complete study from which this information was derived is provided as Attachment 2 to these Interrogatories.

(As indicated on page 1, the answer to this interrogatory was provided by Mr. Don Price. Although this answer deals in part with matters covered by Dr. Cornell's testimony, Dr. Cornell was not available to review this response prior to its due date.)

13. Please explain why current local exchange company tariffed services are not sufficient for providing your intended services, such as special access or private line loops.

MCImetro Response: Special access and private line services are intended as an end to end service, not unbundled functions. For example, BellSouth performs all of the testing and engineering for private lines, aspects of service that ALECs would perform themselves for unbundled local loops. In this example, a new entrant would have to pay BellSouth for testing and engineering the private line (as part of the "private line" package), even if it could perform the function more efficiently itself. Any increased efficiency that the new entrant could realize by providing its own testing and engineering would be lost by having to pay BellSouth for this function, whether it is used or not.

The ability to purchase only those BNFs that an ALEC needs will accomplish the following important objectives:

- As described in the example above, unbundling permits ALECs to purchase only those BNFs that they need from the incumbent LEC. This permits those BNFs that can be provided on a competitive basis to be provided competitively, while limiting the extent of costly and unnecessary duplication of BNFs for which competition is not yet viable.
- Unbundling provides a basis for estimating the cost of the use of BNFs on a consistent basis, and for ensuring that anticompetitive price discrimination (such as a price squeeze) is not allowed to take place.

Competitive providers will not have alternative sources of supply for basic network functions and should not be disadvantaged by having to pay more for a particular BNF than the incumbent LEC pays for that BNF as an input into its own retail services. Requiring new entrants to pay retail prices for wholesale inputs to their own services forecloses the possibility that competition can develop in areas in which competitive providers do not have their own loop facilities.

* * * * *

RESPECTFULLY SUBMITTED this 2nd day of January, 1996.

HOPPING GREEN SAMS & SMITH, P.A.

By: Pie D. Me

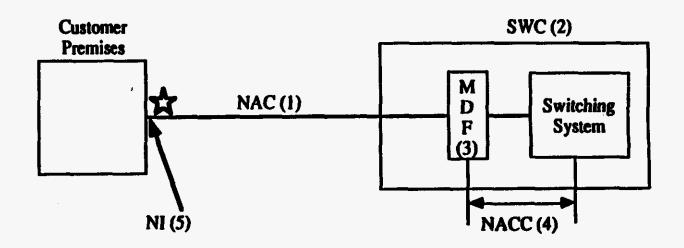
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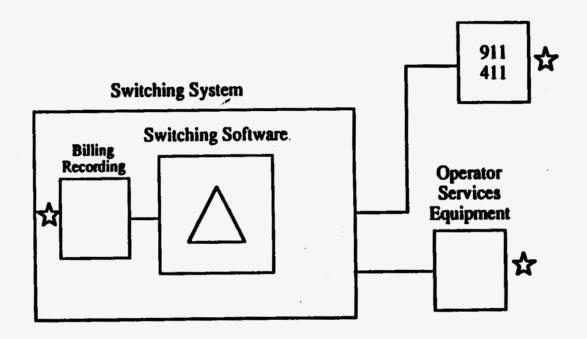
Existing Network Access Arrangement



- (1) Network Access Channel
- (2) Serving Wire Center
- (3) Main Distribution Frame or DSX
- (4) Network Access Channel Connection
- (5) Network Interface



10



Billing Recording

- Call detail recording
- Call detail transmission

Operator Services

Access via third-party switch to operator services

911/411

- Access via third-party switch to 911 service
- Access via third-party switch to 411 service

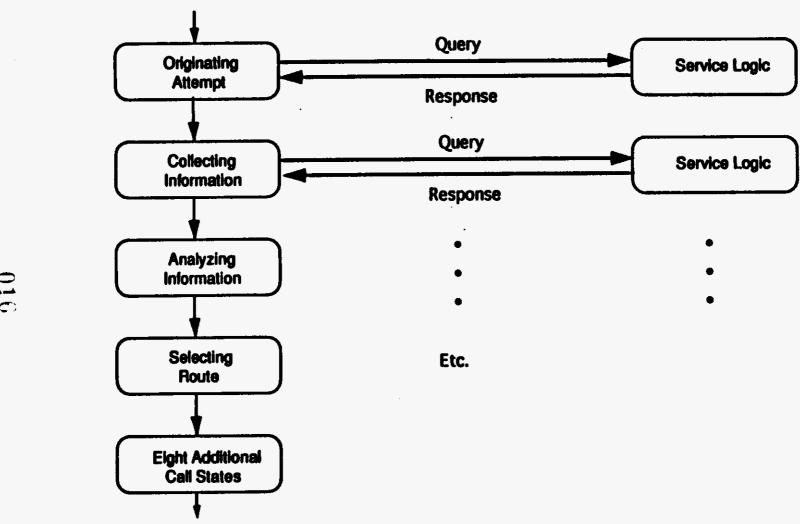
△ Switching Software Unbundling

- Route Selection
- TCAP Message Generation
- ISUP Message Generation
- AIN-related functions (FL)

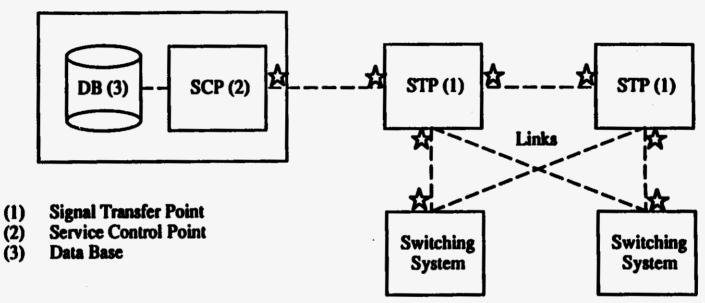
= Interface

015

Unbundling of Switching (AIN elements)



Adapted from Bellcore SR-NPL-001509 This is not a comprehensive portrayal of all AIN switch trigger points or potential interfaces.



Additional Unbundled Elements Include:

- Signaling Link
- Switching System (Ports Tandem and Class 5 switch)
- STP (Ports)
- SCP/Database (Ports)
- ISUP/TCAP Message Generation (included in switching, see p. 9)

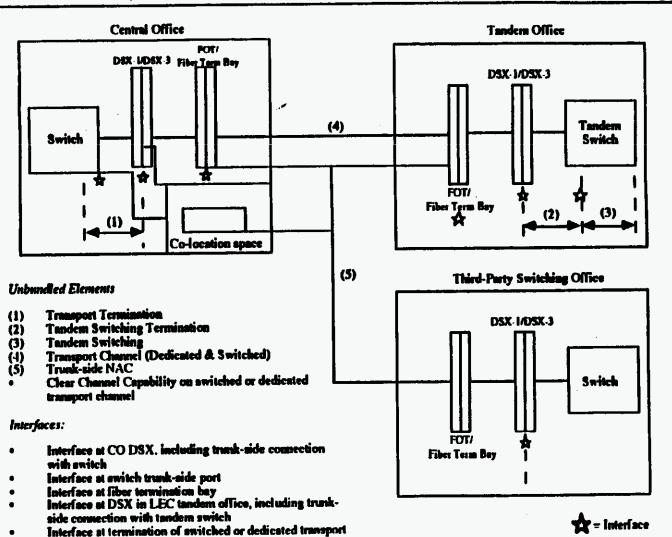
Interfaces are at:

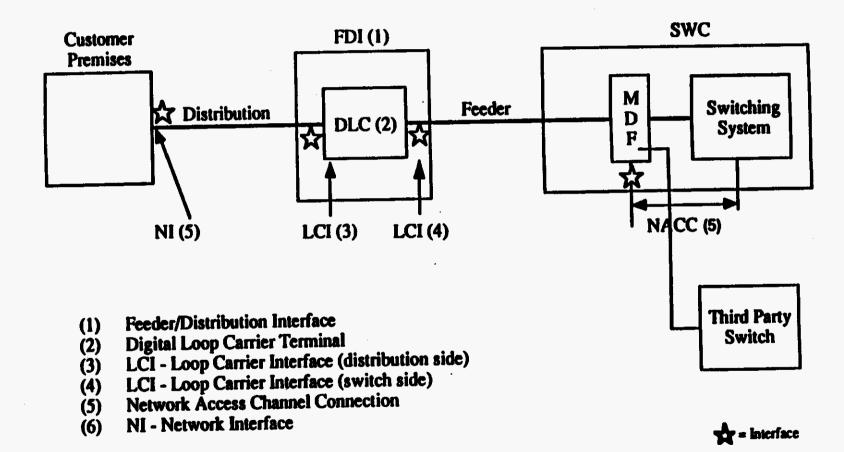
- Switching System
- STP
- SCP

= Interface

10

channel in third party central office





Benchmark Cost Model:

A Joint Submission by

MCI Communications Inc.
NYNEX Corporation
Sprint Corporation
U S WEST, Inc.

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CC Docket No. 80-286 December 1, 1995

> Attachment 2 MCInetro Response to Staffé 1st Interrogntories Docket No. 950984-TP

Benchmark Cost Model:

A Joint Submission by MCI Communications Inc., NYNEX Corporation, Sprint Corporation, and U S WEST, Inc.

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I. Executive Summary

On July 13, 1995, the Federal Communications Commission (FCC) issued a Notice of Proposed Rulemaking (NPRM) "...seeking comments on proposals and policy changes to improve...assistance mechanisms intended to provide funds necessary to promote universally available service at reasonable rates." The FCC identified four "primary principles" which should be considered in evaluating any proposals for addressing universal service. These principles provide that a plan should:

- 1. Be properly targeted so that support is given only to those service providers or users who need assistance to maintain local service.
- 2. Promote efficient investment and operation.
- 3. Not impose excessive subsidy costs upon interstate carriers and ratepayers.
- 4. Not impose barriers to competitive entry into local telecommunications.

Elsewhere in the NPRM, the FCC states:

- o "We tentatively conclude that Census Block Group is an appropriately-sized geographic area for disaggregating the costs of providing local service..."
- o "...we believe a proposal to use proxy factors to determine distribution of the Fund should receive serious consideration..."

In order that parties commenting in this proceeding may have a common source of data which utilizes both the concept of the Census Block Groups (CBGs)¹ and proxy costing, MCI, NYNEX, Sprint, and US West (Joint Sponsors) have worked together to develop a Benchmark Costing Model (BCM). This model will produce "benchmark" costs for the provision of basic telephone service² in each CBG within a state. The purpose of this study is to identify those CBGs in which the cost of providing basic telephone service is so high that some form of explicit high-cost support may be necessary as part of a universal service solution. The BCM is intended to provide the Commission, Joint Board, and other interested parties with information that can be used to evaluate the multiple proposals for the use of proxy methods set forth in the NPRM, including assessing the application of the proxy methodology to large companies only.

¹ A CBG is a geographic unit defined by the Bureau of the Census which contains approximately 400 households.

² Basic telephone service is defined as voice grade access to the public switched network with the ability to place and receive calls, residential one party service, touch tone, a white page directory listing (costs not included), and access to directory assistance, operator service, and emergency services, e.g., 911/E911.

In developing the BCM, the Joint Sponsors have further developed the previously-submitted proxy models which accounted for density and distance from the nearest central office as factors affecting the cost of service. The Joint Sponsors have also attempted to respond to the FCC's desire to see additional variables which could affect the cost of providing service, such as terrain, slope, surface characteristics, and climate included in the analysis.

The BCM presents monthly cost results using two alternative factors for determining expenses and overhead loadings associated with basic local service. One set of factors is based on historical accounting data, while the second is based on an estimate of costs and overheads using the methodology contained in the MCI/Hatfield study.

On September 12, 1995, the Joint Sponsors submitted a detailed description of the BCM Model and the results of the model for six states. On November 1, 1995, the Joint Sponsors made a second filing which provided model results for 17 additional states. In this filing the Joint Sponsors are presenting the results of this model for the remaining 26 states and the District of Columbia. (Model results are not beings presented for Alaska due to data limitations). In order that this document may serve as complete summary of the BCM study, we are also including the 23 states' results and model documentation which have been submitted previously.

It is important to understand what the BCM is, and what it is not:

- 1. The purpose of the BCM is to identify areas where cost of service can reasonably be expected to be so high as to require explicit high cost support for the preservation of universal service.
- 2. The BCM produces a benchmark cost range for a defined set of basic residential telephone services assuming efficient engineering and design criteria and deployment of current state-of-the-art loop and switching technology, using the current national local exchange network topology.
- 3. The BCM does not define the actual cost of any telephone company, nor the embedded cost that a company might experience in providing telephone service today. Rather, the BCM provides a benchmark measurement of the relative costs of serving customers residing in given areas, i.e., the CBGs.
- 4. The BCM included only residential lines in the analysis, because business line source data was not readily available. However, because the primary purpose of the study is to identify high cost CBGs, the impact of excluding business lines from the calculation of the benchmark cost in those CBGs is de minimus.

The Joint Sponsors have held four workshops to describe the workings of the BCM, and to provide copies of the coprighted model for use by interested parties.³. These workshops were held at the following locations:

September 20, 1995	Washington, DC
September 22, 1995	Denver, CO
October 12, 1995	Portsmouth NH
November 12, 1995	New Orleans, LA

By making the model publicly available, the Joint Sponsors hope that the Commission, Joint Board and other interested parties will be able to obtain facts, data, and policy recommendations which will assist in the timely resolution of the important issues relating to universal service.

³ The Joint Sponsors grant to all parties the right to use the BCM and its results. No right is granted to license or sell the BCM, or any portion thereof, or to reverse engineer or decompile the BCM, or any portion thereof. In addition, except for inputs intended to be modified by the user, no right is granted to modify the BCM, or any portion thereof.

II. Summary Model Results

Narrative

The model results summarized below show the annual benchmark cost and the aggregate support at various illustrative price points, and assuming two different annual cost factor assumptions.

Annual benchmark cost: The actual benchmark cost for each CBG in a particular state is multiplied by the number of households in each CBG. This monthly total benchmark cost for each CBG is multiplied by 12 to yield the annual benchmark cost for each CBG; all CBG benchmark costs in a state are summed to derive the statewide annual benchmark cost.

Aggregate support: The actual benchmark cost for each CBG is compared to illustrative price points of \$20, \$30, and \$40. The difference between the benchmark costs for each CBG that exceeds the illustrative price points and the illustrative price points themselves is multiplied by the number of households in that CBG, and annualized. The result is the aggregate support in excess of the price point(s).

Annual Cost Factors: Annual Cost Factor # 1 (31.6765%) is based on historical accounting data and total expense levels of the Tier 1 LECs utilizing 1994 ARMIS Form 43-01. Annual Cost Factor # 2 (22.97%) is based on the Hatfield/MCI study approach and reflects limited expense categories and amounts.

Summary Model Results

National Total (excluding Alaska)

	Annual Cost Factor #1	Annual Cost Factor #2
Annual Benchmark Cost	25,377,893,663	18,402,608,162
Aggregate Support		
at \$20	8,882,313,345	3,977,572, 193
at \$30	4,916,517,444	2,203,441,910
at \$40	3,208,565,853	1,372,205,121
Average Monthly Cost	23.04	16.71
	Alabama	
	Annual Cost	Annual Cost
	Factor #1	Factor #2
Annual Benchmark Cost	478,219,936	346,777,956
at \$20	188,638,903	93,725,107
at \$30	112,776,003	38,823,453
at \$40	58,728,461	16,627,173
verage Monthly Cost	26.46	19.19
<u>_</u>	Arkansas	
	Annual Cost	Annual Cost
	Factor #1	Factor #2
Annual Benchmark Cost Aggregate Support	359,110,029	260,406,212
at \$20	182,192,180	102,449,522
at \$30	129,645,111	61,443,344
at \$40	89,397,329	35,000,011
		24.34

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Benchmark Cost Model

Arizona

	Annual Cost Factor #1	Annual Cost Factor #2
Annual Benchmark Cost	349,926,976	253,747,183
Aggregate Support		
at \$20	143, 68 0,081	88, 571,155
at \$30	11 6,567,996	69,202,934
at \$40	97,611,692	56,135,289
Average Monthly Cost	21.26	15.41
	California	
	Annuai Cost	Annual Cost
	Factor #1	Factor #2
Annual Benchmark Cost Aggregate Support	2,252,171,780	1,633,147,153
at \$20	399,861,956	175,906,571
at \$30	219,697,750	110,424,413
at \$40	158,057,533	79,592,793
Average Monthly Cost	18.05	13.09
-	Colorado	
	Annual Cost	Annual Cost
	Factor #1	Factor #2
Annual Benchmark Cost Aggregate Support	397,796,384	288,459,360
at \$20	145,584,796	82,500,786
at \$30	107,384,348	61,352,402
at \$40	86,837,762	48,949,217

Connecticut

	Annual Cost Factor #1	Annual Cost Factor #2
Annual Benchmark Cost	277,481,627	201,213,927
Aggregate Support	•	
at \$20	45,297,251	9,88 5,361
at \$30	9,092,329	911,7 11
at \$40	1,560,221	130,686
Average Monthly Cost	18.90	13.63
Wa	ashington D.C.	
	Annual Cost	Annual Cost
	Factor #1	Factor #2
Annual Benchmark Cost	33,429,915	24,241,477
Aggregate Support		
at \$20	386,284	11,299
at \$30	8,112	2,415
at \$40	3,495	1,350
Average Monthly Cost	11.19	8.11
	Delaware	-
	Annual Cost	Annual Cost
	Factor #1	Factor #2
Annual Benchmark Cost Aggregate Support	65,048,648	47,163,786
at \$20	14,434,908	4,238,120
at \$30	4,293,345	478,815
at \$40	\$35,378	41,326
Average Monthly Cost	21.93	15.90
Benchmark Cost Model	II-4 030 Dece	mber 1, 1995

Florida

	Annual Cost Factor #1	Annual Cost Factor #2
Annual Benchmark Cost	1 987 (40 990	011.007.115
	1,257,649,880	911,976,315
Aggregate Support	400 400 400	
at \$20	229,450,680	82,382,867
at \$30	97,122,412	37,334,524
at \$40	55,246,242	19,978,268
Average Monthly Cost	20.40	14.79
	Georgia	
	Annual Cost	Annual Cost
	Factor #1	Factor #2
Annual Benchmark Cost	780,627,398	566,066,685
Aggregate Support	•	,
at \$20	267,771,343	119,069,714
at \$30	141,619,901	50,891,484
at \$40	76,553,683	21,630,212
Average Monthly Cost	27.49	19.93
	Hawaii	
	Annual Cost	Annual Cost
•	Factor #1	Factor #2
Anuual Benchmark Cost Aggregate Support	81,958,248	59,431,470
at \$20	22,284,469	11,262,366
at \$30	14,241,027	7,100,703
at \$40	10,163,664	4,577,087
Average Monthly Cost	19.14	13.88

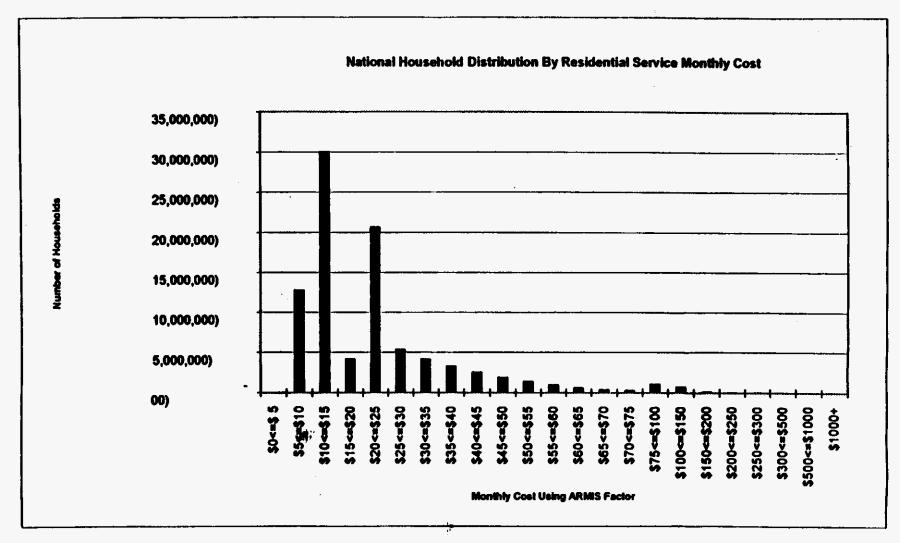
Iowa

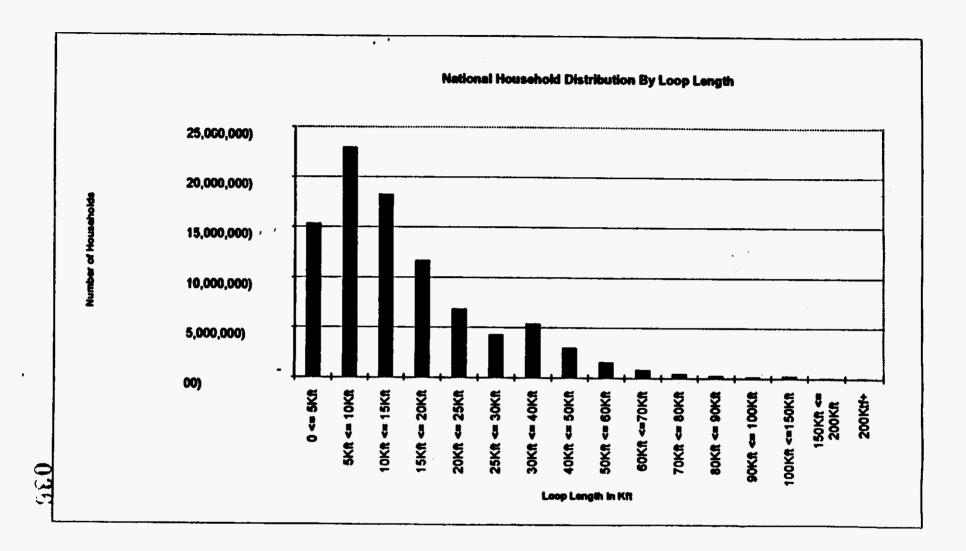
	Annual Cost Factor #1	Annual Cost Factor #2
Annual Benchmark Cost	403,637,170	292,694,76
Aggregate Support		
at \$20	199,546,468	116,562,460
at \$30	150,158,735	77,297 ,749
at \$40	111,343,467	47,148,060
Average Monthly Cost	31.58	22.90
	Idaho	
	Annual Cost	Annual Cost
	Factor #1	Factor #2
Annual Benchmark Cost	177,553,490	128,751,71
Aggregate Support		
at \$20	103,131,867	63,763,20
at \$30	83,829,221	49,526,40
at \$40	69,852,699	40,482,74
Average Monthly Cost	40.94	29.6
<u> </u>	Illinois	
	Annual Cost	Annual Cost
	Factor #1	Factor #2
Annual Benchmark Cost	1,044,152,034	757,159,79
Aggregate Support		
at \$20	268,441,873	126,016,37
at \$30	156,359,606	68,2 11,63
at \$40	100,477,083	32,918,17
Average Monthly Cost	20.73	15.0

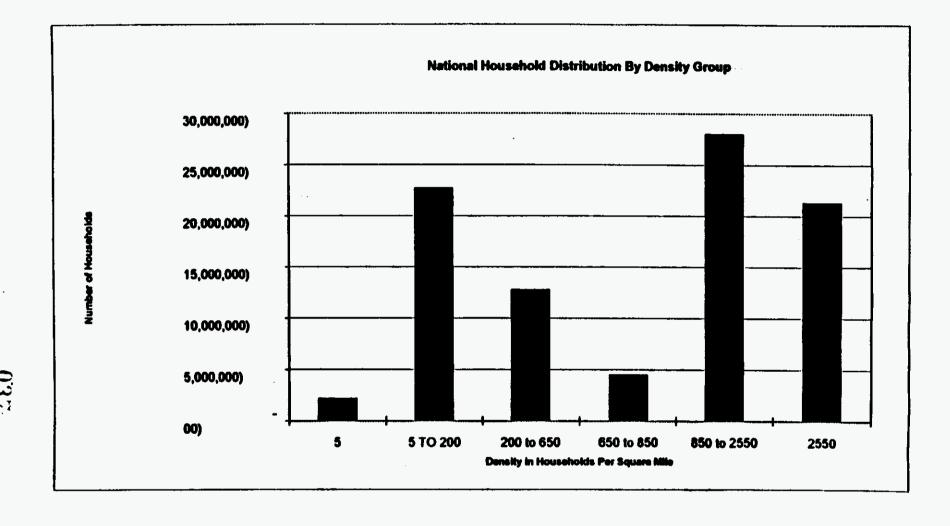
III. Model Results

FOLLOWING ARE NATIONAL SUMMARY DATA AND MODEL RESULTS FOR EACH STATE.

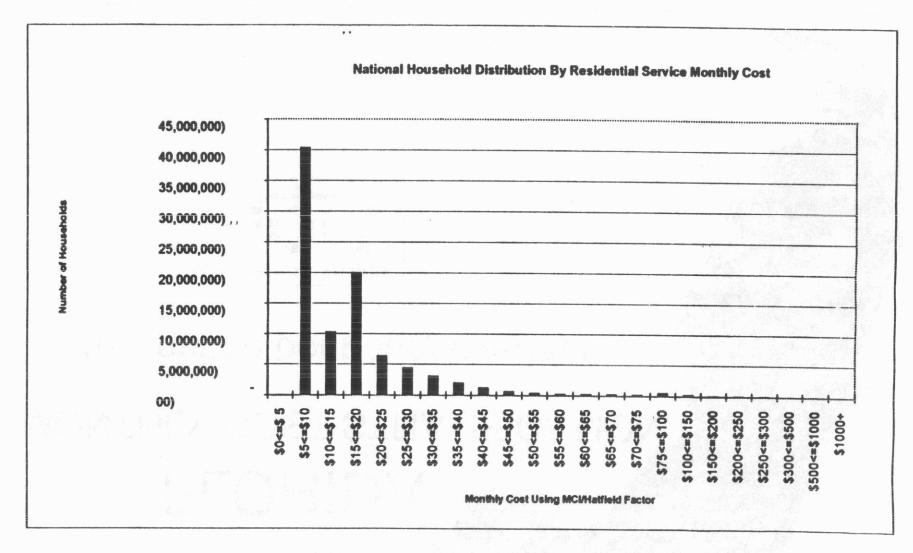


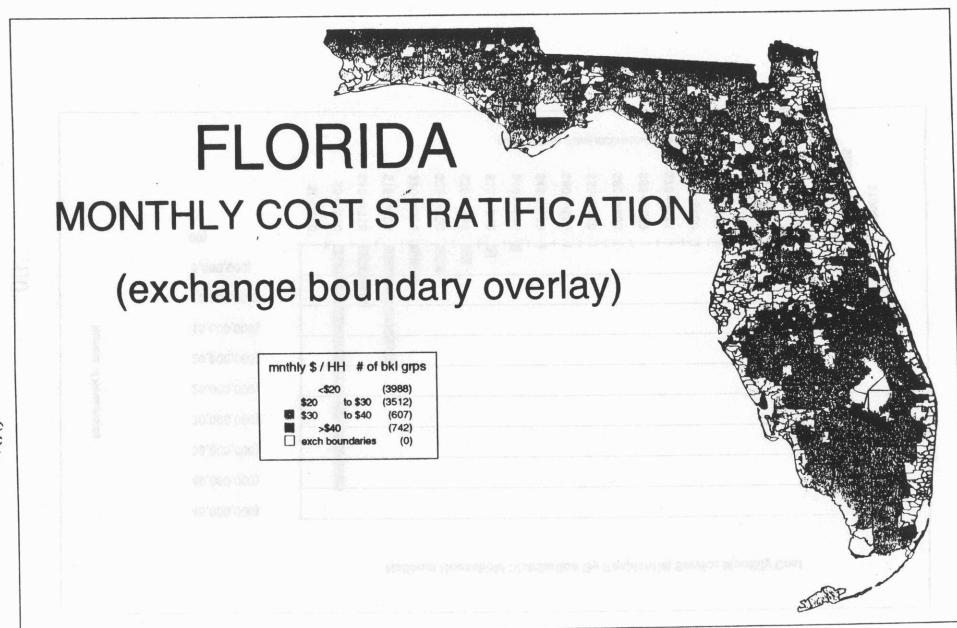










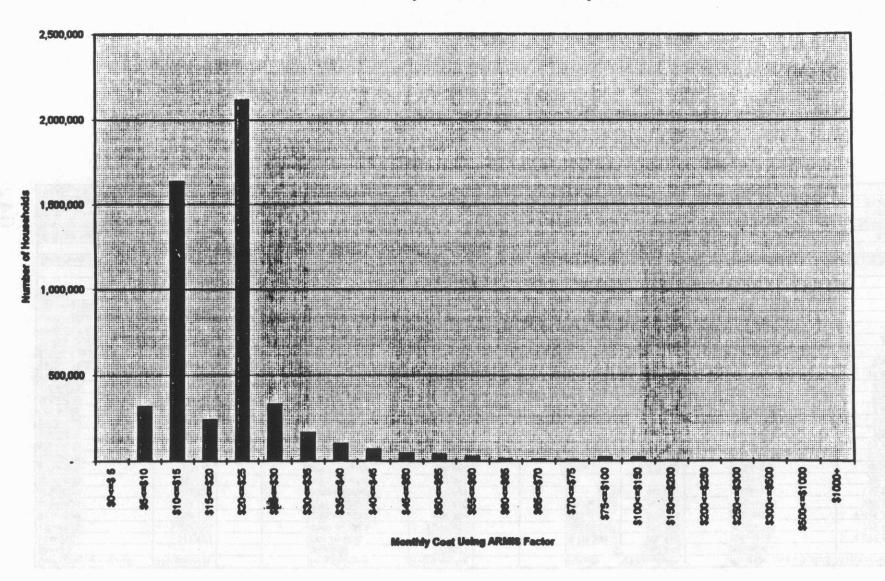


Density	Data	Total			and a large and a large
<=5	Sum of # Households	42,548			
	Average of Loop Length	75,547.62			
	Average of Loop \$ per HH	5,088.72		ARMIS	DIRECT
	Average of Total Invstmnt/Ln	5,477.65	Aggregate Support at \$20=	\$ 229,450,680	\$ 82,382,867
5 TO 200	Sum of # Households	769,152			
	Average of Loop Length	32,922.70	Aggregate Support at \$30=	\$ 97,122,412	\$ 37,334,524
	Average of Loop \$ per HH	1,085.54			
	Average of Total Invstmnt/Ln	1,394.25	Aggregate Support at \$40=	\$ 55,246,242	\$ 19,978,268
200 to 650	Sum of # Households	831,286			
	Average of Loop Length	17,529.44	Annual Benchmark Cost =	\$1,257,649,880	\$911,976,315
	Average of Loop \$ per HH	470.24			
	Average of Total Invstmnt/Ln	744.45	State Average Monthly Cost=	\$ 20.40	\$ 14.79
650 to 850	Sum of # Households	353,174			
	Average of Loop Length	14,564.99			
	Average of Loop \$ per HH	355.81	26 2		
	Average of Total Invstmnt/Ln	625.66			
850 to 2550	Sum of # Households	2,199,649			
	Average of Loop Length	11,625.11			
	Average of Loop \$ per HH	334.77			
	Average of Total Invstmnt/Ln	598.81			
>2550	Sum of # Households	942,551			
	Average of Loop Length	9,185.26			
	Average of Loop \$ per HH	251.89			
	Average of Total Invstmnt/Ln	513.61			
		Total			
Density	Data - 111	144.59			
<=5	Average of Monthly Cost1				
	Average of Monthly Cost2	104.85 36.80			
5 TO 200	Average of Monthly Cost1				
	Average of Monthly Cost2	26.69			
200 to 650	Average of Monthly Cost1	19.65			
	Average of Monthly Cost2	14.25			
650 to 850	Average of Monthly Cost1	16.52			
	Average of Monthly Cost2	11.98			
850 to 2550		15.81			
	Average of Monthly Cost2	11.46			
>2550	Average of Monthly Cost1	13.56			
	Average of Monthly Cost2	9.83			

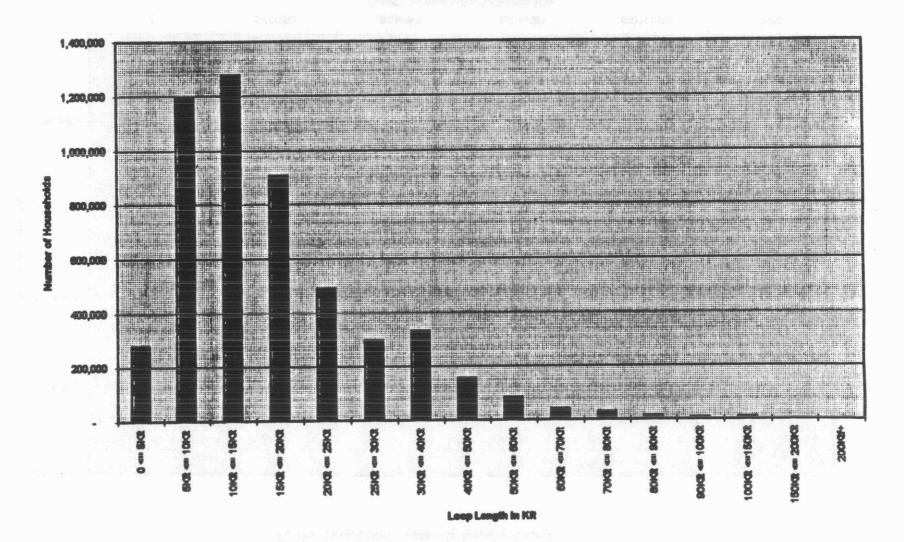
Coat Category - ARMB	# Households	Loop Category	# Households	Deneity	# Households	Cost Category - Hatfield	8 Households
\$0<=\$ 5		0 <= 5KR	279,521	5	42,548	\$0<=\$ 5	
\$5<=\$10	317,128	5KR <= 10KR	1,197,466	5 TO 200	769,152	\$5<=\$10	1,877,445
\$10<=\$15	1,834,850	10KR <= 15KR	1,278,421	200 to 650	831,288	\$10<=\$15	772,141
\$15<=\$20	239,178	15KR <= 20KR	909,734	650 to 850	353,174	\$15<=\$20	1,845,455
\$20<=\$25	2,114,747	20KR <= 25KR	489,440	850 to 2550	2,199,649	\$20<=\$25	292,365
\$25<=\$30	330,867	25KR <= 30KR	298,642	2550	942,551	\$25<=\$30	132,998
\$30<=\$35	163,954	30KR <= 40KR	331,387			\$30<=\$35	79,234
\$35<=\$40	98,575	40KR <= 50KR	156,382	Total	5,136,360	\$35<=\$40	49,345
\$40<=\$45	67,501	50KR <= BOKR	85,852			\$40<=\$45	30,621
\$45<=\$50	44,321	BOKR <=70KR	41,099			\$45<=\$50	12,280
\$50<=\$55	38,495	70KR <= 80KR	32,355			\$50<=\$55	7,014
\$55<=\$80	25,721	BOKR <= BOKR	16,152		514/2001/05/45 di 1/1/46	\$55<=\$60	5,542
\$80<=\$85	13,071	90KR <= 100KR	8,184			\$60<=\$65	7,890
\$65<=\$70	7,170	100KR ←150KR	11,213			\$65<=\$70	6,996
\$70c=\$78	4,308	150KR <= 200KR	1,374			\$70<=\$75	4,176
\$75<=\$100	22,480	200Kg/+	539			\$75<=\$100	11,817
\$100<=\$150	16,302					\$100<=\$150	2,657
\$150<=\$200	1,300	CHARLES CATALOGICAL CONTRACTOR	西国际的联系			\$150<=\$200	85
\$200<=\$250	67	Total Households	5,136,360			\$200<=\$250	209
\$250<=\$300	2					\$250<=\$300	83
\$300<=\$500	291	Minimum Loop Longth	525			\$300<=\$500	83
\$500<=\$1000	24	Madmum Loop Longth	224,731			\$500<=\$1000	17
\$1000+		Median Loop Length	13,367			\$1000+	1
Total Households	5,130,580					Total Haussholds	£ 430 300
The state of the s				Maria de la companya della companya			5,138,360
Minimum Monthly Cost	\$7.01					Minimum Monthly Cost	\$ 5.52
Mesimum Monthly Cost	\$1,401.20					Maximum Monthly Cost	\$ 1,016.14
Median Monthly Cost	\$20.00			C.N. 199 St. 1		Median Monthly Cost	\$ 14.96
Average Monthly Cest	\$20.40			1 20042		Average Monthly Cost	\$14.79
HH Above \$20K Leap Invi	et 25						

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FL Household Distribution By Residential Service Monthly Cost

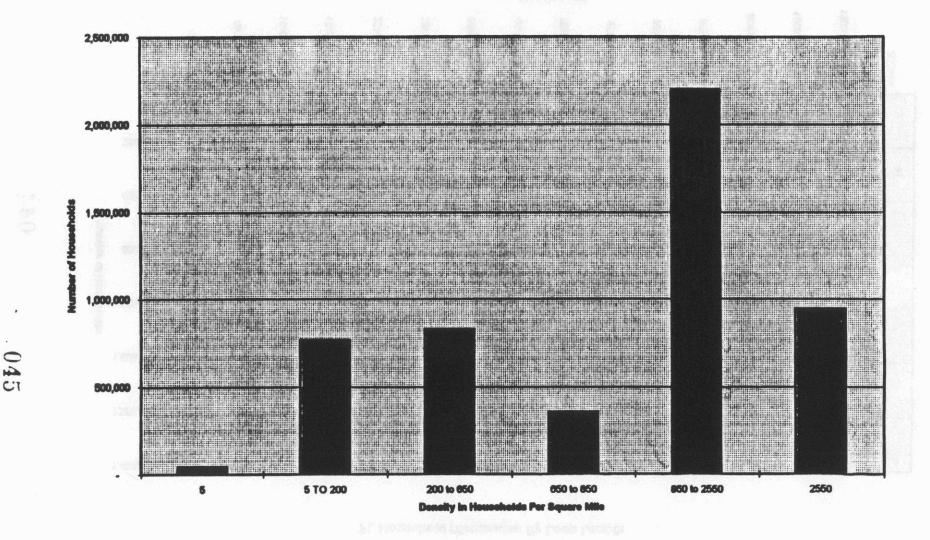


FL Household Distribution By Loop Length

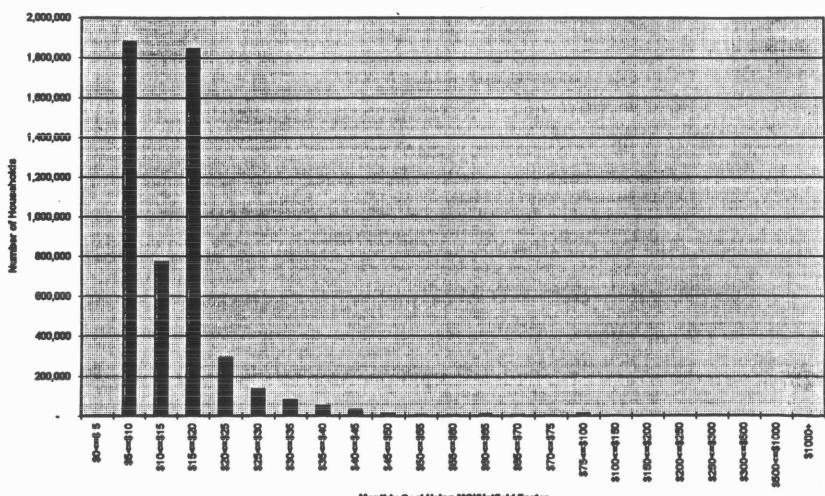


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FL Household Distribution By Density Group



FL Household Distribution By Residential Service Monthly Cost



Monthly Cost Using MCVHatfield Factor

(continuation 8)

IV. Model Description and Documentation

A. General

The cost estimates generated by the model for each CBG represent the cost of placing new loop plant from currently existing COs using today's technology. Every U.S. household reflected in the 1990 Census is connected to the network in the same time frame and in a uniform manner. Switching costs are calculated using currently available digital technology based upon estimated switching demands of the associated CBGs. Thus, model costs reflect the costs a telephone engineer would face in installing new service to an area. In this case, the entire U.S. is treated as a new service area.

The cost differentials between CBGs reflect differences in the distance from the CO, the density of households, and the impact of terrain upon the cost of placing telephone plant. Terrain factors added to the model include: depth of bedrock, depth of the water table, hardness of bedrock, and surface soil texture. Because of the consistency of factors considered and their uniform application, costs from CBG to CBG are directly comparable.

B. Model Methods

1. Assumptions

Architecture

- Feeder cable (cable placed so that it can be supplemented at a later date) begins at the central office and ends at the edge of the CBG.
- Four main feeder routes leave each central office (north, south, east, west), with feeder route boundaries at 45 degree angles from the main feeder routes. (See page 19 Figure 1)
- Cable and fiber feeder systems share structure (conduit systems, poles, placement costs) along main feeder routes.
- Feeder routes are segmented at taper points where the cable capacity decreases as cable capacity is provided to individual CBG distribution systems.
- Each feeder segment's cable size (both fiber and copper) is determined based upon the number of households in the CBGs served by that feeder segment as well as the fill factor applicable to that CBG.
- Feeder cable sizes range from 100 pair cable to 4200 pair cable for copper and from 12 strands to 144 strands for fiber.
- Households are evenly distributed in the CBG.
- Distribution cable begins at the edge of the CBG and ends at the customer premise.
- Four equal distribution legs used to serve CBG.
- Distribution cable sizes range from 50 pair cable to 3600 pair cable for copper.

Loop Technology

- Analog copper technology for all distribution plant.
- Analog copper technology for feeder plant, where the total loop length is less than 12.000 feet.
- Digital Subscriber Line Carrier (SLC Series 2000) with fiber feeder, where the total loop length exceeds 12,000 feet and household density in the CBG is greater than 5 households per square mile, consistent with Bellcore Carrier Serving Areas.
- Remote Terminal located at CBG edge, where feeder plant ends.
- Each CBG utilizes a minimum of 4 dedicated fibers, to provide up to 672 voice grade paths.
- Digital Fiber Loop Carrier Bus Technology (American Fiber Communications Next Generation Digital Loop Carrier System) with fiber feeder, where the total loop length exceeds 12,000 feet and household density in the CBG is less than 5 households per square mile, consistent with Bellcore Carrier Serving Areas.
- Remote Terminal located at CBG edge, where feeder plant ends.
- Each CBG utilizes a minimum of 4 fibers, to provide up to 672 voice grade paths.
- Same 4 fibers may continue to more outlying CBGs, within capacity constraints.

Switch Technology

- Source for Switching Costs is <u>Telecommunications Policy for the 1990s and beyond</u> by Walter G. Bolter, James W. McConnaughey, and Fred J. Kelsey (M.E. Sharpe, Inc. Armonk, New York, 1990.)
- Northern Telecom DMS 100 costs split between common costs (and per line costs through regression analysis (see Attachment 1).
- Common cost per switch is \$647,526 and the per line cost is \$238.87.
- Common costs represent central processor frames, frames and equipment dedicated to billing and data recording, miscellaneous power equipment and emergency backup power systems, main distributing frame plus miscellaneous frames required for overall system testing, and various software expenses to allow the switch general operating capabilities.

Density

- Households per square mile (density) of CBG determines the fill factor used for plant serving that CBG and the mixture of underground, buried, and aerial plant. (See Attachment 2)
- Six density groupings (in Households per Square Mile):

 CBGs with densities greater than 850 households per square mile are considered urban, while CBGs with densities less than or equal to 850 are considered rural.
 Urban CBGs have higher placement costs than rural CBGs, if other terrain indicators are equal.

Terrain and Placement

- Placement depths for copper and fiber facilities are set at 24 inches and 36 inches respectively. These depths can be easily changed to account for other factors, such as differing engineering practices or regulatory mandates.
- Terrain indicators include:
 - Depth to Water Table
 - Depth to Bedrock
 - Hardness of Bedrock
 - Surface soil texture
- If the water table or bedrock are within the placement depth, then the structure/installation costs are increased to reflect the additional construction costs.
- If the water table or bedrock are below the placement depth, then the surface soil texture is examined to determine if soil can be plowed, or if more expensive placement techniques must be used.

Cable/Fiber/Equipment Costs

All copper cable is 24 gauge. Aerial cable is non-armored with both aluminum and plastic jacketing. Buried cable is armored single jacket filled cable. Fiber cables have the same armoring and jacketing as their respective copper counterparts.

- Prices for cable, fiber, and other equipment are list prices, for non-volume discount buyers.
- Separate discounts may be set by cable, fiber, or equipment type to reflect volume discounts.

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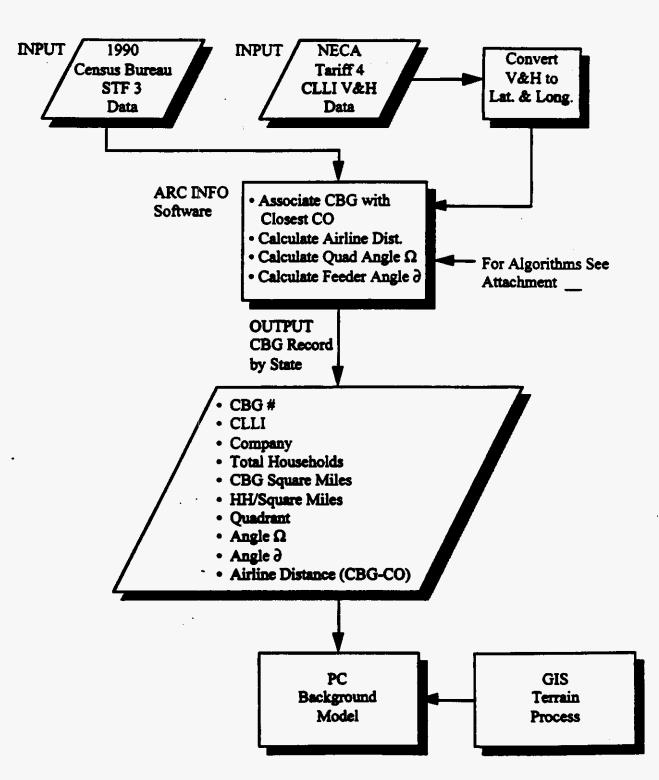
Structure Costs

- Definition of structure costs: costs of conduit systems, interduct, poles, etc. and the capitalized costs of placing cables.
- Structure costs are calculated as a percent of cable costs, based on ratios of a cost per foot to place the plant versus the cost per foot of the plant itself.
- This factor is adjusted by terrain and urban/rural variables and multiplied by cable costs to determine structure costs.

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2. Process Flowcharts

GIS Process for Assigning CBGs to Closest Central Office



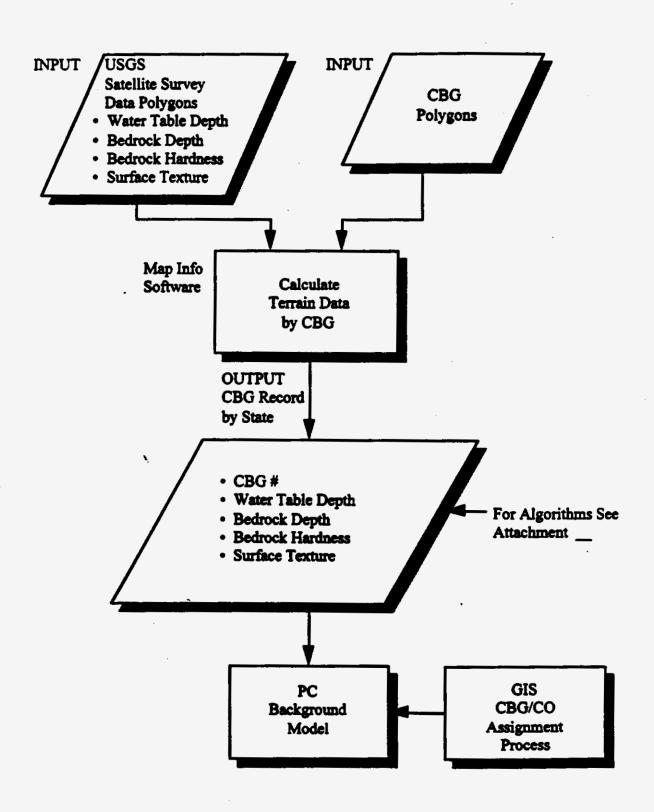
Benchmark Cost Model

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GIS Process for Assigning Terrain Indicators to CBG



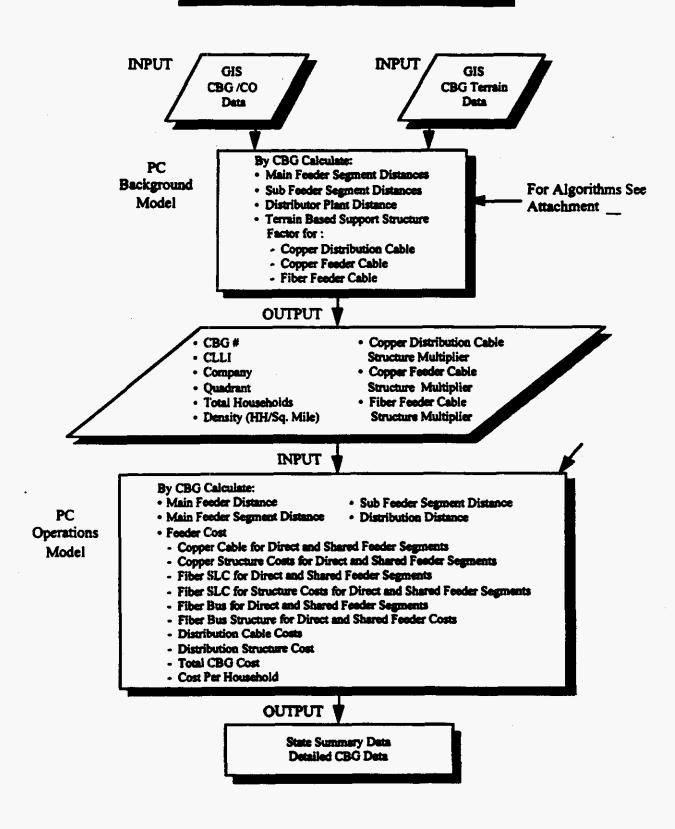
Benchmark Cost Model

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PC Models for Determining CBG Cost



Benchmark Cost Model

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3. Detailed Model Algorithms

Feeder Plant Distance Algorithms

To estimate feeder plant costs for a given census block group, the length of the feeder cable from the closest central office to the census block group is approximated. This distance is calculated using the longitude and latitude of the closest central office and the longitude and latitude of the census block group.

Typically, as shown below in Figure 1, each LEC central office is divided into four routes, with each route radiating out from the central office in four directions (e.g. north, south, east, west). Branching off from the main feeders are sub-feeders, typically at right angles to the main feeder, giving rise to the familiar tree topology of feeder routes. Subscribers or homes are somewhat randomly spread within the route serving areas. They become less densely populated as the distance from the central office increases, but the densities can be expected to be about the same on any route, at any given distance from the central office.

Feeder Plant Assumptions

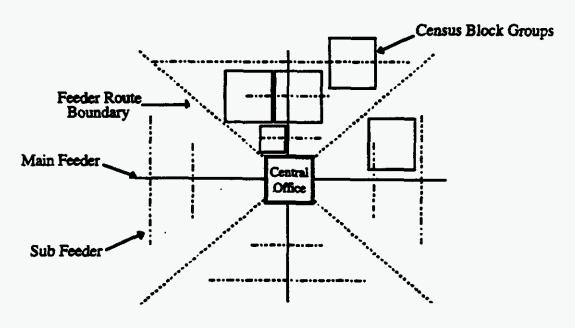


Figure 1

The geographic centers (centroids) of the CBGs may fall in any of the four feeder route serving areas. In order to determine on which of the four main feeder routes (or quadrants) a CBG is served, an angle W is calculated. The angle W represents the counter-clockwise rotational angle between a line connecting the CBG with the closest central office and a line headed directly east from the central office. This is displayed in Figure 2 below.

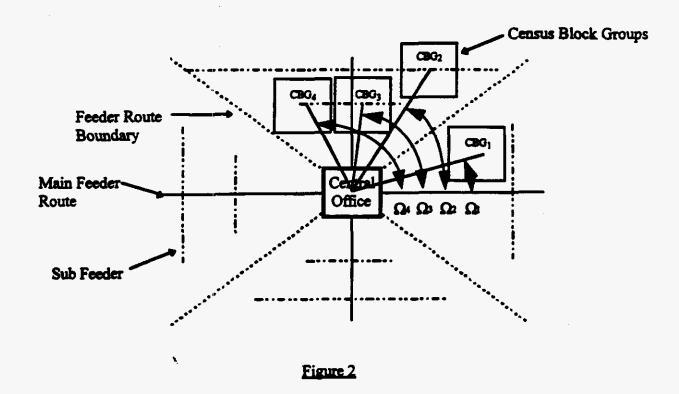
Benchmark Cost Model

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The relation between the angle W and the feeder route is found in the Table below:

East Feeder Route (Quadrant 1):	315° < W <= 45°
North Feeder Route (Quadrant 2):	45° < W <= 135°
West Feeder Route (Quadrant 3):	135° < W <= 225°
South Feeder Route (Quadrant 4):	225° < W <= 315°



Calculating Feeder Distances for CBGs 1 through n.

For purposes of simplification, it is assumed that each census block group is square in shape, with the households within the census block group distributed uniformly. Additionally, it is assumed that sub-feeder cable ends at the edge of the census block group, unless the CBG boundary overlaps the main feeder route, in which case no sub-feeder plant is used. Thus, it is necessary to convert the airline distance from the central office to the census block group to an equivalent feeder plant route length. This conversion becomes a simple mathematical model.

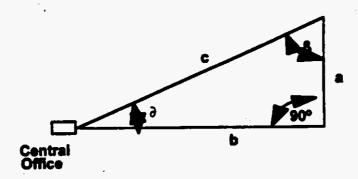


Figure 3

Using Figure 3:

Airline Distance between Central Office and Centroid of CBG = c

Angle between Main Feeder Route and Line Connecting CO Location and CBG Centroid =

Main Feeder Route Distance to CBG = b = c • cos ∂

Sub-feeder Route Distance to CBG (Also see Distribution Plant Distance Algorithms):

If a > .5 • $\sqrt{\text{Area of CBG}}$, then
Sub-feeder Distance = a - .5 • $\sqrt{\text{Area of CBG}} = c$ • $\sin \partial - .5$ • $\sqrt{\text{Area of CBG}}$

If a < .5 * $\sqrt{\text{Area of CBG}}$, then Sub-feeder Distance = 0

Calculating Angle à

If W >= 315° and W < 360°, then ∂ = 360° - W If W >= 0° and W < 45°, then ∂ = W If W >= 45° and W < 90°, then ∂ = 90° - W If W >= 90° and W < 135°, then ∂ = W - 90° If W >= 135° and W < 180°, then ∂ = 180° - W If W >= 180° and W < 235°, then ∂ = W - 180° If W >= 235° and W < 270°, then ∂ = 270° - W If W >= 270° and W < 315°, then ∂ = W - 270°

Calculating Shared Feeder Distance

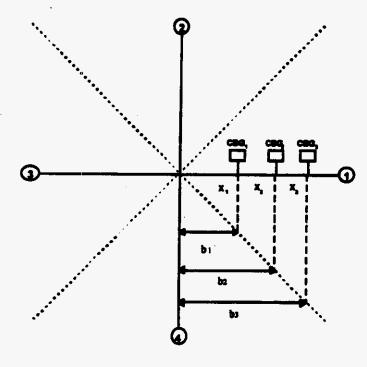


Figure 4

Using Figure 4:

Sort all CBGs by Central Office CLLI

Determine Quadrant for CBG by CLLI

Quadrant $1 = 315^{\circ} - 45^{\circ}$

Quadrant 2 = 45° - 135°

Quadrant 3 = 135° - 225°

Quadrant 4 = 225° - 315°

Sort CBGs by Quadrant, by Main Feeder Route Distance, from smallest to largest.

Determine incremental Main Feeder Route Distances X1, X2, ..., Xn for each quadrant by CLLI.

- Main Feeder Segment X1 = b1 or Main Feeder Route Distance for CBG1
- Main Feeder Segment X2 = b2 b1 or Main feeder Route Distance for CBG2 -Main Feeder Route Distance for CBG1
- For n > 1, Main Feeder Segment Xn = bn bn-1

Total Feeder Distance for CBG1 to CBGn

Total Feeder Distance for CBGn = Main Feeder distance for CBGn + Sub-feeder distance for CBGn

Distribution Plant Distance Algorithms

It is assumed that households are evenly distributed within a census block group. In order to simplify the calculation of the average distance of distribution plant, from the end of the feeder plant to the customer, it is assumed that the census block group area is square in shape. This methodology is shown in the chart below.

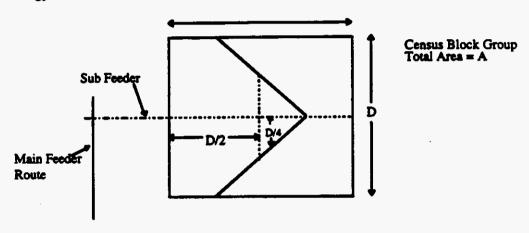


Figure 5

Assume that a census block group is square in shape and has an area of A. Then the length D of each side of the square is calculated as follows:

 $D^2 = A$, where A is the area of the square census block group

$$D = \sqrt{A}$$

Assume that households are uniformly distributed within the census block group and that the feeder plant ends at the edge of the census block group. Then the total averaged distribution plant distance can be calculated as follows:

Total average distance of distribution plant = average horizontal distance of distribution plant + average vertical distance of distribution plant

Average horizontal distance of distribution plant = 1/2 D, because half of the households in the census block group are passed in a horizontal distance of 1/2 D.

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Average vertical distance of distribution plant = 1/4 D, because half of the households in the census block group are passed in a vertical distance of 1/4 D from a line that horizontally bisects the square.

Total average distance of distribution plant = 1/2 D + 1/4 D = 3/4 D

Substituting for D from above,

Total average distance of distribution plant = $3/4\sqrt{A}$

Structure and Placement Algorithms

Structure and placement costs are defined as the capital cost of placing plant and the cost of support structure such as conduit and poles. For use within this model, normal structure and placement costs occur where environmental factors have a minimal impact. An example of normal structure and placement cost occurs when cable is buried with a plow in sandy loam soil. If the terrain presents additional difficulties, where for example, a back hoe, rock saw, or hand digging is necessary, then the cost of structure and placement is above normal.

Structure costs are calculated as a percent of cable costs, based on ratios of a cost per foot to place the plant versus the cost per foot of the plant itself.

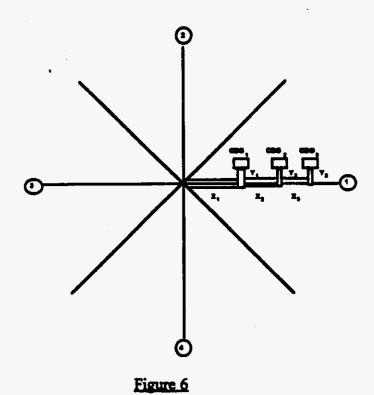
This factor is adjusted by terrain and urban/rural variables to reflect the mix of different placement practices utilized in each setting (e.g. boring, asphalt cut and restore, backhoe). The result is multiplied by cable costs to determine structure costs.

These factors are adjusted for the following four basic considerations:

- · Is the water table depth within the placement depth of the facility type;
- Is the bedrock depth within the placement depth of the facility type;
- Is the area in which the facility being placed urban or rural;
- Does the soil surface texture impact normal placement of the facility.

Segment Cable Size Algorithms

Calculating the CBG loop plant costs requires a number of steps in which data is organized by central office quadrant, as well as by ascending distance along the main feeder routes. An example of this is shown below in Figure 6. This is necessary in order to determine the capacity carried along each feeder segment and the CBGs associated with the capacity. The segment capacity determines the size of the cable used in the segment and therefore affects the cost per cable pair.



As displayed in Figure 6, main feeder segment X1 carries capacity associated with CBG1, CBG2, and CBG3. On the other hand, main feeder segment X2 carries capacity associated with CBG2 and CBG3, while main feeder segment X3 carries capacity only associated with CBG3. Y1, Y2, and Y3 represent sub-feeder segments associated with CBG1, CBG2, and CBG3 respectively. Each sub-feeder segment only carriers the capacity of its associated CBG.

The next step in this process is to determine the technology types for each main feeder route segment (Xn) and each sub-feeder segment (Yn). (The parameters for choosing the three technologies are discussed in the assumptions section.) A main feeder route segment may utilize only copper plant, only fiber plant, or it may use a combination of copper plant and fiber plant. The fiber feeder may utilize SLC 2000 technology, fiber bus technology or both technologies. The mix of technology determines the mix of feeder plant types that determine

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...**;i** :

the costs associated with each CBG. Below are three examples, using Figure 6, that demonstrate the process for determining the size of the segment cable.

Example 1

For the first example, the total loop lengths to serve CBG1 through CBG3 are less than 12,000 feet and therefore all three CBGs use copper feeder plant. In this case, capacity of each feeder segment is calculated as follows:

Cable Capacity for Segment Y1	 Number of Households in CBG1/(Fill factor for the Density Group of CBG1)
Cable Capacity for Segment Y2	 Number of Households in CBG2/(Fill factor for the Density Group of CBG2)
Cable Capacity for Segment Y3	 Number of Households in CBG3/(Fill factor for the Density Group of CBG3)
Cable Capacity for Segment X1	 (Number of Households in CBG1+ Number of Households in CBG2 + Number of Households in CBG3)/(Fill factor for the Density Group of CBG1)
Cable Capacity for Segment X2	 (Number of Households in CBG2+ Number of Households in CBG3)/(Fill factor for the Density Group of CBG2)
Cable Capacity for Segment X3	 Number of Households in CBG3/(Fill factor for the Density Group of CBG3)

Example 2

For the second example, the total loop length to serve CBG1 is less than 12,000 feet. The total loop lengths for CBG2 and CBG3 exceed 12,000 feet and the household density for both CBG2 and CBG3 are greater than five households per square mile. Therefore, CBG1 uses copper feeder plant, while CBG2 and CBG3 utilize fiber feeder plant for SLC Series 2000 technology. In this case, capacity of each feeder segment is calculated as follows:

Copper Cable Capacity for Segment Y1

 Number of Households in CBG1/(Fill factor for the Density Group of CBG1)

Fiber Cable Capacity for Segment Y2

 Number of Households in CBG2/(Fill factor for the Density Group of CBG2)

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Number of Fibers for Segment Y2

 4 * N, where N = (the Truncated Integer of (Fiber Cable Capacity for Segment Y2/672) + 1)

Fiber Cable Capacity for Segment Y3

 Number of Households in CBG3/(Fill factor for the Density Group of CBG3)

Number of Fibers for Segment Y3

 4 * N, where N = (the Truncated Integer of (Fiber Cable Capacity for Segment Y3/672) + 1)

Copper Cable Capacity for Segment X1

 Number of Households in CBG1/(Fill factor for the Density Group of CBG1)

Number of Fibers for Segment X1

 Number of Fibers for Segment Y2 + Number of Fibers for Segment Y3 (Since Fiber is not used to serve CBG1 it is not included in this calculation)

Number of Fibers for Segment X2

Number of Fibers for Segment
 Y2 + Number of Fibers for
 Segment Y3

Number of Fibers for Segment X3

Number of Fibers for Segment
 Y3

Example 3

For the final example, the total loop length to serve CBG1 is less than 12,000 feet. The total loop lengths for CBG2 and CBG3 exceed 12,000 feet and the household density for both CBG2 and CBG3 are less than five households per square mile. Therefore, CBG1 use copper feeder plant, while CBG2 and CBG3 utilize fiber feeder plant for Digital Loop Fiber Bus Technology. In this case, capacity of each feeder segment is calculated as follows:

Copper Cable Capacity for Segment Y1

 Number of Households in CBG1/(Fill factor for the Density Group of CBG1)

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Fiber	Cable	Canac	ity for	Segment	Y 2
	~~~			TEMPERATURE	

 Number of Households in CBG2/(Fill factor for the Density Group of CBG2)

Number of Fibers for Segment Y2

4 * N, where N = (the Truncated Integer of (Fiber Cable Capacity for Segment Y2/672) + 1)

Fiber Cable Capacity for Segment Y3

 Number of Households in CBG3/(Fill factor for the Density Group of CBG3)

Number of Fibers for Segment Y3

 4 * N, where N = (the Truncated Integer of (Fiber Cable Capacity for Segment Y3/672) + 1)

Copper Cable Capacity for Segment X1

 Number of Households in CBG1/(Fill factor for the Density Group of CBG1)

Number of Fibers for Segment X1

 Number of Fibers for Segment X2; (Since Fiber is not used to serve CBG1 it is not included in this calculation)

Number of Fibers for Segment X2

4 * N, where N = {the
 Truncated Integer of [(Fiber
 Cable Capacity for Segment Y2
 + Fiber Cable Capacity for
 Segment Y3)/672] + 1}

Number of Fibers for Segment X3

Number of Fibers for Segment
 Y3

Once each segment's capacity is determined, the correct size cable (and its associated cost per foot) is chosen. The model includes the vast majority of standard cable sizes. The program picks a cable size that meets the capacity exactly or is the next larger increment in cable size available. If the capacity of a segment exceeds the capacity of the largest cable available, then the program chooses the number of maximum size cables necessary, as well as an additional cable to meet the remaining capacity requirements. The final result is a determination of the number of maximum size cables and the size of the non-maximum cable, for both copper and fiber cable, for each feeder segment.

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## Distribution Cable Size Algorithms

The model assumes that all distribution cable is copper and that the distribution function is provided with four equal distribution legs. Thus, the total required capacity of the CBG is divided among four equal length distribution cables. The capacity of each cable is calculated as follows:

Copper Cable Capacity for Each Distribution Segment = Number of Households in CBG/Fill factor for the Density Group of CBG]/4

Once the distribution cable capacity is determined, the correct size cable (and its associated cost per foot) is chosen. The program picks a cable size that meets the capacity exactly or is the next larger increment in cable size available. If the capacity of a distribution leg exceeds the capacity of the largest cable available, then the program chooses the number of maximum size cables necessary, as well as an additional cable to meet the remaining capacity requirements. The final result is a determination of the number of maximum size cables and the size of the non-maximum cable for each distribution leg.

# Feeder Segment and Distribution Leg Cable Costs

Both feeder segment cable costs and distribution leg cable costs are calculated in a similar manner. Using Figure 6, the cable segment costs are calculated as follows:

- Feeder Segment X1
  - Copper Cable Cost
- = Segment X1 Distance Cost per Foot for Copper Cable Size for X1
- Fiber Cable Cost
- = Segment X1 Distance Cost per Foot for Fiber Cable Size for X1
- Feeder Segment X2
  - Copper Cable Cost
- = Segment X2 Distance Cost per Foot for Copper Cable Size for X2
- Fiber Cable Cost
- = Segment X2 Distance * Cost per Foot for Fiber Cable Size for X2
- Feeder Segment X3
  - Copper Cable Cost
- = Segment X3 Distance Cost per Foot for Copper Cable Size for X3
- Fiber Cable Cost
- = Segment X3 Distance * Cost per Foot for Fiber Cable Size for X3
- Feeder Segment Y1
  - Copper Cable Cost
- = Segment Y1 Distance Cost per Foot for Copper Cable Size for Y1
- Fiber Cable Cost
- = Segment Y1 Distance Cost per Foot for Fiber Cable Size for Y1
- Feeder Segment Y2
  - Copper Cable Cost
- = Segment Y2 Distance * Cost per Foot for Copper Cable Size for Y2
- Fiber Cable Cost
- = Segment Y2 Distance * Cost per Foot for Fiber Cable Size for Y2
- Feeder Segment Y3
  - Copper Cable Cost
- = Segment Y3 Distance * Cost per Foot for Copper Cable Size for Y3
- Fiber Cable Cost
- = Segment Y3 Distance Cost per Foot for Fiber Cable Size for Y3

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- Distribution Plant for CBG1
  - Total Copper Cable Cost
- (Average Distribution Plant Distance for CBG1
   Cost per Foot for Copper Cable Size for Each Distribution Leg in CBG1) * 4
- Distribution Plant for CBG2
  - Total Copper Cable Cost
- (Average Distribution Plant Distance for CBG2
   Cost per Foot for Copper Cable Size for Each Distribution Leg in CBG2)
- Distribution Plant for CBG3
  - Total Copper Cable Cost
- (Average Distribution Plant Distance for CBG3
   Cost per Foot for Copper Cable Size for Each Distribution Leg in CBG3)

### Distribution Structure Cost

The cost of distribution structure is calculated individually for each CBG as follows:

Distribution Structure cost = Total Copper Cable Cost for CBG * CBG Specific Weighted Distribution Structure Cost Factor

Where the Weighted Structure Cost Factor =

(Urban/Rural Terrain Specific Cost Multiplier for Buried Cable * Percent CBG Buried Cable) + (Urban/Rural Terrain Specific Cost Multiplier for Aerial Cable * Percent CBG Aerial Cable)

### **Shared Feeder Structure Cost**

Feeder structure costs are calculated in a similar manner to distribution structure costs. However, the feeder plant structure may contain multiple cable types (e.g. copper and fiber) and each segment may carry capacity associated with multiple CBGs. The feeder structure costs are calculated for each segment individually and then allocated to the appropriate CBGs. Sub-feeder structure costs are associated with a single CBG. The cost of segment feeder structure is calculated as follows for the three examples used to demonstrate segment cable sizing.

# Example 1 Re-visited

In the first example, all three CBGs on the main feeder route are served by copper facilities. Therefore, the feeder structure costs and the sharing of the structure are calculated as follows:

Feeder Structure Cost for Segment X1 Per Household =

(Total Copper Cable Cost for Segment X1 * CBG1 Specific Weighted Feeder
Structure Cost Factor)/(CBG1 Households + CBG2 Households + CBG3
Households)

Feeder Structure Cost for Segment X2 Per Household =

(Total Copper Cable Cost for Segment X2 * CBG2 Specific Weighted Feeder Structure Cost Factor)/(CBG2 Households + CBG3 Households)

Feeder Structure Cost for Segment X3 Per Household =

(Total Copper Cable Cost for Segment X3 * CBG3 Specific Weighted Feeder Structure Cost Factor)/(CBG3 Households)

Feeder Structure Cost for Segment Y1 Per Household =

(Total Copper Cable Cost for Segment Y1 * CBG1 Specific Weighted Feeder Structure Cost Factor)/(CBG1 Households)

Feeder Structure Cost for Segment Y2 Per Household =

(Total Copper Cable Cost for Segment Y2 * CBG2 Specific Weighted Feeder

Structure Cost Factor)/(CBG2 Households)

Feeder Structure Cost for Segment Y3 Per Household =

(Total Copper Cable Cost for Segment Y3 • CBG3 Specific Weighted Feeder
Structure Cost Factor)/(CBG3 Households)

Total CBG1 Feeder Structure Cost

 CBG1 Households * (Feeder Structure Cost for Segment X1 Per Household + Feeder Structure Cost for Segment Y1 Per Household)

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Total CBG2 Feeder Structure Cost

CBG2 Households • (Feeder Structure Cost for Segment X1 Per Household + Feeder Structure Cost for Segment X2 Per Household + Feeder Structure Cost for Segment Y2 Per Household)

**Total CBG3 Feeder Structure Cost** 

CBG3 Households * (Feeder Structure Cost for Segment X1 Per Household + Feeder Structure Cost for Segment X2 Per Household + Feeder Structure Cost for Segment X3 Per Household + Feeder Structure Cost for Segment Y3 Per Household))

# Example 2 Re-visited

In example 2, CBG1 use copper feeder plant, while CBG2 and CBG3 utilize fiber feeder plant for SLC Series 2000 technology. Therefore, the feeder structure costs and the sharing of the structure are calculated as follows:

- Copper Feeder Structure Cost for Segment X1 Per Household =
  .9 (Total Copper Cable Cost for Segment X1 CBG1 Specific Weighted
  Feeder Structure Cost Factor)/(CBG1 Households)
- Fiber Feeder Structure Cost for Segment X1 Per Fiber Strand =
  .1 ° (Total Fiber Cable Cost for Segment X1 ° CBG1 Specific Weighted
  Feeder Structure Cost Factor)/(Number of Fibers for Segment Y2 + Number
  of Fibers for Segment Y3)
- Fiber Feeder Structure Cost for Segment X2 Per Fiber Strand =

  (Total Fiber Cable Cost for Segment X2 * CBG2 Specific Weighted Feeder

  Structure Cost Factor)/(Number of Fibers for Segment Y2 + Number of Fibers

  for Segment Y3)
- Fiber Feeder Structure Cost for Segment X3 Per Fiber Strand =

  (Total Fiber Cable Cost for Segment X3 CBG3 Specific Weighted Feeder

  Structure Cost Factor)/(Number of Fibers for Segment Y3)

- Copper Feeder Structure Cost for Segment Y1 Per Household =

  (Total Copper Cable Cost for Segment Y1 * CBG1 Specific Weighted Feeder

  Structure Cost Factor)/(CBG1 Households)
- Fiber Feeder Structure Cost for Segment Y2 Per Fiber Strand =

  (Total Fiber Cable Cost for Segment Y2 * CBG2 Specific Weighted Feeder Structure Cost Factor)/(Number of Fibers for Segment Y2)
- Fiber Feeder Structure Cost for Segment Y3 Per Fiber Strand =
  (Total Fiber Cable Cost for Segment Y3 © CBG3 Specific Weighted Feeder
  Structure Cost Factor)/(Number of Fibers for Segment Y3)
- Total CBG1 Feeder Structure Cost
- CBG1 Households (Copper Feeder Structure Cost for Segment X1 Per Household + Copper Feeder S Structure Cost for Segment Y1 Per Household)
- Total CBG2 Feeder Structure Cost
- Number of Fibers for Segment Y2 *
   (Fiber Feeder Structure Cost for
   Segment X1 Per Fiber Strand Fiber
   Feeder Structure Cost for Segment
   X2 Per Fiber Strand + Fiber Feeder
   Structure Cost for Segment Y2 Per
   Fiber Strand)
- Total CBG3 Feeder Structure Cost
- Number of Fibers for Segment Y3 * (Fiber Feeder Structure Cost for Segment X1 Per Fiber Strand + Fiber Feeder Structure Cost for Segment X2 Per Fiber Strand + Fiber Feeder Structure Cost for Segment X3 Per Fiber Strand + Fiber Feeder Structure Cost for Segment Y3 Per Fiber Strand)

# Example 3 Re-visited

In the final example, CBG1 use copper feeder plant, while CBG2 and CBG3 utilize fiber feeder plant for Digital Loop Fiber Bus Technology. The feeder structure costs and the sharing of the structure are calculated as follows:

- Copper Feeder Structure Cost for Segment X1 Per Household =
  .9 (Total Copper Cable Cost for Segment X1 CBG1 Specific Weighted
  Feeder Structure Cost Factor)/(CBG1 Households)
- Fiber Feeder Structure Cost for Segment X1 Per Fiber Strand =
  .1 (Total Fiber Cable Cost for Segment X1 CBG1 Specific Weighted
  Feeder Structure Cost Factor)/(Number of Fibers for Segment Y2 + Number
  of Fibers for Segment Y3)
- Fiber Feeder Structure Cost for Segment X2 Per Fiber Strand =

  (Total Fiber Cable Cost for Segment X2 CBG2 Specific Weighted Feeder

  Structure Cost Factor)/(Number of Fibers for Segment Y2 + Number of Fibers

  for Segment Y3)
- Fiber Feeder Structure Cost for Segment X3 Per Fiber Strand =

  (Total Fiber Cable Cost for Segment X3 * CBG3 Specific Weighted Feeder Structure Cost Factor)/(Number of Fibers for Segment Y3)
- Copper Feeder Structure Cost for Segment Y1 Per Household =

  (Total Copper Cable Cost for Segment Y1 CBG1 Specific Weighted Feeder Structure Cost Factor)/(CBG1 Households)
- Fiber Feeder Structure Cost for Segment Y2 Per Fiber Strand =

  (Total Fiber Cable Cost for Segment Y2 CBG2 Specific Weighted Feeder Structure Cost Factor)/(Number of Fibers for Segment Y2)
- Fiber Feeder Structure Cost for Segment Y3 Per Fiber Strand =

  (Total Fiber Cable Cost for Segment Y3 * CBG3 Specific Weighted Feeder Structure Cost Factor)/(Number of Fibers for Segment Y3)
- Total CBG1 Feeder Structure Cost = CBG1 Households * (Copper Feeder Structure Cost for Segment X1 Per Household + Copper Feeder Structure Cost for Segment Y1 Per Household)

Total CBG2 Feeder Structure Cost

Number of Fibers for Segment Y2 *
 (Fiber Feeder Structure Cost for
 Segment X1 Per Fiber Strand Fiber
 Feeder Structure Cost for Segment X2
 Per Fiber Strand + Fiber Feeder
 Structure Cost for Segment Y2 Per Fiber
 Strand)

Total CBG3 Feeder Structure Cost =

(Fiber Feeder Structure Cost for Segment X1 Per Fiber Strand + Fiber Feeder Structure Cost for Segment X2 Per Fiber Strand + Fiber Feeder Structure Cost for Segment X3 Per Fiber Strand + Fiber Feeder Structure Cost for Segment Y3 Per Fiber Strand)

# Switching Costs and Circuit Equipment Costs

Switching investments are calculated based on current central office locations. Investments are calculated using DMS 100 technology and two factors that determine the majority of digital switch investments: the common switch costs such as central processor frames and equipment dedicated to billing and data recording and the costs that vary by line, such as line cards. The non-discounted switching costs are calculated in the following manner:

CLLI Common Switching Cost per Line =

(Total CLLI Common Cost * Land and Building Factor * Basic Local Service
Factor)/[Sum of (CBG1 Households .. CBGn Households) * Ratio of Total
Lines to Residence Lines],

where:

Total CLLI Common Cost = \$647,526 (Derivation displayed in Attachment 1)

Land and Building Factor = 1.043

Basic Local Service Factor = .79

CBG1 through CBGn households represent all the households in CBGs associated with a particular CLLI code (switch location);

The Ratio of Total Lines to Residential Lines = 1.75.

Line Sensitive Switch Costs per Household =

Per Line Switch Cost * Land and Building Factor / Switch Fill Factor; where,

Per Line Switch Cost = \$238.87 (Derivation displayed in Attachment 1)

Land and Building Factor = 1.043

Switch fill factor = 0.80.

For households being served by SLC Series 2000 and Next Generation Digital Loop Carrier Systems (AFC) electronic circuit equipment investment must be included in addition to the fiber costs. These equipment investments represent the hardware, software, power pedestals, channel plug-in investments for both the bays in the central office (to connect to the switch) and the remote terminal bays (to connect to the analog copper distribution plant). The non-discounted costs are calculated in the following manner:

SLC Electronics Costs per Household = 500.00/0.80, where \$500.00 represents the investment per line and 0.80 represents the switch fill factor.

AFC Electronics Costs per Household = 550.00/0.80, where \$550.00 represents the investment per line and 0.80 represents the switch fill factor.

# 4. Determining Monthly Basic Local Service Costs

Throughout the BCM process, all cost calculations are derived in terms of investment. In order to determine a monthly cost for basic local service by CBG, the individual investments for the piece parts must be summed to include loop and structure investments, electronic circuit equipment investments, and switching investments. An annual cost factor is applied to total investment and divided by 12 to estimate a monthly cost of basic local service.

For purposes of this model, two different annual cost factors are considered. The two factors represent two views of the appropriate level of expenses attributable to basic local service, and provides upper and lower boundaries for the discussion of the monthly cost of basic service. The first annual cost factor of 31.6765% is based on historical accounting data and total expense levels of the Tier 1 LECs, utilizing the following 1994 ARMIS Form 43-01 source data: Rows 1010-1090; 1120-1190; 1290; 1320-1390; 1410-1490; 1510-1590; 1620-1690; 1705-1790; 1820-1890; and 1919-1920. The second annual cost factor of 22.97% is based on the inclusion of limited expense categories and limited expense amounts, and uses the following assumptions based on the Hatfield/MCI Study approach:

- Investment-related expenses of depreciation and after-tax return on investment (ROI)
  - ROI = 9.5%
  - 45/55 Debt to Equity Ratio
  - 11.0% Cost of Equity
  - Combined Federal and State Tax Rate of 39 percent
  - 18 year Wtd. Avg. Service Life in Calculating Depreciation
- Operating and Maintenance Expenses Partially Attributable to Basic Local Service
  - Network Support
  - General Support
  - Central Office Switching
  - Central Office Transmission
  - Cable and Wire
  - Provisioning
  - Network Operations
  - Call Completion
  - Billing and Collection
- Excluded Expenses
  - Some Customer Services Expenses
  - Marketing Expenses
  - Product Development Expenses
- General and Administrative Expenses
  - 10% Gross-Up included for Overhead

# V. Model Enhancements

Two model enhancements are currently being explored to further refine the BCM process and address outlier issues. The first enhancement involves more accurately determining the density of CBGs in very sparsely populated areas. Another enhancement involves the incorporation of slope data into the model.

The first enhancement addresses the larger, least populated CBGs — those with a household density of less than one household per square mile. Concerns have been raised that the assumption of uniform household density in these CBGs is not sustainable. In order to address this concern, data has been gathered to analyze this problem. There are 3,608 CBGs in the nation with household densities less than 1 household per square mile.

Data was examined for CBGs meeting this criteria in Colorado, which has 227 CBGs with less than 1 household per square mile density. These CBGs represent both mountain and plains locations. In general, the mountain CBGs meeting this density criteria have more clustered development, while the plains CBGs meeting this density criteria generally have a uniform household distribution.

In order to recognize the clustering of households in these CBGs, an algorithm has been developed using underlying road data. This algorithm calculates a new area for the CBG by estimating the number of square miles covered by the road network (every road recognized by U.S.G.S.) utilizing a 1/2 mile buffer on either side of each road in the CBG. This methodology was effective in recognizing clustering, while not affecting those areas with uniform household distributions. It is anticipated that this methodology will be incorporated in the next version of the model.

The second enhancement involves an examination of slope data. Slope information is available for all CBGs, however at this point no specific relationship to loop distance has been developed. In order to examine this issue more closely, specific areas within states, such as Vermont, should be examined using U.S.G.S. contour maps in combination with CBG data and engineering data to determine slopes effect on engineering practices.

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# Attachment 1

# **Derivation of Switch Costs**

The source for switching cost data is Table V-3 on page 168 of Telecommunications Policy for the 1990s and beyond by Walter G. Bolter, James W. McConnaughey, and Fred J. Kelsey (M.E. Sharpe, Inc. Armonk, New York, 1990.) This data presents the per line costs for a Northern Telecom DMS 100 switch for 20 different line sizes, ranging from 1,000 lines to 20,000 lines.

The per line cost data in the source document was converted into a per switch cost in the table below:

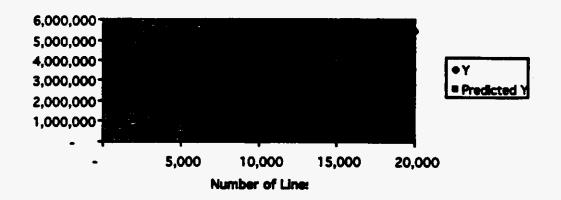
LINE SIZE	DMS100 COST/LINE	DMS 100 SWITCH COST
1,000	<b>\$</b> 885	\$ 885,000
2,000	<b>\$</b> 562	\$ 1,124,000
3,000	<b>\$</b> 454	\$ 1,362,000
4,000	\$ 401	\$ 1,604,000
5,000	\$ 368	\$ 1,840,000
6.000	\$ 347	\$ 2,082,000
7,000	\$ 331	\$ 2,317,000
8.000	<b>\$</b> 320	\$ 2,560,000
9,000	\$ 311	\$ 2,799,000
10,000	\$ 304	\$ 3,040,000
11,000	\$ 298	\$ 3,278,000
12.000	\$ 293	\$ 3,516,000
13,000	\$ 289	\$ 3,757,000
14,000	\$ 285	\$ 3,990,000
15,000	\$ 282	\$ 4,230,000
16,000	\$ 279	\$ 4,464,000
17,000	\$ 277	\$ 4,709,000
18,000	\$ 275	\$ 4,950,000
19,000	\$ 273	\$ 5,187,000
20,000	\$ 271	\$ 5,420,000

The per switch costs for the different size switches were analyzed with a regression equation where the independent variable was line size and the dependent variable was switch cost. The regression analysis yields an intercept term which represents a fixed common cost per switch regardless of switch size and a slope term which represents a per line cost that remains constant regardless of switch size. The output of the regression are displayed below:

Regression Statistics				
Multiple R	0.9999982			
R Square	0.9999964			
Adjusted R Square	0.9999962			
Standard Error	2,755			
Observations	20			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	647,526	1279.639069	506.022621	7.7698E-39	644837.892	650214.74	644837.892	650214.74
X Variable 1	238.873684	0.106822206	2236.18004	1.8819E-50	238.649259	239.09811	238.649259	239.09811

# DMS 100 Switch Cost by Line Size Regression F



The regression results yield a near perfect fit with a fixed common cost per switch of \$647,526 and a cost per line of \$238.87.

# Attachment 2

# **Density Assumption Tables**

# Density% Fill Table

Density	Feeder	Distribution
0-5	65%	25%
5-200	75%	35%
200-650	80%	45%
650-850	80%	55%
850-2550	80%	65%
>2550	80%	75%

Fiber Feeder UG/Aerial Mix Table

Density_	UG%	Aerial%
0-5	60%	40%
5-200	65%	35%
200-650	70%	30%
650-850	80%	20%
850-2550	90%	10%
>2550	100%	0%

Copper Feeder UG/Aerial Mix Table

Density	UG%	Aerial%_
0-5	60%	40%
5-200	65%	35%
200-650	70%	30%
650-850	80%	20%
850-2550	90%	10%
>2550	100%	0%

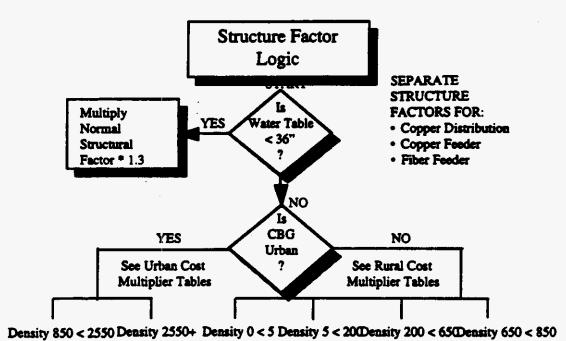
Distribution UG/Aerial Mix Table

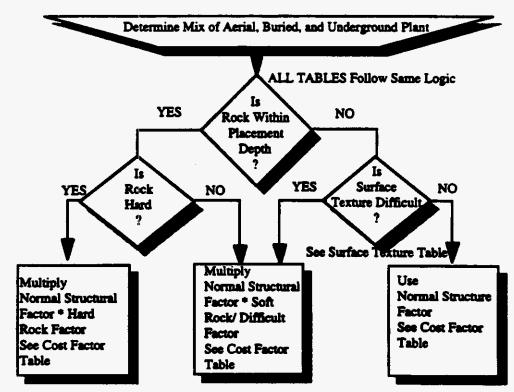
Density	UG%	Aerial%
0-5	90%	10%
5-200	80%	20%
200-650	70%	30%
650-850	65%	35%
850-2550	60%	40%
>2550	50%	50%

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# Attachment 3

## Structure Factor Logic





### **BIOGRAPHY**

Nina W. Cornell 1290 Wood River Road Meeteetse, Wyoming 82433 Tel. (307) 868-2624, or (307) 868-2408; fax (307) 868-2273

#### **EXPERIENCE**

10/88-Present Private consultant. Microeconomic consulting, primarily in fields of telecommunications and antitrust.

2/82 - 10/88 President: Cornell, Pelcovits & Brenner Economists Inc. Microeconomic consulting, primarily in fields of telecommunications, broadcasting, environmental, and antitrust economics. Assignments have included serving as an expert witness before State and Canadian regulatory agencies on many emerging issues in telecommunications such as: the appropriate structure of access charges to interexchange companies; the public interest benefits of competition and of resale; the need to separate the unregulated from the regulated activities of telephone companies; appropriate telephone costing methodology, market rules, and industry structure; the proper costing of Centrex service; the setting of appropriate prices for the sale of embedded terminal equipment; and the appropriate application of cost and demand studies to the design of telephone tariffs; assisting in the cross examination of opposing witnesses and preparation of information requests; sponsoring cellular tariffs in cellular applications to the FCC; and testifying before Congressional committees on the economics of home taping, copyright, and the First Sale Doctrine.

Vice President: Owen, Cornell, Greenhalgh & Myslinski Economists Inc. Microeconomic consulting in telecommunications, broadcasting, environmental, and antitrust economics. Assignments included serving as expert witness in court cases, including U.S. v. AT&T, and before the Public Service Commission of the State of Florida on the public interest benefits of competition in long haul services and of resale, and on standards for access charges for competitors; assisting in preparation of depositions and cross examination of opposing witnesses; preparing an analysis of the economic impact of the broadcasting regulations on the video industry; preparing a cost-benefit analysis of proposed water pollution control regulations for the steel industry and defending it before EPA.

Chief: Office of Plans and Policy, Federal Communications Commission. Responsible for proposing policy and directing medium and long-range planning for the Commission. During this period, developed an in-house economics capability and functioned as chief economist for the Commission, sat at all Commission meetings, and advised the Commissioners on economic policy issues and alternatives. Directed a staff of 28-35 of mixed disciplines, mainly economics and engineering. Projects of the Office covered such topics as appropriate regulation for common carriers, including involvement in developing a new cost manual, further extensions of resale to switched intercity services, appropriate instances to require separate subsidiaries, and proper regulatory treatment of non-dominant common carriers; direct broadcast satellites; public coast stations; and radio; appropriate policies to achieve an improved UHF TV service; children's television; and how to improve spectrum management.

FLORIDA P	UBLIC SERV	VICE COMMISSI	ON
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11299 NOV 14 # FPSC-RECORDS/REPORTING

- 2/77 5/78 Senior Staff Economist: Council of Economic Advisors. Covered all areas of regulation except energy for the Council. Some major areas of activity were development of the regulatory analysis requirement in Executive Order 12044; the Regulatory Analysis Review Group; development of policy on various EPA activities such as prevention of significant deterioration of air quality; beverage container deposit legislation; revisions to the Clean Air, and the Clean Water Acts; minerals policy; and carcinogen regulation; also amendments of the laws governing civil aviation, trucking and communications.
- 6/76 2/77 Senior Economist: Council on Wage and Price Stability. Worked on energy issues. Major activity was as lead economist on the Presidential Task Force on Reform of Federal Energy Administration Regulation.
- 8/72 4/76 Research Associate: The Brookings Institution. First two years were in Foreign Policy Studies working as the economist on an interdisciplinary study on international institutions for managing oceans, outerspace, and weather modification. Last two years were in Economic Studies working with Charles L. Schultze on energy policy and working on safety and health regulation.
- 9/65 6/67 Teaching Assistant: Department of Economics, University of Illinois at Urbana-Champaign.

#### **PUBLICATIONS**

"Regulation and Optimal Technological Change: Not Whether but How," in <u>The Changing Nature of Telecommunication/Information Infrastructure</u>, Computer Science and Telecommunications Board, National Research Council, Washington, D.C., National Acadamy Press, 1995.

"Optimal Costing and Pricing Methodologies for Regulated Monopoly Telephone Companies," in William Pollard, Editor, <u>Marginal Cost Techniques for Telephone Services: Symposium Proceedings</u>, Columbus, Ohio, The National Regulatory Research Institute.

Contributor, "The State of Competition in Telecommunications," in Barry G. Cole, Editor, <u>After The Breakup: Assessing the New Post-AT&T Divestiture Era</u>, New York: Columbia University Press, 1991.

Co-Author, "Public Utility Rate-of-Return Regulation: Can It Ever Protect Consumers?" by Nina W. Cornell and Douglas W. Webbink, in Robert W. Poole, Jr., editor, <u>Unnatural Monopolies</u>, Lexington, Mass.: Lexington Books, 1985.

Co-Author, "Access Charge Theory and Implication: A Slip Twixt Cup and Lip," by Michael D. Pelcovits, Nina W. Cornell, and Steven R. Brenner, in Patrick C. Mann and Harry M. Trebbing, Editors, Changing Patterns in Regulation: The Effect on Public Utility Pricing, Proceedings of the Institute of Public Utilities Fourteenth Annual Conference, East Lansing, Michigan: Institute of Public Utilities Graduate School of Business Administration, 1984.

Co-Author, "Toward Competition in Phone Service: A Legacy of Regulatory Failure," by Nina W. Cornell, Michael D. Pelcovits, and Steven R. Brenner, in <u>Regulation</u>, July/August 1983.

Co-Author, "The Present Direction of the FCC: An Appraisal," by Nina W. Cornell and Douglas W. Webbink, <u>American Economic Review</u>, Papers and Proceedings, Vol. 73, No. 2, May 1983.

Co-Author, "Access Charges, Costs, and Subsidies: The Effect of Long Distance Competition on Local Rates," by Nina W. Cornell and Michael D. Pelcovits, in Eli Noam, editor, <u>Telecommunications Regulation Today and Tomorrow</u>, New York: Harcourt Brace Jovanovich, 1983.

"Direct Broadcast to Home Satellites — Boon or Bane to Broadcasting, Cable and the Public: A Panel Discussion," <u>Jurimetrics Journal</u>, Winter 1982.

Co-Author, "Social Objectives and Competition in Common Carrier Communications: Incompatible or Inseparable?" by Nina W. Cornell, Daniel A. Kelley, and Peter R. Greenhalgh, in Harry Trebing, ed., <u>Energy and Communications in Transition</u>, Michigan State University Public Utilities Papers, 1981.

"Rate of Return Regulation: Protecting Whom from What?", Regulation, November/December 1980.

Co-Author, "Common Carrier Regulation and Technological Change: The New Competition in the Communications Industries," by Nina W. Cornell and Douglas W. Webbink, Joint Economic Committee of Congress, Special Study on Economic Change, Volume 5, December 8, 1980.

Co-Author, Policies for Regulation of Direct Broadcast Satellites, by Florence O. Setzer, Bruce A. Franca, and Nina W. Cornell, Staff Report, Office of Plans and Policy, Federal Communications Commission, September 1980.

"For Spectrum Economics," <u>Mobile Times</u>, February 1980; and "More on the Spectrum Economics Debate: Rebuttal for the Proposal," <u>Mobile Times</u>, March 1980.

"The Politics of Policy Analysis," <u>American Journal of Agricultural Economics</u>, Vol. 61, No. 4, part 2, November 1979.

"Can Safety Be Mandated?" <u>Economic Effects of Government-Mandated Costs</u>, Public Policy Research Center, University of Florida, 1978.

Co-Author, Regimes for the Ocean, Outerspace, and the Weather, by Seyom Brown, Nina W. Cornell, Larry L. Fabian, and Edith Brown Weiss, The Brookings Institution, 1977.

Co-Author, "Safety Regulation" by Nina W. Cornell, Roger C. Noll, and Barry Weingast, in Henry Owen and Charles L. Schultze, eds., <u>Setting National Priorities: The Next Ten Years</u>, The Brookings Institution, 1976.

"Manganese Nodule Mining and Economic Rent," <u>Natural Resources Journal</u>, Vol 14, No. 4, October 1974.

### SELECTED CONFERENCE PRESENTATIONS

Asilomar Conference on Lifting the MFJ Restrictions, A Symposium Sponsored by The Communications Committee of the National Association of Regulatory Utility Commissioners and the California Public Utilities Commission, Asilomar Conference Center, Pacific Grove, California, January 2-5, 1990

"Emerging IntraLATA Rate Structures and the Impact of IntraLATA Pricing on Competition," presented at the 1988 NARUC Advanced Regulatory Studies Program, Williamsburg, Virginia, February 28, 1988.

"Local Telephone Prices and the Subsidy Question," with Roger C. Noll, presented at the Bell Communications Research Telecommunications Demand Modeling Conference, New Orleans, Louisiana, October 25, 1985.

#### TESTIMONY — REGULATORY COMMISSIONS

### Canadian Radio-television and Telecommunications Commission:

• Inquiry Into Telecommunications Carriers' Costing and Accounting Procedures: Phase III - Costing of Existing Services, 9/30/82.

### Public Utilities Board for the Province of Alberta, Canada:

• In the Matter of "The Alberta Government Telephones Act," Being Chapter A-23 of the Revised Statutes of Alberta, 1980, as Amended; And in the Matter of "The Public Utilities Board Act," Being Chapter P-37 of the Revised Statutes of Alberta, 1980, as Amended; and in the Matter of an Application by Alberta Government Telephones to the Public Utilities Board for an Order Approving the Deletion of Certain Basic Terminal Equipment (Voice) Services. (On Proper Conditions to Apply to Local Telephone Company Services in order to have a Competitive Equipment Market), 2/10/83.

#### Alaska Public Utilities Commission

• In the Matter of Consideration of Regulations Governing the Market Structure for Intrastate Interexchange Telecommunications Service, Docket No. R-90-1, 6/5/90.

### Arizona Corporation Commission:

- In the Matter of the Application of the Mountain States Telephone and Telegraph Company, a Colorado Corporation, for a Hearing to Determine the Earnings of the Company, the Fair Value of the Company for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, and to Approve Rate Schedules Designed to Develop Such Return, Docket No. E-1051-84-100, and In the Matter of the Mountain States Telephone & Telegraph Company Filing New Tariff Pages for Approval by the Commission, Which Introduce Access Services, Docket No. E-1051-83-293, 8/23/85.
- In the Matter of the Application of GTE Sprint Communications Corporation for a Certificate of Public Convenience and Necessity to Offer Intercity Telecommunications Services to the Public in the State of Arizona, Docket No. U-2432-84-003, 1/11/85.
- In the Matter of a General Investigation on the Commission's Own Motion into Competition for Intrastate Interexchange Services, Docket No. U-0000-84-058, 9/4/84.

#### Arkansas Public Service Commission:

• In the Matter of an Investigation of Intrastate Separations, Settlements and Intrastate Toll Rates of Return, Docket No. 83-042-U, 5/28/85.

#### Public Utilities Commission of California:

- Order Instituting Rulemaking on the Commission's Own Motion Into Competition for Local Exchange Service; Order Instituting Investigation on the Commission's Own Motion Into Competition for Local Exchange Service; R.95-04-043, et al., 10/27/95.
- Investigation on the Commission's Own Motion into the Second Triennial Review of the Operations and Safeguards of the Incentive-Based Regulatory Framework for Local Exchange Carriers, I. 95-05-047, 9/28/95.
- In the Matter of Alternative Regulatory Frameworks for Local Exchange Carriers and Related Matters, I.87-11-033, 5/18/92; 10/9-10/91.

- Application of AT&T Communications of California, Inc. (U 5002 C) under Rule 18 for a Certificate of Public Convenience and Necessity for Authority to Provide Intrastate InterLATA AT&T MEGACOM and AT&T MEGACOM 800 Service; Application of AT&T Communications of California, Inc. (U 5002 C) under Rule 18 for a Certificate of Public Convenience and Necessity for Authority to Provide AT&T PRO sm WATS California; Application of AT&T Communications of California, Inc. (U 5002 C) for Authority to Provide Intrastate AT&T 800 READYLINE Service, A.88-07-020, A.88-08-051, A.89-03-046, 3/2/90, 5/7/90.
- In the Matter of the Application of the Pacific Telephone and Telegraph Company, a corporation, for authority to establish a rate stability plan for Centrex-CO and associated services, to expand Centrex-CO service to smaller line size customers and to lower certain Centrex-CO service rates, Application No. 83-05-45, 12/27-28/83.
- Order Instituting Investigation to determine whether competition should be allowed in the provision of telecommunications transmission services within the state. And related matters. OII 83-06-01, Applications No. 82-12-21, No. 83-10-20, No. 83-05-16, No. 83-05-26, No. 83-05-40, No. 83-06-54, No. 83-07-21, No. 83-08-26, No.83-09-37, Case No. 83-05-05, 9/26-27/83 and 10/21/83.
- In the Matter of the Application of the Pacific Telephone and Telegraph Company, a corporation, for authority to increase certain intrastate rates and charges applicable to telephone services furnished within the State of California due to increased depreciation expense and Related Cases, Application No. 82-11-07, Application Nos. 83-01-22; 83-06-65; OII 83-04-02, 8/25-26/83.

### Public Utilities Commission, State of Colorado:

- In the Matter of Costing and Pricing for Telephone Services, Docket No. 92M-039T, 2/24-28/92, 12/1-3/92.
- In Re: Application of Mountain States Telephone and Telegraph Company, D/B/A, U S West Communications, Inc., for Approval of a Five Year Plan for Rate and Service Regulation and for a Shared Earnings Program, Docket No. 90A-655T, 10/28/91.
- In Re: Investigation and Suspension of Proposed Changes in Tariffs Filed by the Mountain States Telephone and Telegraph Company, d/b/a U S West Communications, Inc., in Advice Letter No. 2173, Docket No. 90S-544T, 7/23/91, 7/25/91.
- In Re: Rules Prescribing the Provision of Certain Services within Open Network Architecture, Docket No. 90R-512T, 11/26/90.
- In Re: Investigation of IntraLATA Interexchange Telecommunications Markets in the State of Colorado, Docket No. 89I-082T, 2/22/90.
- Investigation and Suspension of Proposed Changes and Additions to Exchanges in Network Services Tariff—Telephone, Mountain States Telephone and Telegraph Company, Denver, Colorado 80202, I & S Docket No. 1766, 11/29/88.
- William C. Danks, Complainant v. Mile Hi Cablevision, Inc., Mile Hi Cablevision Associates, Ltd., and The Mountain States Telephone and Telegraph Company, Respondents; The Mountain States Telephone and Telegraph Company, Complainant, v. American Television and Communications Corporation, d/b/a American Cablevision of Littleton, Inc., American Cablevision of Thornton, Inc., American Cablevision of Wheatridge, Inc., and American Cablevision of Northglenn, Inc., Respondent, 12/11/85.
- In the Matter of the Application of MCI Telecommunications Corporation for a Certificate of Public Convenience and Necessity to Offer Intrastate Telecommunications Services to the Public in the State of Colorado, Application No. 36337, In the Matter of the Application of GTE Sprint Communications Corporation for a Certificate of Public Convenience and Necessity to Offer Intercity Telecommunications Services to the Public

in the State of Colorado and for the Establishment of Initial Rates, Application No. 36360, In the Matter of the Authority to Provide Interexchange Switched Voice Telecommunications Service on an IntraLATA Basis in the State of Colorado, Application No. 36456, 11/2/84.

## Connecticut Department of Public Utilities:

- DPUC Investigation into the Unbundling of The Southern New England Telephone Company's Local Telecommunications Network, Docket No. 94-10-02, 5/8/95 and 5/19/95.
- DPUC Investigation into the Cost of Service of Southern New England Telephone Company, Docket 94-10-01, 2/2/95; 3/1/95.
- DPUC Investigation into the Rate Structure and Operational and Financial Status of the Southern New England Telephone Company, Docket No. 89-12-05, 5/6/91.
- DPUC Investigation into Authorization of Competition for Intrastate Telecommunications Service Pursuant to P.A. 87-415, Docket No. 87-08-24, 2/4-5/88.
- DPUC Investigation into Competition for Intrastate Interexchange Telecommunications Service, Docket No. 85-06-04, 4/2-3/86 and 5/29-30/86.
- Investigation into Compensation to Telephone Companies by Interstate Common Carriers for Unauthorized Intrastate Calls, Docket No. 85-05-23, 7/9/85 and 7/17/85.

### Public Service Commission, State of Florida:

- In re: Petition for Review of Rates and Charges Paid by PATS Providers to LECs, Docket No. 860723-TP, 8/2/90.
- In re: Review of Southern Bell Telephone and Telegraph Company's Capital Recovery Position, Docket No. 890256-TL, 3/29/90.
- In re: Investigation into Equal Access Exchange Areas (EAEAs), Toll Monopoly Areas (TMAs), 1+ Restriction to the Local Exchange Companies (LECs), and Elimination of the Access Discount, Docket No. 880812-TP, 11/2/89.
- In re: An Investigation into the Statewide Offering of Access to the Local Network for the Purpose of Providing Information Services, Docket No. 880423-TP, 2/17/89.
- In re: Investigation into NTS Cost Recovery Phase II, Docket No. 860984-TP, 3/17/88.
- In re: Investigation into NTS Cost Recovery Phase I Levels, Docket No. 860984-TP, 9/17/87.
- In re: Intrastate Access Charges for Toll Use of Local Exchange Services Toll Monopoly Transmission Areas and Bypass Restrictions (Phase I), Docket No. 820537, 5/2/86.
- Application of AT&T Communications of the Southern States, Inc. for a Certificate of Public Convenience and Necessity/Motion for Waiver of Tariff Filing Requirements, Docket No. 830489-TI, 3/13/86.
- In re: Intrastate Access Charges for Toll Use of Local Exchange Services, Docket No. 820537-TP, 9/14/83.
- In re: Petition of MCI Telecommunications Corporation for a Certificate of Public Convenience and Necessity, Docket No. 820450-TP, 3/21/83.
- In the Matter of: Resale of Wide Area Telephone Service and Message Toll Service, Docket No. 1 810239-TP, 1/22/82.
- Application of Microtel, Inc. for a Certificate to Construct and Operate a Microwave System, Docket No. 800333-TP, 11/5/81.

# Georgia Public Service Commission:

- Docket No. 3522-U, 8/15/85.
- Application of MCI to Provide Intrastate Toll Service, Docket No. 3446-U, 2/29/84 (Direct testimony only).

# State of Illinois, Illinois Commerce Commission:

- In the Matter of Illinois Bell Telephone Company Petition to Regulate Rates and Charges of Non-Competitive Serives Under an Alternative Form of Regulation, Docket No. 92-0448, 8/3/93.
- In the Matter of: Independent Coin Payphone Association and Total Communication Services, Inc. Complaint to Reclassify Illinois Bell Telephone Company Pay Telephone Service as a Competitive Service in Illinois Market Service Area 1 (MSA 1), Docket No. 88-0412, 11/14-15/91, 2/5/92.
- Centel Network Communications, Inc., Application for Certification of Service Authority Pursuant to Sec. 13-404; and For Other Authority and Waivers of Commission Rules and Regulations, Docket No. 89-0132, 1/16/90.
- In the Matter of Illinois Bell Telephone Company and Commonwealth Edison Company, Illinois Power Company, Central Illinois Light Company, Central Illinois Public Service Company, and the Illinois Telephone Association and Illinois Cable Television Association, Docket Nos. 86-0192, 86-0228, 86-0229, 3-15-88, 3-22-88.
- In the Matter of the Application of GTE Sprint Communications Corporation for a Certificate of Public Convenience and Necessity pursuant to section 55 of the Illinois Public Utilities Act, to Provide INTRA-MSA Telecommunications Services Within the State of Illinois, No. 83-0634, 11/14/84.
- In the Matter of the Application of AT&T Communications of Illinois, Inc. for the issuance of a Certificate of Public Convenience and Necessity to provide interexchange/INTER-MSA telephone and telecommunications services between and among Market Service Areas in the State of Illinois, 83-0648, 6/15/84.
- Satellite Business Systems Application for a Certificate of Public Convenience and Necessity pursuant to Section 55 of the Illinois Public Utilities Act, to provide INTER-MSA Telecommunications Services Within the State of Illinois, 84-0025, 4/30/84.
- GTE Sprint Communications Corporation Application for a Certificate of Public Convenience and Necessity pursuant to Section 55 of the Illinois Public Utilities Act, to Provide INTER-MSA Telecommunications Services Within the State of Illinois, 83-0633, 2/16/84.

# Indiana Utility Regulatory Commission:

- In the Matter of the Complaint of the Indiana Payphone Association, Incorporated, an Indiana Not-For-Profit Incorporated Association, Complainant, v. Indiana Bell Telephone Company, Inc., Respondent, Cause No. 39474, 5/31/94, 6/2/94.
- Petition of MCI Telecommunications Corporation for a Certificate of Territorial Authority to Provide Intercity Telecommunications Services Within Indiana, Cause No. 37240, 10/3/83 and 11/21/83.

### Iowa Utilities Board

- In re: IntraLATA Presubscription, Discounted Access Charges, and Imputed Access Charges, Docket No. INU-90-1, 8/13/90.
- Docket No. RPU-84-2, 10/17/84.

## Public Service Commission of the Commonwealth of Kentucky

• In the Matter of An Inquiry into IntraLATA Toll Competition, an Appropriate Compensation Scheme for Completion of IntraLATA Calls by Interexchange Carriers, and WATS Jurisdictionality, Administrative Case No. 323, 12/13/89, 10/29/90.

### Louisiana Public Service Commission

- In the Matter of Investigation of the Revenue Requirements, Rate Structures, Charges, Services, Rate of Return and Construction Program of South Central Bell Telephone Company of its Louisiana Intrastate Operations, the Appropriate Level of Access Charges, and All Matters Relevant to the Rates and Service Rendered by the Company, Docket No. U-17949-B (Generic Phase), 12/10/90 and 5/8/91.
- In the Matter of US Sprint Custom Network Services Tariff (UltraWATS Service), Docket No. U-17644, American Telephone and Telegraph Communications of South Central States Inc. (Megacom Service, Docket No. U-17578, and MCI Telecommunications Company Custom Network Services Tariff (Prism I and II), Docket No. U-17767.

## Public Service Commission of Maryland:

- In the Matter of the Application of MFS Intelenet of Maryland, Case No. 8584, Phase II, 8/10/95.
- In the Matter of the Investigation by the Commission on Its Own Motion into Legal and Policy Matters Relevant to the Regulation of Firms, Including Current Telecommunications Providers and Cable Television Firms, Which May Provide Local Exchange and Access Services in Maryland in the Future, Case No. 8587, 8/8/94.
- In the Matter of the Application of MFS Intelenet of Maryland, Case No. 8584, 2/3/94.
- In the Matter of the Investigation by the Commission on its own Motion into the Rates and Charges of AT&T Communications of Maryland, Inc., Case No. 7941, 6/4/86, 7/10/86.
- In the Matter of the Application of MCI City Telecommunications Corporation for Authority to Provide Intercity Telecommunications Service within the State of Maryland, Case No. 7719, 8/29/83 and 11/29/83.

### Commonwealth of Massachusetts, Department of Public Utilities:

- Investigation by the Department of Public Utilities on its Own Motion into IntraLATA and Local Exchange Competition in Massachusetts, D.P.U. No. 94-185, 7/7/95, 10/2/95.
- Petition for an Advisory Ruling as to the Competitive Nature of Public Pay Telephone Service, D.P.U. 88-45, November or December, 1988.
- Investigation by the Department of the cost studies filed by New England Telephone and Telegraph Company on April 18, 1986, pursuant to the Department's Orders in D.P.U. 1731, D.P.U. 86-33, 5/22-23/88.
- Investigation by the Department on its own motion as to the propriety of the rates and charges set forth in the following rates schedules: DPU Mass. No. 10, Part C Sec. 7, Original of table of contents, page 1, Original of pages 1 thru 6, filed with the Department on December 15, 1987 to become effective January 14, 1988 by the New England Telephone and Telegraph Company, D.P.U. 88-13, 5/21-22/88.
- In the Matter of New England Telephone Company, Re: D.P.U. 86-33, D.P.U. 86-124, 9/16/86, 6/18-19-87, 8/3-4/87.
- Petition of the Attorney General for a Generic Adjudicatory Proceeding Concerning Intrastate Competition by Common Carriers in the Transmission of Intelligence by Elec-

- tricity, Specifically as with Respect to IntraLATA Competition, and Related Issues, Filed with the Department on December 20, 1983, D.P.U. 1731, 7/19-20/84.
- Investigation by the Department on its Own Motion as to the Propriety of the Rates and Charges Set Forth in a Tariff for Carrier Access Charges filed by the New England Telephone and Telegraph Company with the Department on October 21, 1983, to Become Effective November 20, 1983, D.P.U. 1661, 2/22/84.

## Public Service Commission of the State of Michigan:

- An Inquiry, on the Commission's Own Motion Into the Status of Competition in the Provision of Telecommunications Services, Case No. U-8716, 6/10/87.
- In the Matter of the Applications of MCI Telecommunications Corporation for special temporary authority or alternatively, for a finding of no jurisdiction over its proposed service, Case No. U-7853, and In the Matter of the Application of GTE Sprint Communications Corporation for a Certificate of Public Convenience and Necessity to Offer Intercity Telecommunications Services to the Public in the State of Michigan, Case No. U-7873, 5/8/84.

### Minnesota Public Utilities Commission:

• In the matter of a consolidated proceeding to investigate the provision of intrastate intercity telecommunications services within the State of Minnesota, Docket No.P-422, P-442, P-444, P-421, P-433/NA-84-212, 2/5-6/85.

#### Missouri Public Service Commission:

- In the matter of proposals to establish an alternate regulation plan for Southwestern Bell Telephone Company, Case No. TO-93-192, 8/93 (no cross examination).
- In the matter of Southwestern Bell Telephone Company's Application for Classification of its Non-Basic Services, Case No. TO-89-56, 11/2/90.
- The Staff of the Missouri Public Service Commission, Complainant, v. Southwestern Bell Telephone Company, A Missouri Corporation, Respondent, Case No. TC-89-14, et al., 1/31/89 and 4/11/89.
- CyberTel Cellular Telephone Company, Complainant v. Southwestern Bell Telephone Company, Respondent, Case No. TC-86-158; Midwest Cellular Telephone Company, Complainant v. Southwestern Bell Telephone Company, Respondent, Case No. TC-87-39; and In the Matter of the Applications of Southwestern Bell Telephone Company for Approval of a New Radio Common Carrier Interconnection Service Tariff, Case No. TR-87-58, 7/1/87.
- In the Matter of the Application of MCI Telecommunications Corporation for a Certificate of Public Convenience and Necessity to offer telecommunications service in Missouri, Case No. TA-84-82, and In the Matter of the Application of GTE Sprint Communications Corporation for a Certificate of Public Convenience and Necessity to Offer Intercity Telecommunications Services to the Public in the State of Missouri, Case No. TA-84-114, 8/8-9/84.

#### Montana Public Service Commission

Presentation on Building Blocks, January 22, 1993.

#### Nebraska Public Service Commission:

In the Matter of the Application of GTE Sprint Communications Corporation For a Certificate of Public Convenience and Necessity to Offer Intercity Telecommunications Services to the Public in the State of Nebraska, Docket C-497, 3/7/85.

- In the Matter of the Application of Northwestern Bell Telephone Company, Omaha, Nebraska, for Approval of Tariff Sheets of its General Exchange Tariff, Application No. C-353, 5/5/83.
- In the Matter of the Effect of Competition in Inter-exchange Telephone Service, Application No. C-506, 9/6/84.

#### Public Service Commission of Nevada:

• The Application of Centel Network Communications, Inc., for a Certificate of Public Convenience and Necessity, to Operate as an Intrastate and InterLATA Resale Carrier, Docket No. 88-1156, 4/20-21/89.

## New Hampshire Public Utilities Commission

• Re: DE 90-002 - Generic Competition Docket, 9/24/92.

### New Jersey Department of Energy, Board of Public Utilities:

- In the Matter of the Application of New Jersey Bell Telephone Company of Approval of its Plan for an Alternative Form of Regulation, Docket No. T092030358, 10/5/92.
- In the Matter of Investigation of Intrastate Tele-communications Competition, BPU Docket 8312-1126, Direct and Rebuttal Testimony, 1/31/84.

## New Mexico State Corporation Commission

• In The Matter Of The Rates And Charges Of U S WEST Communications, Inc., Docket No. 92-227-TC, 3/11/93.

### New York State Public Service Commission:

- Proceeding on Motion of the Commission to Investigate Performance-Based Incentive Regulatory Plans for New York Telephone Company, Case No. 92-C-0665, 12/12/94.
- Petition of Rochester Telephone Corporation for Approval of Proposed Restructuring Plan, Case 93-C-0103 and Petition of Rochester Telephone Corporation for Approval of New Multi-Year Rate Stability Agreement, Case 93-C-0033, by affidavit, 8/94.
- Proceeding on Motion of the Commission to Investigate Performance-Based Incentive Regulatory Plans for New York Telephone Company, Case No. 92-C-0665, 10/7/93.
- Proceeding on Motion of the Commission to Review Regulatory Policies for Segments of the Telecommunications Industry Subject to Competition, Case No. 29469, 9/28-29/87.

### North Carolina Utilities Commission:

- In the Matter of Investigation to Consider Whether Intrastate Offerings of Long Distance Telephone Service Should be Allowed in North Carolina and What Rules and Regulations Should be Applicable to Such Competition if Authorized, P-100, Sub 72, 10/24/84.
- In the Matter of: Resale of Intrastate Telecommunications Services, Docket No. P-100, Sub 61, 11/16/82.

#### Public Utilities Commission of Ohio:

• In the Matter of the Commission's Investigation Relative To Establishment of Intrastate Access Charges, Case No. 83-464-TP-COI, 10/17/83.

#### Oklahoma Corporation Commission:

- In re: Inquiry of the Oklahoma Corporation Commission Concerning the Regulation of Intrastate InterLATA Carriers, Cause No. 29217, 11/16/84.
- In re: Application of MCI Telecommunications Corporation, Cause No. 28713, 3/26/84.

## Public Utility Commission of Oregon:

- In the Matter of the Investigation into the Cost of Providing Services, Docket UM 351, Phase II: Unbundling and Pricing Issues, 10/20/95.
- In the Matter of the Application of MCI Access Transmission Services, Inc. for a Certificate of Authority to Provide Local Exchange Telecommunications in Oregon, Docket No. CP 15, 7/12/95.
- In the Matter of the Revised Rate Schedules Filed by U S West Communications, Inc. for toll service. Advice No. 1291, Docket No. UT 94, 8/30/90.
- In the Matter of the Investigation into the Revenue Requirements and Rate Spread of Pacific Northwest Bell Telephone Company, dba U S West Communications, Docket No. UT 85, 6/8/89.
- In the Matter of the Petition of Pacific Northwest Bell Telephone Company d/b/a U S West Communications, Inc., to Price List Telecommunications Services Other Than Essential Local Exchange Services, Docket No. UT 80, 6/8/89.
- In the Matter of an Investigation Into Presubscription, Exchange Carrier Toll Rates, and Antitrust Implications of the "IntraLATA Access Charges Agreement" Proposed by Pacific Northwest Bell Telephone Company and the Oregon Independent Telephone Association, Docket No. UT-47, 3/18/87.

## Pennsylvania Public Utilities Commission:

- Application of MFS Intelenet of Pennsylvania, Inc., For Approval to Operate As a Local Exchange Telecommunications Company, Docket No. A-310203F002, 2/9/95.
- In the Matter of the Bell Telephone Company of Pennsylvania's Petition for An Alternative Form of Regulation Under Chapter 30, Docket No. P-00930715, 2/7/94.
- Generic Access Charge Investigation, Docket No. P-830452, 11/3/83, 3/21-22/84.

#### South Carolina Public Service Commission:

• In re: Application of MCI Telecommunications Corporation for a Certificate of Public Convenience and Necessity, Docket No. 84-181-C, 7/23-24/84.

### Public Utilities Commission of the State of South Dakota:

• In the Matter of the Inquiry into the Competitive Status of Private Line and Special Access Services in South Dakota, F-3741; In the Matter of the Inquiry into the Competitive Status of Cellular Radio Services, Premise Cable and Inside Wire, Centron and Centron-Like Services, and Billings and Collections Services in South Dakota, F-3742; In the Matter of the Inquiry into the Competitive Status of MTS, WATS, and New Products and Services in South Dakota, F-3743; In the Matter of the Inquiry into the Competitive Status of Optional Services in South Dakota, F-3744, 1/16 & 1/19/89.

#### Public Service Commission, State of Tennessee:

• South Central Bell Telephone Company v. Southeastern Telecommunications, Inc. and Intercall, Inc. TPSC Docket No. U-82-7167 (on resale), 7/3/82 and 7/7/82.

#### Public Utilities Commission of Texas:

- Complaint of Intellicall, Inc Against Private Coin Phone Rates and Practices of Southwestern Bell Telephone Company; Complaint of Advanced Telecom Systems, Inc., Against Private Coin Phone Rates and Practices of Southwestern Bell Telephone Company; Complaint of Intellicall, et al. Against Private Coin Phone Rates and Practices of Southwestern Bell Telephone Company; Application of Southwestern Bell Telephone Company to Revise its Private Coin Service Tariff, Docket Nos. 7122, 7123, 7124, 7152, 6/29-30/87 (Deposition case subsequently settled.)
- In re: Petition of the PUC of Texas for an Inquiry Concerning the Effects of the Modified Final Judgment and the Access Charge Order upon Southwestern Bell Telephone Company and the Independent Telephone Companies of Texas, Docket No. 5113, 11/8/83.
- In the Matter of the Petition of Southwestern Bell Telephone Company for Authority to Change its Rates, Docket No. 4545, 11/3/82.

#### **Utah Public Service Commission:**

- In the Matter of Restructuring the Utah Intrastate Universal Service Fund Which Was Established in Docket No. 89-999-01, Docket No. 93-999-05, November 8, 1994.
- In the Matter of the Request of U S WEST Communications Inc. for an Increase in its Rates and Charges, Docket No. 94-049-05, 2/1/93.
- In the Matter of the Application of U S West Communications for Approval of an Incentive Regulation Plan, Docket No. 90-049-03, and In the Matter of the Investigation into the Reasonableness of the Rates and Charges of U S West Communications, Docket No. 90-049-06, 3/7/91.
- In the Matter of Mountain States Telephone and Telegraph Company, Case No. 88-049-07, 5/24/89.

### Vermont Public Service Board:

- Investigation into NET's tariff filing re: Open Network Architecture, including the unbundling of NET's network expanded interconnection and intelligent networks, Docket No. 5713, 8/31/95.
- Petition of New England Telephone and Telegraph Company, Docket Nos. 5700 and 5702, 6/22/94, 7/21/94.
- Investigation of Proposed Second Vermont Telecommunications Agreement, Docket No. 5540, 2/14/92.
- Joint Petition of New England Telephone and Telegraph Company and the Vermont Department of Public Service Requesting Approval of the Vermont Telecommunications Agreement of October 14, 1987, Docket No. 5252, 5/2-3/88.

### Virginia State Corporation Commission:

- Ex Parte, in re: Investigation to Consider the Impact of Modified Final Judgment in United States v. American Telephone & Telegraph Company, Civil Nos. 74-1698 and 82-0192, 552 F. Supp. 131 (D.D.C. 1972) and In the Matter of MTS and WATS Market Structure, FCC Docket No. 78-72 (Feb. 28, 1983) on the Provision of Toll Service in Virginia, Case No. PUC830020, 9/10-11/86.
- Petition of AT&T Communications of Virginia for Authority to Set Rates and Charges Pursuant to 1 of the Code of Virginia, Virginia Case No. PUC 840023, 7/30-31/84.
- Application of MCI Telecommunications of Virginia for a certificate of public convenience and necessity to provide inter-LATA, inter-exchange telecommunications service and to have rates established on competitive factors, Virginia Case No. PUC 840022, 7/27/84.

## Washington Utilities and Transportation Commission:

- Washington Utilities and Transportation Commission vs. U S West Communications, Inc., Docket No. UT-941464, et al, 6/28/95.
- Northwest Payphone Association, et al. v. U S WEST Communications, Inc., Docket UT-920174, 2/2/93, 12/13/93.
- Washington Utilities and Transportation Commission, Complainant, vs. U. S. West Communications, Respondent, Docket Nos. UT-911488, UT-911490, and UT-920252, 9/28-29/92, 2/9/93.
- In the Matter of Pacific Northwest Bell D/B/A U S West Communications Petititon for an Alternative Form of Regulation, Docket No. U-89-3245-P, 11-28-89.
- Washington Utilities and Transportation Commission vs. Pacific Northwest Bell Telephone Company, Docket No. U-87-1083-T, 3-7-88.
- In the Matter of the Petition of AT&T Communications of the Pacific Northwest, Inc. for Classification as a Competitive Telecommunications Company, Cause No. U-86-113, 4/6/87.
- Washington Utilities and Transportation Commission, Complainant, vs. Pacific Northwest Bell Telephone Company, Petitioner and Respondent, Consolidated Cause Nos. U-86-34, U-86-35, U-86-36, U-86-86, U-86-90, 12/14-17/86, 2/9/87.
- In the Matter of the Petition of MCI Telecommunications Corporation for Classification as a Competitive Telecommunications Company, Cause No. U-86-79, 9/2-3/86.
- Washington Utilities and Transportation Commission v. Pacific Northwest Bell Telephone Company et al., Cause No. U-85-23 et al., 4/29/86.

## West Virginia Public Service Commission:

- Case Nos. 85-259-T-SC, et al., 1/27/86, 2/18/86.
- Case Nos. 85-282-T-GI and 85-022-T-P, 10/29/85.
- Case No. 83-259-T-SC, 11/1/83.

### Public Service Commission, State of Wisconsin:

- Investigation of Intrastate Interexchange Access Charges and Related IntraLATA and InterLATA Compensation Matters, Docket No. 05-R-5, Part C, 2/2/87.
- Investigation of Application of MCI Telecommunications Corporation for Certificate of Public Convenience and Necessity to Offer Intrastate Toll Services (Petition for Interim InterLATA Authority), Docket No. 3258-NC-1, 10/29/84.
- In the Matter of: Proposed Tariff of Wisconsin Telephone Company for Centrex-CO Rate Stability, Docket No. 6720-TR-35, 3/15/83.

### Public Service Commission, State of Wyoming

- In The Matter of the Joint Application of U S West Communications, Inc., and Range Telephone Cooperative, Inc., for Authority for U S West to Sell to Range Telephone the Following Telephone Exchanges, <u>I.E.</u> Gas Hills, Albin, Newcastle, Moorcroft, Thermopolis, Kaycee, Jeffrey City, Carpenter, Osage, Upton, Shoshoni, Pine Bluffs, Burns, Hulett, Worland, and Midwest, and for a Transfer of Requisite Certificate Authority, Docket Nos. 70000-TA-93-151 and 70001-TA-93-7, 9/28/93.
- In the Matter of a General Inquiry by the Public Service Commission into the Telecommunications Needs and Capabilities in Wyoming, General Order No. 67, 8/12/93.

• In the Matter of the Joint Application of U S West Communications, Inc. and Tri County Telephone Association, Inc., for Authority for U S West to Sell to Tri County the Following Telephone Exchanges, <u>I.E.</u>, Lovell, Meeteetse, Greybull, Frannie and Basin, and for a Transfer of Requisite Certificate Authority, Docket No. 70000-TA-93-150 and Docket No. 70011-TA-93-8, 8/12/93; 9/30/93; 10/1/93.

### **TESTIMONY — US CONGRESS**

## Before the:

- House Judiciary Committee, Subcommittee on Courts, Civil Liberties, and the Administration of Justice, 10/27/83, [Economic Impacts of Repeal of the First Sale Doctrine for Audio-visual Works].
- Senate Committee on the Judiciary, Subcommittee on Patents, Copyrights and Trademarks, 10/25/83 [Home Taping of Audio and Video Works].
- Senate Committee on the Judiciary, Subcommittee on Patents, Copyrights and Trademarks, 4/29/83, [Economic Impacts of repealing the First Sale Doctrine for audio-visual Works].
- House Committee on the Judiciary, Subcommittee on Courts, Civil Liberties and the Administration of Justice, 9/22/82, Copyright Aspects of Home Audio Taping].
- Senate Committee on the Judiciary, 4/21/82, [Copyright Aspects of Home Videotaping].
- House Committee on the Judiciary, Subcommittee on Courts, Civil Liberties and the Administration of Justice, 4/13/82, [Copyright Aspects of Home Videotaping].
- Senate Committee on the Judiciary, 7/23/81, [Monopolization and competition in the Telecommunications Industry: Duties of the FCC under S.898].
- House Committee on Energy and Commerce, Subcommittee on Telecommunications, Consumer Protection, and Finance, 5/27/81, [Status of Competition and Deregulation in the Telecommunications Industry: Local Distribution].
- Senate Committee on Government Affairs, Subcommittee on Oversight of Government Management, 10/10/79, [FCC Compliance with Executive Order 12044].
- House Committee on Interstate and Foreign Commerce, Subcommittee on Communications, 6/6/79, [Communications Act of 1979].
- Senate Committee on Commerce, Science and Transportation, Subcommittee on Communications, 6/18/79, [Spectrum Management].

### **TESTIMONY — COURT CASES**

- Clear Communications Limited v. Telecom Corporation of New Zealand Limited, et al., High Court of New Zealand, Wellington Registry, 6/24-26/92, 9/11/92.
- United States Football League, et al., v. National Football League, et al., United States District Court Southern District of New York, 84 Civ. 7484 (PKL), 6/17-19/86.
- International Telemeter Corporation v. Hamlin International Corporation, U.S. District Court - Western District of Washington, No. C76-487, 9/9-10/81.
- U.S. v. AT&T, U.S. District Court for the District of Columbia, Civil Action No. 74-1698, 6/19/81.

### TESTIMONY — ARBITRATIONS

• In the Matter of An Arbitration Before the Right Honourable Sir Duncan McMullin Between Clear Communications Limited, Plaintiff, and Telecom Corporation of New

Zealand Limited, Telecom Auckland Limited, Telecom Central Limited, Telecom Wellington Limited and Telecom South Limited, Defendents, 6/24/93.

## ADDITIONAL ASSIGNMENTS, NO FORMAL TESTIMONY

- Consultation with Austel on implementation of a Decision-Making Framework for reviewing new proposed tariffs for anticompetitive effects, 5/94-6/94.
- Docket UM 351 Before the Public Utility Commission of Oregon, In the Matter of the Investigation into the Cost of Providing Telecommunications Services, Participation in Workshops on costing (Phase I), 8/90-6/94; Participation in Workshops on pricing (Phase II), 7/93-10/94.
- Civil Action No. 87-59-WS, General Electric Company, Plaintiff, vs. Thomas J. Zuchowski, Defendent; Civil Action No. C-87-249-WS, General Electric Company, Plaintiff, vs. R Squared Scan Systems, Inc., Defendent; and Civil Action No. C-90-78-WS, General Electric Company, Plaintiff, vs. R Squared Scan Systems, Inc., Defendent; participation for R Squared Scan Systems, Inc., in preparation for testifying on liability of General Electric Company for antitrust abuse of copyrighted software for maintaining and repairing computer assisted tomography scanners (CAT scanners), 1987-1991.

### FILINGS — State Commissions

"Economic Efficiency and Unbundling the Monopoly Bottleneck: Incompatible or Indispensible?" A Response to the Economic Arguments made by Timothy J. Tardiff, Richard D. Emmerson, and Peter W. Huber on February 8, 1994, on Behalf of Pacific Bell in Docket R.93-04-003 and Docket I.93-04-002 of the California Public Utilities Commission; March 31, 1994

# FILINGS — FCC

"Accounting Separations: A Contradiction in Terms," with Michael D. Pelcovits, Appendix I to Reply Comments of Lee Enterprises, Incorporated, Before the FCC, January 21, 1986, in CC Docket No. 85-229 (Third Computer Inquiry), Attachment to the Written Testimony of Robert D. Ross, President, Call-It Co., Before the Subcommittee on Telecommunications, Consumer Protection & Finance, March 13 Hearing to Examine the Competitive Status of the Bell Operating Companies: Diversification and Its Impact upon Consumers.

### FILINGS — COURT

Affidavits Before the United States District Court for the District of Columbia, Civil Action 82-0192, October, 1990; May, 1987.

#### **EDUCATION**

Ph. D. (Economics), University of Illinois at Urbana-Champaign, June 1972. Doctoral Dissertation: "The Role of the Nobility in Agricultural Change in Russia During the Reign of Catherine II".

M.A. (Economics), University of Illinois at Urbana-Champaign, June 1967.

A.B. (Economics), Swarthmore College, Swarthmore, Pennsylvania, June 1964.

### **AWARDS**

1978-79 Harold and Margarett Sprout Award for the outstanding study on international ecological or environmental affairs.

# PROFESSIONAL ASSOCIATION

American Economic Association

## **OTHER ACTIVITIES**

1986-1988: Representative of the American Economic Association on the Executive Committee of the Consortium of Social Science Associations

1986-1988: Ex Officio Member, American Economic Association Committee on Economic Statistics

## **PERSONAL**

BORN: February 17, 1942, in Boston, Massachusetts

EXHIBIT NO. ____8

**DOCKET NO.:** 950984-TP

WITNESS: DR. NINA CORNELL

PARTY: MCIMETRO

**DESCRIPTION:** 

12/18/95 DEPOSITION TRANSCRIPT

PROFFERING PARTY: STAFF

I.D. # NWC-1

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET
NO. 750984-TP EXHIBIT NO 8
COMPANY/ MY METRO Cornell
WITNESS: MY METRO Cornell



BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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3	In Re: Resolution of petition (s) ) to establish nondiscriminatory rates,) terms, and conditions for resale )DOCKET NO. 950984-TP involving local exchange companies ) pursuant to Section 364.161 Florida ) Statutes.		
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8	DEPOSITION OF:	DOCTOR NINA W. CORNELL	
9	TAKEN AT THE INSTANCE OF:	THE STAFF OF THE FLORIDA	
10	INDIPATOR OF T	PUBLIC SERVICE COMMISSION	
11	PLACE:	GERALD L. GUNTER BUILDING ROOM 362	
12		2540 SHUMARD OAK BOULEVARD TALLAHASSEE, FLORIDA	
13	TIME:	COMMENCED AT 12:00 P.M.	
14	IIME:	CONCLUDED AT 1:20 P.M.	
15	DATE:	DECEMBER 18, 1995	
16	REPORTED BY:	NANCY S. METZKE, RPR, CCR C & N REPORTERS	
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4	Service Commission.		
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# PROCEEDINGS

MR. LONG: I need to find out who is on the line.

MR. LACKEY: This is Doug Lackey. I'm still

appearing on behalf of BellSouth, having received no offers in the mean while.

MR. HORTON: This is Doc Horton and Floyd Self. We are still here too. This time I guess in the 984 docket we've appeared on behalf of LDDS.

MR. MELSON: I guess that's it, Mark. Is that everybody?

MR. LACKEY: Is that it, just Floyd Self, Doc, myself and whoever you've got there in Tallahassee, and Doctor Cornell of course?

MR. LACKEY: Can you tell me, Charlie, who is in -- I'm sorry, Mark, who is in Tallahassee?

MR. MELSON: Rick Melson.

MR. LACKEY: Melson is it?

MR. MELSON: And staff.

MR. LACKEY: Okay. Thank you.

## DOCTOR NINA W. CORNELL

was called as a witness by the Public Service Commission staff and was examined and testified as follows:

#### EXAMINATION

BY MR. LONG:

Q Doctor Cornell, I just have a couple of questions regarding your direct and rebuttal testimony in Docket 950984. Mr. Lackey touched on them at the end of the previous deposition. The first thing I would like to ask you is on Page 3 of your direct testimony, I believe it's dated November 13th.

A I have that.

Q The Florida unbundling direct, you talk about how essential unbundled loops are for competition in Florida.

Could you explain a little more about why they are essential to competition?

A They are essential to competition because, I think for two reasons, and maybe two is the wrong number. I will add them up and tell me whether I've got the right number at the end.

First of all, there is a possibility that at least in some locations loop plant is a natural monopoly, and if you do not have unbundled loops, those customers can have no competitive provision of anything else because they can't get anything but bundled service. It may be that over time loop plant is not a natural monopoly but that the pace of entry would be vastly slower without unbundled loops than with them, and you will bring the benefits of

competition to consumers in Florida faster if you have unbundled loops that have been done technically correctly and priced correctly.

- Q And would you suppose that unbundled loops are more important to firms that do not have any local loop facilities, such as perhaps MCImetro, than they would be to firms that do have some local loop facilities, such as a cable television company?
  - A Maybe, and I would like to explain.
  - Q Okay.

- A It may turn out that the cable television companies are wrong in their assumption that they can in fact provide telephony and cable TV over the same facility. If that turns out to be the case, then they too may need unbundled loops. They also may discover that they want to provide services in areas where their cable facilities do not go, like downtown business districts where most people don't take cable television in their offices, and for that purpose they may need unbundled loops. I agree at the present they are not behaving as they need unbundled loops, but it is not to me beyond the realm of possibility that sometime in the future they may realize that was a wrong decision.
- Q Could you explain a little bit about how you perceive that they are not behaving like they need

unbundled loops?

A Well, in some cases they have posed unbundling and resale. They certainly have not been actively pushing for it in the cases that I've been involved in.

Q Okay. Given what you have characterized as the essential nature of unbundled loops to competition, would you support a requirement that all facilities base local carriers, LECs, cable TV companies, other ALECs that have local loop facilities, offer unbundled loops, or would you just propose that the incumbent LEC offer unbundled loops?

A I would propose that all providers be required to provide unbundled loops, but I have one sort of condition that I would put on that, and that is, that you should not require any entrant to have to make available all of its new plant in the form of unbundled loops for others if it does not want to. In other words, you want to avoid the preemptive buying up of capacity.

Q Could you explain who might preemptively buy up capacity and why?

A Well, the party that would be most likely to try to preemptively buy up capacity is the incumbent. If you had somebody who was putting in new plant, say, to -- Let me give you an example. Let's suppose that you had an ALEC who successfully convinced a developer of a subdivision or the tenant for a new office park going in that that tenant

should, would be better served by the ALEC. The ALEC builds out a fiber loop, and then the tenant sublets space to some other firm, and that firm says, no, I want to have telephone service from the incumbent, and the incumbent goes to the ALEC and says, I need all your loops. You want to prevent that kind of behavior which would then force the occupant of the rest of the office park to switch back to the incumbent or to switch to the incumbent because there would be no more loops for the ALEC.

What I'm saying is you want to be careful not to force an entrant who is trying to come in as a retailer to be a wholesaler right from the outset. It may be that that is what the entrant will discover it is better at and will voluntarily make that shift, but it shouldn't be forced out of strategic anticompetitive behavior by the incumbent.

Q Okay. Going on to Page 7 of your direct testimony, you describe there your rationale for pricing unbundled elements at total service long-run incremental cost. Would you explain to me in detail how BellSouth would fail an imputation test at any other price and exactly what a price squeeze is?

A Price squeeze -- Let me do the second first.

Price squeeze occurs in some of the price for the essential input, plus the cost of the inputs that can be competitively provided are -- is greater than the price

charged for the retail end user service.

- Q Okay. Could you provide me an example?
- A Sure. The common one that, you know, we have been around with for a long time is toll and switched access. If the toll rate is 11 cents, switched access is 10, and the competitive cost of toll are two, you've got a prize squeeze even though switched access is, quote, below, unquote, toll.
- Q Okay. So when you say that the rate is 11 cents, that is the prevailing market rate as set by the incumbent?
  - A That's correct.
- Q And the cost of 10 cents is the switched access price the incumbent charges to the long distance carriers interconnecting with it?
  - A That's correct.
- Q And the two cents competitive cost is the internal cost that the competitor incurs in switching the traffic or billing collection or whatever cost he might internally have?
- A The two cents is the cost the incumbent has doing those things that the competitors also can do for themselves, the switching, the billing, the so on, the marketing.
- Q I missed that. Could you explain that again, what that two cents would be?

A I said the two cents was the incumbent's cost of those functions that the competitors also self supply, namely, switching, marketing, billing, et cetera.

- Q Okay. I guess I'm a little --
- A Let me try again.
- Q Okay.

A Toll service consists of a bunch of components. There is the use of the local exchange to originate and terminate the call. That is switched access also. That function is used both by the incumbent local exchange carrier's interLATA toll service and by an entrant or an interexchange carrier.

The interexchange carrier has to use the switched access of the incumbent. If the incumbent charges 10 cents for that, there are other functions in toll service. There is some transport. There is some additional switching potentially. There is marketing, There is billing and so forth, okay? You with me so far?

O Yes.

A If those other functions, the additional transport, any additional switching costs two cents for the incumbent to perform, where we are looking at economic costs now, it's charged 10 cents for switched access, but it only charges 11 cents for the end-to-end toll product, which is after all the sum of the switched access plus

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other functions. No equally efficient interexchange carrier can compete because they will lose a penny on every sale. And as I'm fond of telling people, if you lose a penny on every sale, you cannot make it up in volume.

Q So are you assuming that the two cents the incumbent incurs in additional costs, that those costs would be equivalent, MCI costs or toll carrier costs, that they would incur similar costs as well?

A I'm saying an equally efficient firm would incur two cents. Now there may be more efficient firms who only incur one and a half cent, and that is great. But what you want is to make the world safe for the equally efficient firm; that is, safe from any competitive pricing.

Q Okay. I think I've got what a price squeeze is.

Could you explain now how BellSouth would fail an imputation test at any other price than TSLRIC?

A If you agree that the loop needs to be paid for in its entirety as we discussed -- I just tried to discuss with Mr. Lackey, in this day of unbundling and competitive entry, if you take the end user price for residential local exchange service, you certainly cannot pass an imputation test if you charge more than TSLRIC. I also am mindful of the fact that your statute, as I understand it, probably would not allow you to charge less than TSLRIC; therefore, you are at TSLRIC. If you do not pass an imputation test,

even so, at the present time, my remedy for that is to fix long-term the proper universal service fund.

O Okay. By failing an imputation test, are you

Q Okay. By failing an imputation test, are you saying that if BellSouth were required to impute as a cost the rates it were charging to MCImetro, that those costs would be greater than the rate it's charging to end users?

A I'm saying the cost for the unbundled components plus the rest of the cost for providing residential local exchange service would be greater than the price they are now charging for residential local exchange service.

Q Okay. And you also stated that BellSouth may fail an imputation test at any rate at present?

A Well, not at any rate obviously, but at any rate that covered costs, yes, when you take into account the flat-rate residential service.

Q Okay. Let me qualify that. That given the Florida statute, which may not allow it to price below TSLRIC, given that, you stated that it may fail -- you're not sure it would pass an imputation test at any rate TSLRIC or above?

A That's correct.

Q Okay.

A That is certainly going to be the case in some locations.

Q Okay. I would like to refer to your rebuttal

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testimony. I'm not sure if you are going to need it or not. You were speaking about this with Mr. Lackey earlier. The two concepts that you and Doctor Banerjee were debating in your testimony were inverse elasticity rule and static and dynamic efficiencies. I'm not an economist, and I'm not real familiar with these. I guess could you try to walk me first through the inverse elasticity rule, how it applies, what it is, and when you would use it?

A That's a long answer that you are going to have to expect now.

Q That's okay. These are my last two questions, so it will make it worth your time.

A Okay. If you were in a world which only had a given amount of demand, demand was not going to grow or change and technology was not going to change, and if the technology that you were using is such that pricing at marginal cost, even long-run marginal cost, do not recover the total cost of the efficient firm, and if you only had one firm in the market, then it is argued that the efficient way to price so that you continue to recover the total cost of this monopoly efficient firm is take marginal cost, figure out how much more than the sum of marginal cost times quantity you need to recover and then mark up price inversely; that is, you would mark up much more the

price of services that are inelastic in demand than you would mark up the price of services that are elastic in demand. The reason this is viewed as efficient is that it is the pricing mechanism that has the least effect, total quantity of output that is purchased. Remember if you raise price, people buy less, generally speaking.

The problem with this rule is both theoretical and practical. This rule is theoretically correct only in a static world, only if it's applied to end user services, retail services, not to intermediate products that are bought to be part of a production process, and it's only accurate if you are working off of what is known as market elasticity of demand, which the firm can only know if the firm is in fact a monopoly. And indeed, it was originally proposed as the optimal way to pay for water when water was owned by a municipal authority and it was basically being taxed. It's in the taxation literature more than anywhere else.

None of those conditions apply in the world that BellSouth inhabits, and none of them apply to the way Doctor Banerjee wanted to use the rule. Telecommunications is clearly an industry in which both demand and technology are changing. Any elasticity information available to BellSouth today is firm elasticity of demand and not market elasticity of demand. Finally, and most importantly,

Doctor Banerjee wanted to apply it to interconnection which is abso -- intermediate good. It is an input needed to produce the final output.

I attack his advocacy of that rule on theoretical grounds. There are also practical problems. BellSouth does not know elasticity of demand information for every product it sells. It also is supposed to work off of marginal cost, not incremental cost, which is the kind of cost information BellSouth has. Finally, if you really were to use it, it would be hideously anticompetitive and, indeed, you could not both apply it and any version of imputation at the same time.

If you have not gathered from that -- I think you asked me when would I use it. The answer is never.

Q Okay. Let me go back over some of the terms you were using to make sure that I understand and maybe get some additional definitions from them. Your last, one of your last comments first, that BellSouth should be using marginal costs and not incremental costs. Are you saying that using the inverse elasticity rule marginal cost is the only relevant cost you should use?

A Well, if you were going to have your use of the inverse elasticity rule meet the economic theory that claims it's efficient, you would have to be using marginal cost.

Q And Bell --

A However, you run a severe risk of having cross subsidies built into your pricing structure. Marginal cost will not -- if telecommunication costs are the way the companies claim they are, marginal cost times quantity will not recover total service long-run incremental costs, which are what you must recover to avoid a cross subsidy.

Q And that is perhaps one of the reasons why BellSouth uses incremental costs and not marginal costs?

A Well, marginal costs are very hard to measure, particularly in telephony, and so incremental costs have always been used in order to pick up some of the capital costs as part of it because, literally speaking, an additional unit of output is not going to cause any placement of new capacity. A unit of output is so small, minute of use, a millisecond of use, whatever it is you are looking at as the marginal one unit, it's so small that you cannot stop what it does to capital cost, which is why Bell companies have always done incremental cost studies with about a 10-percent difference.

What I'm saying is slightly different because I do not know if BellSouth has finally moved to TSLRIC, which is what the world seems to be moving to quite correct.

TSLRIC, which is the standard that you judge cross subsidy by is definitely bigger than marginal cost, both because

there are economies of scale that are fed into marginal cost and look as if the last unit caused them all and because there are volume insensitive costs that get factored into TSLRIC that do not get factored into marginal cost. If you have a circumstance where you take the marginal cost, the product in question is very elastic, you do not mark it up by very much in the inverse elasticity rule if that price is below the price necessary to recover the TSLRIC of the product, so the product would be subsidized.

Q Okay. Also you mentioned that the inverse elasticity rule would only apply if you were using it for retail services and not intermediate services which I assume are like wholesale inputs for other companies or something of that nature, and could you explain why this would be so?

A That comes out of the optimal taxation
literature, which is that the optimal taxes are always
assessed on final consumers and not intermediate products.
Because if you assess them on intermediate products, you
begin to have a spiral build up of costs as the next line
up, so to speak, in the production process. You have to
now recover enough to pay those taxes plus anything else
that they add on, and there is a multiplier effect.
Technically speaking, business local exchange service is

also an intermediate good.

- Q And why is this so?
- A Because businesses use local exchange service as inputs into whatever it is the business does. As a result, technically speaking, if you were really going to be strict to Ramsey pricing, you would not include business local exchange or business toll in the calculation of Ramsey prices either.
- Q And is the inverse elasticity rule and Ramsey pricing the same thing?
  - A Yes.
- Q Could you -- also you differentiated between market elasticity of demand and firm elasticity of demand. I know this is rather basic, but could you explain the difference between those two?
- A Sure. Market elasticity of demand looks at all purchases across all suppliers to see what is the responsiveness of quantity changes in price. Firm elasticity of demand on the other hand looks only at what the firm perceives to be the response of consumers to a change in its price holding the prices of other suppliers constant.

Let me give you a very concrete example. It is widely believed from marketing studies that the demand for fresh milk is quite inelastic in demand. For any given

grocery store, a reduction in price of fresh milk can bring an enormous shift in the quantity of milk bought from that grocery store unless other grocery stores match the price change immediately.

Q And the same for an increase in price?

- A That's right. You'd see a decrease in purchases from that store.
- Q But if the price is increased or decreased in all stores, the demand would stay relatively the same?
- A Exactly, and what that tells you is that for this firm, the demand for fresh milk looks elastic. For the market as a whole, it is inelastic. And it is very important to note the reason the demand for the grocery store in a big city looks elastic is precisely the presence of competition.
- Q So if you were analyzing elasticity of demand, if you found that there was a market elasticity of demand was very low but yet the firm elasticity of demand for any one firm in that market was high, that would be one indication of a competitive market?
- A It certainly would be one thing that would tell you there probably is competition in that market. That's not the way economists normally measure how competitive a market is. But yes, that would tell you that likely is the case, that there is competition there.

Q Okay. Let me see if I have any grasp for this inverse elasticity rule. Say I'm a monopoly company that has a monopoly on electricity and kerosene, and I provide both of those products. Kerosene seems to be a fairly elastic service, and that if I increase my price -- even though I'm a monopoly, if I increase my prices a lot, people will stop buying kerosene. But electricity is not. If I increase my price, they still must buy electricity. If I'm not recovering my total cost of the firm and I have to increase prices somewhere, the inverse elasticity rule would tell me I need to raise prices of electricity and not kerosene?

- A Almost but not quite.
- Q Okay.
- A You need to increase the price of electricity a lot and the price of kerosene only a little.

- A No product is exempt from some price increase under proper application of the inverse elasticity rule, but because the demand for kerosene seems very elastic, it would only get a very small price increase whereas the electricity would get a big one.
  - Q Okay. Thanks.
- Last is the difference between static and dynamic efficiencies. I guess could you explain what they are and

why they are different?

A The difference between them is the assumption about both the quantity of demand and the technology. Static efficiency assumes there is no change in demand other than changes induced by changes in price and no change in the method by which you produce the output, no change in technology.

Dynamic efficiency on the other hand is concerned with having the path of technological change or the path of satisfying exogenously changing demand; that is, demand that is changing not because of a change in price, in the most efficient manner possible.

Those are very, very different concepts. Most of what you will see economists write up about efficiency is all based on analysis from static economic efficiency. And one of the things that I'm trying to say here is, hey, guys, this isn't a static industry at all. You should not be applying rules that mostly, only come with efficiency benefits in a static sense.

- Q Could you give me some examples of industries where static efficiencies would be appropriate?
- A Static efficiency is probably more appropriate in book publishing.
  - O Could you repeat that please?
  - A Book publishing maybe. We are right now at a

time when we are going through a lot of dynamic changes as the computer revolution works through all kinds of other industries. I'll have to think of something that isn't affected by adding computers into the mix, standard house construction, although even there some materials are changing. The way houses are built is not changing very much now from the past. Most likely water distribution.

Q So is it safe to assume that the preponderance of industries, including telecommunications, are undergoing significant enough changes over time that dynamic efficiencies are really the only ones worth measuring?

a I don't know that you can measure them very easily in advance. You'll only see it ex-post, so to speak, but I would say that more than many other industries. I was really trying to be very precise in giving you industries that really genuinely were static. I think you make a lot more mileage looking at a lot of the big manufacturing firms and using static efficiency concepts there than do you in telecommunication. I think you'll get some very wrong answers as to what is good public policy in telecommunications that, as I say, you might not in big manufacturing firms producing detergent or soap or things like that by using public policy precepts that come from static efficiency concerns.

Q Does the length of time you are looking at also

have a determination, say, in the production of soap, if you are looking at in five years the production of soap may not change significantly, but in 50 years there might be large technological advances in manufacturing processes?

A That is part of why I'm saying what I'm saying.
You can expect some significant changes in technological
schemes of producing telecommunication services in five to
ten years. I'm not sure you can in soap.

Q Okay. That's all I have.

MR. LONG: Thank you for the free lesson.

THE WITNESS: You're welcome.

MR. LACKEY: This is Doug Lackey. Am I next?

MR. LONG: Yes.

MR. MELSON: Yes, sir.

#### **EXAMINATION**

#### 16 BY MR. LACKEY:

Q Doctor Cornell, I have several questions, and I will try to keep it all to under a half an hour as I said I would.

The first thing I want to do is follow up on some questions that you were just asked. I wrote down that you said you thought that generally TSLRIC, the TSLRIC would be larger than marginal cost. Did I get that right?

A Yes.

Q Do you subscribe to the notion that the telephone

industry is a declining cost business?

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- A Yes, in the way I use that term.
- Q Well, then I guess I'm going to have to ask you how you use that term.

There are two ways to use the term. The way that I was saying yes very definitely to is that the costs today, producing a given quantity of output, are definitely less using today's technology than that same quantity would have cost to produce using yesterday's technology. pace of technological change is dropping costs per-unit cost. There is also a sense that that term gets used, which is that the cost per unit of producing, say, quantity X on a per-unit basis is higher than the cost per unit of producing 2X. That latter one I do not know. That to me is an empirical question. Lots of the cost that I see produced by local exchange companies are linear. This does not suggest much less costly per unit than X.

Q All right. In making your earlier statement using your definition of declining cost, you talked about technological change. By that do you mean the cost of switching is declining on a per-unit basis for instance?

A Yes.

- Q All right. What about the cost of labor, is it increasing or decreasing?
  - A That is a question that depends upon both the

movement of labor rates and productivity. In some places it's probably increasing and in some places probably decreasing.

- O So on balance for Florida, you don't know?
- A I don't know a balance. As I say, there are probably some types of labor for which costs are increasing and some types of labor for which it's decreasing. I don't know for BellSouth overall as a whole.
- Q How about the cost of running a local loop, is it increasing or decreasing in your opinion?
  - A Running a local loop?
- Q Yeah, running a local loop from the central office to a subscriber's house.
  - A Installing one?
- O Yeah.

- A I would say over time it is now beginning to decrease with some of the technologies, particularly for feeder plant.
- Q Does that mean that in the past it's been increasing?
- A While the technology stayed stagnant and labor costs probably went up, it was increasing to lay end to end copper. With fiber and concentration techniques, I'm no longer convinced that is the case, and indeed some people at U.S. West have said I'm correct in that, that the cost

1 is now beginning to come down from what it would have been 2 ten years ago.

Q Okay. Do you have any idea what the average cost of installing a loop from a central office to a house would be today in Florida?

A I haven't looked at that kind of cost information.

Q Back to the marginal cost question again. I take it from your earlier answer, that you said that most Bell companies produce incremental cost studies and not marginal cost studies; is that correct?

A That's correct. I only know of two Bell operating companies who even claim to have produced marginal cost studies.

Q And by the use of the word "claim," does that mean you disagree with what they produced or disagree that what they produced was marginal cost?

A I disagree that what they produced was marginal cost.

Q Do you know of any telephone company outside of the Bell system, any local exchange company I should say that uses marginal -- or produces marginal cost studies?

A No, most of them don't want to produce cost studies at all.

Q Okay. So from your perspective -- for instance,

it wouldn't surprise you if BellSouth had no marginal cost studies?

- A No, it wouldn't.
- Q Okay. Now I want to explore this issue just a little bit more with you on the price elasticity that we were talking about. Let's assume that we've got a firm that is a local exchange company and the only service it provides is literally local exchange service.
  - A Okay.

Q No toll, no access, no nothing, just local exchange service, and it does so by providing local loops to end users, switching the local loops, hauling the calls between central offices and terminating the calls, just a basic connectivity for local calls. Then let's assume a competitor comes in, an ALEC, and wants to buy on an unbundled basis pieces of that network. If I understand you correctly for the local loop -- Let's talk about the local loop first. You think that the ALECs should be able to buy the local loop at TSLRIC?

A Yes.

Q Okay. And if I understand what you're saying about the price elasticity or the not applying -- Well, I'm sorry, I got myself confused.

You were saying that you didn't use the elasticity analysis for intermediate goods; is that right,

goods and services?

A Let's be very clear, Mr. Lackey. I do not believe in using Ramsey pricing under any circumstances in a dynamic industry. I do not think you could use Ramsey pricing in telephony because you don't have the data to do it correctly. In any event, if you did, you would not have the efficiency properties claimed for it if you included intermediate goods in its application.

Q All right. In any event, you believe that you cannot mark up the intermediary functions I've described here, the local loop, but that the price should be TSLRIC when it is sold to an ALEC?

A I believe the price should be TSLRIC. Obviously in the use of the word "can," it is possible to mark it up. I think it is bad public policy and inefficient to do so.

Q All right. Now in that situation, then that means that all true joint and common costs of the LEC have to be recovered from its retail local exchange services; is that correct?

A Correct.

Q All right. And what you would have then is a situation where the purchaser of the local loop at TSLRIC, makes no contribution at all to the joint and common overheads incurred by the local exchange company?

A Correct. It makes contribution to its own.

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All right. Now can you think of any other product, or can you give me four or five examples of other products that are intermediate products where the purchaser of the intermediate product doesn't make any contribution to the selling firm's joint and common overheads?

Right off my head, what I would have to think of Α is examples of essential inputs. You see this is not just like a product. The reason we are in this is because it is an essential product. I have not made the argument that all intermediate goods should have no markup even though in fact the optimal taxation literature that is what they say. What I'm saying is you should not do it for any essential product.

In my example would a local loop be an essential product and not subject to any markup?

But I would not say the same, for example, of an Α unbundled port.

So you believe that an unbundled port could be marked up above the total service incremental, long-run incremental cost?

I do. Α

How about the transport between two COs for the Q transport of a local call, could it be marked up?

Yes, if -- and my if is the following -collocation is not marked up and if other firms can share collocation space, that is, if -- Let me be very concrete just so that everybody understands. If MFS has a collocation space and trunking that runs out of it from central office A of BellSouth, they can resell that capacity to MCI or somebody else, that you have a market, a competitive market for interoffice transport, then I have no problem with interoffice transport being marked up.

Q Let's explore that for just a moment. Let's assume that MCImetro provides its own local loop between the customer and, say, a LEC CO where MCImetro is collocated, okay? If I understand correctly, MCI would carry the call over its facility from the customer to MCI's facility, MCImetro's facility that is collocated with the LEC, and then MCI would hand the call off to the LEC's switch for subsequent transport to the called party. Does that form of connectivity make sense to you?

A Well, no, not really because if MCI is providing its own local loop, I don't think it would take it to a collocation space in a LEC's central office, that is one of my problems I'm having following what you're saying.

Q All right. Well, let's assume it differently then. Let's assume that they buy the LEC's -- MCImetro buys the LEC's local loop from the customer to the central office where MCImetro has been collocated. Does that portray a more realistic situation you think?

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Q And would MCI have its own switch in that collocated facility, or would it just be some kind of an apparatus or equipment that would be used to transfer the call to the LEC's switch?

A I don't think it would be -- The example you are using I think is not the way it would work, and I would like to explain why.

Q Please.

I think if MCImetro is collocated in a LEC's central office it would be because it had purchased unbundled loops, which is to take those unbundled loops on past the LEC's central office to its own switch in order to provide dial tone. Dial tone itself comes from the switch, and so it would have a collocation space in which it would have -- if this is really going to work, it would have to have concentration equipment because that is the most efficient way to get those loops from the central office of the incumbent to the switch of MCImetro. Then there would be transport from which those concentrated loops would be put, and if MCImetro also had transport equipment there and transport itself between there and its own network, then it would supply the transport. But what I was saying earlier was it would want -- for me to say that interoffice transport is competitive, MCImetro should be able not to

have the collocation space but to have its concentrator in MFS's, let's say, collocation space in that same central office that we were discussing in order to put the concentrated loops of MCImetro onto MFS's transport. At that point transport itself becomes competitive, that is, assuming the collocation rates are at TSLRIC and no higher.

Q Okay. If I understood what you just said, let's assume a BellSouth central office and located in that central office is a facility belonging to MCImetro and a facility belonging to MFS, and what I think you said was if calls come in to MCImetro there, as long as MCImetro has the option of either transporting the calls itself to its own end office or purchasing transport from MFS or purchasing transport from BellSouth, then you wouldn't object to a markup for the transport cost offered by BellSouth.

A With one correction to what you said, which was that MCImetro would not have to have its own collocation facility in that central office. For transport to be truly competitive, MCImetro should be able to come in with its routes and either use MFS or BellSouth in your example; other wise, it is constrained to use BellSouth and transport is not competitive.

Q Okay. Let me see if I can straighten out my example then. Under the way you see it, MCImetro should be

able to purchase unbundled local loops from BellSouth, and if those local loops -- those local loops can be terminated at BellSouth's switch and then transported to MCImetro, or those loops can then be transferred to a collocated MFS facility and MFS can transport those. That's the situation where you would say there was competitive transport?

A No, sorry to be so precise, Doug. You don't -excuse me, Mr. Lackey. You don't connect the loops that
are going to be unbundled loops used by MCI to BellSouth's
switch. You connect them either to BellSouth transport or
to MFS transport. In either case, for this to be economic,
you have to do it with concentration at the central office,
taking place at the central office.

Q Let's see if this clarifies it. What you are talking about is cross-strapping the loop to transport without any intermediary switching function in your examples?

A That is correct. No intermediary switching, but it is really like connecting it to the beginning of a feeder plant.

Q All right. I'm thinking. I'm still here. Okay, and those circumstances where there are alternatives, you wouldn't mind a markup because presumably if the markup was too great you would simply move to the competitor's facilities, okay. All right.

I'm looking through my questions. I'll be back with you in just a second.

I want to talk to you a little bit about the imputation test that you were describing earlier. I want to lay out two different scenarios and see if you think what I've laid out represents the same scenario or different scenarios, and let's use access and toll as my example.

A Okay.

Q Would you agree that -- I guess I need some preliminary facts. Would you agree that generally for an LEC the switched access network and the toll network are the same?

A I believe they either are or should be. Not all local exchange carriers have said they are.

Q Okay. Now when you have toll competition and the competitor is required to buy access because there is nothing else available from the local exchange company, you think that the retail price of access that the competitor pays should be added to the incremental cost providing the LEC's toll service and that ought to be the imputation standard?

A No.

Q Did I get that right?

A No.

Q All right. Tell me what you think it should be using the scenario I've laid out for you.

A There are two sets of toll costs that we need to talk about, LEC's toll. One is the cost of the switch accessed function, which is using the local exchange to originate and terminate the toll call. The other is all the other costs of toll. And for convenience, if you don't mind, I would like to call it the access cost and the non-access cost which together make up toll costs.

Now what I said -- The proper imputation standard, and I do disagree with Doctor Banerjee on this, is the price charged for the access function through other carriers, plus the non-access cost of the incumbent must be no higher than the incumbent's price.

Q Okay.

A It can be below that, but it cannot be above that.

Q All right. And I just want to make sure I understand the details of it. Let's assume that a call originates with Customer A and Customer A has pre-subscribed to MCI, let's say, and the call leaves originating customer, hits the local company's switch, is then taken to MCI's, pop, travels off into the world. The local company charges MCI access for that originating call, correct?

1 A Correct.

Q And it's supposed to recover, I don't know, the cost of switching the call to central office and whatever access includes?

A Right.

Q Now let's assume that the customer makes the same call except it's a toll call handled by the local exchange company, all originates with the customer, hits that first switch and then goes off into the toll network.

A Right.

Q There are at least some common elements of cost in both of those calls, correct?

A Correct.

Q So when you say you take the retail access or the access charge charged to MCI in my example and add to it to the non-access cost of toll, you are not suggesting that the cost of that original switch be included more than once in the imputation price, are you?

A That's the point. That was why I did the correction of what you said. The way you had said it originally you would have included a double count of the cost of the original at the switch.

Q Okay. Another way to look at this then, wouldn't it -- Wouldn't another way to look at this, be that you would take the total cost of the toll call and add to it

the lost contribution from the access call, wouldn't it bring you back to the same number?

A No.

Q Well, if you included the cost of the local loop and the switching that would otherwise be included in access, if you included those costs in the cost of the toll call and simply added the lost contribution from the access back to it, why wouldn't it equal the same number?

A I have yet to see a local exchange company that says it's the same cost to provide switched access as to provide the switched access component of their own intraLATA toll service.

Q Well, I thought you said that they ought to be the same.

A I said they ought to be, but the cost studies that appear do not make them the same, do not show them to be the same.

There are some aspects of switched access that make it clear they wouldn't be the same partly because of things the local exchange carriers have insisted upon, like entrant facilities instead of having initially allowed collocation. So you have a whole series of reasons why the cost to provide switched access appears higher than the cost of switched access used to provide toll.

The very reason I oppose Doctor Banerjee's lost

contribution plus incremental cost of toll is because that forces those costs onto -- either exchange carriers, and it's anticompetitive and creates an incentive for the local exchange carrier to keep on finding new ways to make switched access more costly to provide than the same functions provided as a part of their own toll service.

- Q Well, let's break that down then. If the cost should be the same, which is one of the things I think you suggested they are, then the imputation test either as I described it or as you described it should bring you to the same result in that theoretical case, shouldn't it?
  - A In the theoretical case it should.
  - Q Okay. Now let's take the --
  - A In practice it never does.
- Q Let's take the next step. Let's assume that there are actually more costs in providing access than there are in providing the toll call; that is, the access costs incurred are actually higher than the LEC would incur for providing a toll call. In that circumstance, wouldn't imputing the retail cost of access plus the additional cost of toll generate too high a figure?
  - A No, and I would like to explain why.
  - Q Okay.

A What you want is the benefits of competition. By definition, in this discussion, there is no possibility of

competition for the switched access portion of the call.

Q Okay.

A The only way you can have the benefits of competition is if parts that can be provided competitively compete with the part that can be provided competitively; that is, the part that can be provided competitively by an interexchange carrier competes against the very same portion of the LEC's provided toll call. You do not get that event unless you impute the price of switched access, not the cost of toll plus lost contribution. Even if it is more expensive, and I would like to hang a big caveat on that, acceptance of that hypothetical, even if it were more expensive, I should say, to provide switched access in the most efficient way to an interexchange carrier than to the LEC, if you want the benefits of toll competition, you have to nonetheless do imputation the way I said.

The second piece that I wish -- the big caveat is, I don't see any evidence that switched access was provided in the most efficient way to interexchange carriers. And the result is that a second reason you want to use my imputation standard is to take away some of the incentive to make the cost of switched access more costly than necessary solely to be anticompetitive.

Q Well, let's pursue that. Let's assume just for the sake of these questions that for some reason providing

access does cost more than the cost the LEC would incur in providing a toll call, and it may seem inappropriate to you, but let's just assume that so I can understand the principle here. In your understanding that in that situation as the imputation test, the LEC should still be required to impute the retail price of access plus its non-access cost to tolls, and that that raises the cost and therefore the price above what it should otherwise be for the LEC?

A I don't know what you mean about above what it otherwise should be. How --

Q Well, let's use numbers then. Let's assume that the real cost of access is five cents a minute.

A Can I finish what I was saying before you start up again?

Q Oh, I thought you said you didn't -- well, go ahead.

A I then went on to say I didn't know what you meant by this, but what I was talking about was what a price floor should be.

Q Okay. Like I said, I'm trying to get the principle in hand. Let's assume -- are you through, I'm sorry, ma'am? Doctor Cornell?

A You go ahead.

Q All right. Let's assume that the actual cost

that we can agree upon for access is a nickel a minute, and let's assume that the actual cost of a toll call is four cents a minute, okay? However improbable you find that, let's just set up that scenario so we can see the difference.

A Okay.

Q Under your -- And let's assume that the LEC is charging four and a half cents for the toll call making a half a cent above its cost, okay? As you would apply the imputation rule, you would require the LEC to impute five cents into its rate which means it would have to charge more than it was presently charging for toll in order to meet the imputation standards you offer?

A That's correct. The hypothetical you've given me is blatantly anticompetitive.

Q Well, it's only anticompetitive if the costs are stated incorrectly, isn't it?

A No. It's blatantly anticompetitive to charge your rival more for part of the service that is an essential input for that rival than you charge for the end user service in its entirety.

Q Even if it's fully cost justified?

A If what you want to do is to have competition for the portion of the cost included in the four cents, that are the non-access part of the costs.

Q Well, if I had the cost right, under your imputation standard, your version of competition would be more carriers, but the price would be higher than what the LEC was charging.

A Well, my problem is I have not accepted your hypothetical as having any relevance to the real world, that is to say that these costs would look like this in the real world, they don't.

Q Have you examined any BellSouth cost studies in Florida?

A I haven't examined -- Yes, in the past, but not recently, but I have examined Bell's operating company cost studies across the country, and they do not look like this.

Q Well, do you recall earlier you couldn't recall what the BellSouth cost studies looked like, could you?

A I said I haven't looked at any recently, but I can tell you this is not an accurate depiction of the relative cost of switched access and of toll.

O In Florida?

A Anywhere. You cannot get to this result,

Mr. Lackey, once you take into account marketing costs, you cannot.

Q Once you take into account marketing costs?

A Marketing costs are a cost of toll. You do not market switched access.

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O Does BellSouth market toll?

A If it wants to -- In a competitive market, it is going to market toll, yes. If it wants to provide toll in a competitive market, yes.

Q Well, wouldn't you expect that the marketing cost of BellSouth and the competitors would be -- well, either relatively the same or alternatively a matter of choice among the providers?

A Yes, but you weren't comparing the cost of toll to BellSouth and the cost of toll to MCI or a competitor. You were comparing the cost of switched access provided by BellSouth and the cost of toll provided by BellSouth. What I said is you cannot get this cost relationship when you properly take into account all of the costs of toll.

Q Now you want BellSouth to provide the local loop at the total service long-run incremental cost, correct?

A Yes.

Q Should anybody be able to build a local loop at that same total service long-run incremental cost?

A I genuinely do not understand your question.

What do you mean should anybody be able to build it?

Q If MCI -- Doesn't total service long-run incremental cost develop the cost of putting in or installing a local loop?

A Total service long-run incremental cost takes

into account the cost of the entire quantity of loop, and it may be as I said way back when, either this or the earlier deposition, that in some locations, local loops may be a natural monopoly. That means only one firm can profitably call local loops.

- Q All right. Let's parse it down that way then.

  In those areas where local loops are not a natural monopoly, that is, it's not cost prohibitive to build out a second loop, would those be the areas where you'd generally find high concentrations of customers, urban areas?
  - A At least some urban areas.

- Q Okay. Not all urban areas, and some rural areas
  I suppose would be the high-cost areas?
- A Some urban areas may be high-cost areas because of congestion cost.
- Q Okay. In an urban area that is not a high-cost area, is the LEC's local loop still an essential facility?
  - A Maybe in parts of that urban area.
  - Q Well, in the parts that are high cost?
- A Yes. I'm trying to think of how to explain this to you. To say that you can build it in an urban area may not be a correct statement because you may have incorporated too much geography in that area where loops may or may not be a natural monopoly.
  - Q Does the ALEC get to purchase the unbundled local

loop irrespective of whether the individual loop being purchased is in a high-cost area or a low-cost area?

A If I had my druthers, we would have a D-averaged loop rate. You wouldn't be having the situation of high-cost loops being purchased at average loop cost.

Q In that situation the ALEC could simply choose whether to buy the unbundled local loop if the cost were the right price, correct?

A You lost me. I'm sorry, I didn't understand the question.

Q Well, I thought you said that if you had your druthers you would break the access lines down into D-averaged cost, and I presume that you would charge a higher cost for the access line in a high-cost area, lower cost for the access line in a low-cost area?

A That's correct.

Q And then the ALEC would be able to come in and make its choice about what areas they wanted to serve and what access lines it wanted to purchase based on the real cost of those access lines?

A That's correct.

Q And I presume by the same token then you would price the -- Would you price the end user service based on the D-average cost of the access line?

A Business, yes. For residence, no.

1 Q Why do you differentiate?

- A Universal service reasons. I would have a D-averaged universal service fund that would make up the difference.
- Q Just a couple more questions. I want to talk about the run between an end office and an ALEC's switch, if you will, Southern Bell end office and MCImetro switch if I can call it that. Is it the run between those two offices where you need a loop concentrator?
- A You need the loop concentrator at the central office of BellSouth and transport carry the now concentrated loops between the BellSouth central office and the MCI network.
- Q Could you have loop concentration at the BellSouth office and have someone else transport the calls between BellSouth's office and MCImetro's office?
- A Ideally, yes. If MFS already had a plant there, the most efficient is to allow MCI to choose -- excuse me, MFS and BellSouth to compete to be the transporter once those loops are concentrated.
- Q Do IXEs currently have facilities that run between end offices and the IXE's switch?
  - A No.
- Q And do they have the same concentration issue, the local calls are concentrated in the local exchange

company switch and then pass down a pipe of some sort to the IXE's switch?

A In the case of toll traffic it is actually the switch that performs the concentration function so that what comes out of the local exchange company switch onto whatever facilities end up going to an interexchange carrier, traffic has already been concentrated and trunked.

- Q All right. In this case are you talking about a concentration that happens outside the switch?
- A Yes, what you are now seeing is that feeder plant. The most modern feeder plant is not really a kind of multiplexing but is actually a concentrating so that there are not dedicated channels between, once you get up on feeder, between the end user and the switch.
- Q Okay. So you are talking about a concentration that occurs before the calls get to the LEC switch?
- A Yes.

- Q And when you are talking about wanting unbundled loop concentration, you are talking about that loop concentration between the end users and the LEC's central office?
- A Well, in a sense. Let me take you back. The modern provisioning of loop plant, you have distribution plant and feeder plant. Every modern feeder plant is no longer just, as I understand it talking to engineers,

dedicated paths in the feeder although not a dedicated physical path. I don't know how to explain -- you know, it's like deriving 12 channels out of one or two copper wire pair.

Q I actually understand.

A Panel is dedicated even though it is not a full dedicated copper wire pair. What is going on now with feeder, as I understand it, is that you actually get time division multiplexing which means that there is not even a dedicated channel feeder plant. What we are saying is that in essence for an unbundled loop to be efficient you want to -- where it comes, using an unbundled loop of BellSouth, comes into the central office of BellSouth just the way it always has, and then goes essentially into a second feeder configuration to go all the way back to the switch of the entrant. But it would now have distribution, feeder, feeder as opposed to distribution, feeder, and then trying to put it into an old fashioned multiplexing arrangement.

Q I think I understand the loop concentrator outside the central office. Are you also saying that the loop concentration function in the central office has to be unbundled as well?

A Yes.

Q So you've actually got loop concentrations outside the switch and inside the switch that you want to

have unbundled?

A Not inside the switch, Mr. Lackey, inside the central office. The very same plant that provides the concentration when you go from distribution to feeder, is a plant that needs to be reinstalled inside the central office for an entrant to concentrate those loops that are unbundled to it for it -- to its central office. That is why I said what you -- you wanted the equivalent of the distribution, feeder, feeder; the second feeder beginning inside the central office of the incumbent and ending at the switch of the entrant.

Q All right. And that would be what a LEC might call an interoffice trunking facility?

A I don't know whether you would call it the same because once you start talking interoffice trunking, you are getting into Bell Corp. specs for various different kinds, and I do not think that is quite the same, that the kind of transport, the kind of trunk that would take concentrated feeder back to an entrant. What you want is the ability to literally have that loop go back up on the same kind of feeder that is a modern kind of feeder for a LEC.

Q All right. And you want the LEC to build that feeder between the LEC's local office and the ALEC's facility?

A It isn't a question of having to build it. 1 have that plant there. It's a matter of using some of the 2 interoffice plant that exists for that purpose. 3 Okay. All right. One last area and I'll be done. On Page 6 of your rebuttal, you're addressing 5 Mr. Scheye's ONA framework proposal. Are you there? 6 Yes. 7 Α Q At Line 18 on Page 6 you say: 8 "No, the ONA framework 9 requires the requesting party 10 to share too much of its marketing 11 construction and business plans 12 with BellSouth as part of an attempt 13 to gain unbundled elements." 14 The question I have for you is do you have any 15 knowledge or any information that would lead you to 16 conclude that BellSouth in Florida has misused any 17 information provided to it by an entrant as a result of an 18 19 ONA request? I have never looked at that question, so my 20 answer has to be I have no information one way or another. 21 MR. LACKEY: All right. That's all I have. 22 Thank you. 23 MR. MELSON: Anybody else on the telephone have 24

any questions?

25

1	MR. HORTON: Rick, this is Doc. I have no
2	questions.
3	MR. MELSON: Mark has stepped out.
4	MR. EDMONDS: Do you have any questions?
5	MR. MELSON: No, I've got no redirect.
6	MR. EDMONDS: I guess that concludes the
7	deposition then.
8	MR. MELSON: All right. Thank you all very
9	much.
10	(WHEREUPON, THE DEPOSITION WAS CONCLUDED)
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CERTIFICATE OF DEPONENT

This is to certify that I, DOCTOR NINA W. CORNELL, have read the foregoing transcription of my testimony, Page 1 through 51, given on December 18, 1995 in Docket Number 950984, and find the same to be true and correct, with the exceptions, and/or corrections, if any, as shown on the errata sheet attached hereto.

DOCTOR NINA W. CORNELL

Sworn to and subscribed before me this day of ______, 19_____

NOTARY PUBLIC
State of
My Commission Expires:

<del>05</del>3

1	STATE OF FLORIDA ) : CERTIFICATE OF REPORTER
2	COUNTY OF LEON )
3	I, NANCY S. METZKE, RPR, CCR, Certified Shorthand
4	Reporter and Registered Professional Reporter,  DO HEREBY CERTIFY that I was authorized to and
5	did stenographically report the foregoing deposition of Doctor Nina W. Cornell.
6	I FURTHER CERTIFY that this transcript, consisting of 51 pages, constitutes a true record of the
7	testimony given by the witness.  I FURTHER CERTIFY that I am not a relative,
8	employee, attorney or counsel connected with the action, nor am I financially interested in the action.
9	DATED this 22nd day of December, 1995.
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# ERRATA SHEET, DEPOSITION OF NINA W. CORNELL DOCKET NO. 950984-TP

- p. 6, 1. 20 *as* to *as if*
- p. 7, 1. 2 "posed" to "opposed"
- p. 7, 1. 7 "facilities base" to "facilities-based"
- p. 8, 1. 15 "of" to "by"
- p. 8, 1. 23 "in some" to "if the sum"
- p. 11, 1. 13 "any competitive" to "anticompetitive"
- p. 14, 1. 4 "effect, total" to "effect on total"
- p. 15, 1. 2 "abso.... intermediate" to "absolutely an intermediate"
- p. 16, 1. 18 "stop" to "show"
- p. 16, 1. 23 "correct" to "correctly"
- p. 24, 1. 17 "suggest much" to "suggest 2X is much"
- p. 25, 1. 5 "a" to "on"
- p. 31, 1. 20 "from which" to "onto which"
- p. 35, l. 4 "switch" to "switched"
- p. 35, 1. 5 "accessed" to "access"
- p. 35, 1. 12 "through" to "to"
- p. 37, 1. 21 "entrant" to "entrance"
- p. 38, 1. 2 "-- either exchange" to "interexchange"
- p. 42, 1. 12 "Bell's" to "Bell"
- p. 44, 1. 5 "call" to "build"
- p. 45, 1. 3 "D-averaged" to "deaveraged"
- p. 46, 1. 3 "D-averaged" to "deaveraged"
- p. 46, 1. 11 "transport carry" to "transport to carry"
- p. 47, 1. 24 "Every" to "Even"
- p. 48, 1. 6 "Panel" to "Channel"

ERRATA SHEET, DEPOSITION OF NINA W. CORNELL DOCKET NO. 950984-TP PAGE 2

p. 48, 1. 10 "channel feeder" to "channel in feeder"

p. 49, 1. 7 "it --- to" to "it to transport them to"

<b>EXHIBIT</b>	NO.	
FYHTRII	NU.	

**DOCKET NO.:** 950984-TP

WITNESS: MIKE GUEDEL

PARTY: AT&T

**DESCRIPTION:** 

12/20/95 DEPOSITION TRANSCRIPT

PROFFERING PARTY: STAFF

I.D. # MG-1

FLORIDA PUBLIC SERVICE COMMISSION			
DOCKET 950984-TP EXHIBIT NO.	9		
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### BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: RESOLUTION OF PETITION(S)

TO ESTABLISH NONDISCRIMINATORY : DOCKET NO. RATES, TERMS, AND CONDITIONS FOR : 950984-TP

RESALE INVOLVING LOCAL EXCHANGE

COMPANIES AND ALTERNATIVE LOCAL : FILED EXCHANGE COMPANIES PURSUANT TO : 12/11/95

SECTION 364.161, FLORIDA STATUTES :

Deposition of MIKE GUEDEL, taken pursuant to the stipulations contained herein; the reading and signing of the deposition reserved, before Brenda C. Davis, B-1572, Certified Court Reporter, Notary Public in and for Newton County, Georgia, commencing at 2:07 P.M., on Wednesday, December 20, 1995, at 1200 Peachtree Street, Room 3062, Atlanta, Georgia.

******

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(No Exhibits Marked by the Parties.)

(Court reporter disclosure attached to the original transcript only.)

## VERBATIM COURT REPORTERS, INC.

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1	PROCEEDINGS
2	(2:07 P.M.)
3	(Witness sworn by the court reporter.)
4	MR. LACKEY: As for appearances, this
5	is R. Douglas Lackey, appearing on behalf
6	of BellSouth Telecommunications, Inc., in
7	this matter.
8	MS. CANZANO: I'm Donna L. Canzano,
9	appearing on behalf of the commission
10	staff. And my address is 2540 Shumard Oak
11	Boulevard, Tallahassee, Florida, 32399.
12	MS. DUNSON: This is Robin Dunson,
13	appearing on behalf of AT&T.
14	MR. LACKEY: As a matter of course in
15	these depositions in Florida, we generally
16	talk about the usual stipulations. I can
17	never remember them. So, can we simply
18	assume Ms. Dunson that Mr. Guedel will not
19	waive signature.
20	MS. DUNSON: I'm sorry.
21	MR. LACKEY: That he will not waive
22	signature?
23	MS. DUNSON: Yes.
24	MR. LACKEY: And that all objections

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except as to the form of the question will

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be reserved until the time of first use of the deposition?

MS. DUNSON: Yes.

MR. LACKEY: If those are acceptable, Mr. Guedel, what we'll do is we've got dockets here, Mr. Guedel. And I think they're 950984 and docket number 950985. And what I would propose to do is conduct the deposition in 950984, the unbundling docket, first and when we all conclude that one, then we move to the 950985, the interconnection docket. Is that agreeable?

THE DEPONENT: Okay.

MR. LACKEY: Robin?

MS. DUNSON: Yes, that's fine.

MR. LACKEY: Mr. Guedel, my name is

Doug Lackey. I'm going to be asking you

questions for the next few minutes about

your testimony filed in docket 950984

before the Florida Public Service

Commission. And what I'll refer to as the

unbundling and resale docket.

If at any time, I ask you any question which is not clear to you or which you

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would like to have me make a further 1 explanation, if you will stop me and 2 please ask me to do so, I will attempt to 3 accommodate you. Is that agreeable? Yes, it is. 5 THE DEPONENT: MR. LACKEY: And if at any time during 6 the deposition you need to take a break or stop or otherwise just go off the record 8 for a moment, will you tell me that as 9 10 well? I will. THE DEPONENT: 11 MR. LACKEY: Thank you. 12 13 Whereupon, MIKE GUEDEL 14 was called as a witness herein and, having been 15 first duly sworn, was examined and deposed as 16 17 follows: CROSS EXAMINATION 18 BY MR. LACKEY: 19 Please state your full name and address 20 for the record. 21 My name is Mike Guedel. My address is 22 1200 Peachtree Street, N.E., Atlanta, Georgia, 23 30309. 24 And Mr. Guedel, by whom are you employed? 25 Q.

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1	A. I'm employed by AT&T as a manager in the
2	Network Services Division.
3	Q. In the 94 docket, Mr. Guedel, can you tell
4	me how many pieces of testimony you filed on behalf
5	of AT&T?
6	A. I filed one piece of testimony.
7	Q. And was that the piece that was filed on -
8	- I don't have the date here. Let me get the date,
9	Mr. Guedel. Do you have the testimony there in
10	front of you?
11	A. I do have the testimony. I do not have
12	the date.
13	Q. I've got it right here. The testimony I
14	have shows that it was filed by Michael W. Tye on
15	November 27, 1995 on your behalf. Does that seem
16	correct or do you know, Mr. Guedel?
17	A. I can't remember the date. It was the
18	Monday after Thanksgiving weekend.
19	Q. Let's do it this way. Do you You say
20	you have the testimony in front of you. I take it
21	you don't have the first page of that testimony.
22	A. I have the first page. I do not have the
23	cover sheet.
24	Q. Do not have the cover sheet. Let's see.
25	Turn to page 15 of the testimony.

(Complying with request of counsel.) 1 Α. 2 Does the question on line 15 say, "Does 3 this conclude your testimony"? Yes, it does. 4 Α. Turn to page 9 of that testimony 5 Q. (Complying with request of counsel.) 6 A. 7 Does the question on line 11 say, "What is the scope of this document with respect to 8 unbundling? 9 Yes, it does. 10 Α. Turn to page 4 of the testimony. Does the 11 question on line 1 say what is meant by the term 12 13 interconnection? Yes, it does. 14 Α. Okay. If I ask you any questions about 15 any specific pages or lines, I will try to identify 16 17 the words that I'm directing to so that we can insure that we're operating off the same piece of 18 19 testimony. It appears that we are, but I wouldn't 20 want any confusion. With regard to the testimony that we are 21 talking about, can you give me a brief description 22 of your definition of interconnection and 23 unbundling and differentiate the two? 24

Basically, interconnection describes

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Yes.

Α.

the situation where two companies connect facilities with one another for the purposes generally of originating or terminating telephone calls.

Unbundling refers to the disaggregation or the separation of existing services provided by the local exchange companies into their component elements and making those component elements available for sale to any interested parties.

- Q. Mr. Guedel, we're having a little bit of trouble of hearing you. I don't know whether it's the phone system or what. If you could get closer to the phone, I would appreciate it.
  - A. Okay. I will try to speak up.
- Q. I think I understood the definitions. Let me ask you a couple of questions about it to insure that I do.

Would cellular ...

(Whereupon, a discussion ensued off the record.)

## BY MR. LACKEY: (Resuming)

Q. And with regard to interconnection, would the interconnection of a cellular network with a local exchange company network be an example of what you would define as interconnection?

A. Yes, that would be a type of interconnection.

- Q. In order to have the interconnection of two different networks -- and I believe that's the term you used -- do both networks have to have switching capabilities by themselves?
- A. I think that's the form of interconnection that we're talking about here; yes.
- Q. Can you think of any situation where a party would have a network which did no switching which that party would want to interconnect, as you've used the word interconnect, with an LEC network?
- A. Mr. Lackey, the only possibility I could think of would be in providing of advanced intelligent network features where you may want to connect a platform -- switching platform to the LEC network and you may not have a full blown switch. But as a general rule, you would need a switch to connect to the LEC network.
- Q. So, for instance, if anyone, someone -let's say AT&T -- built a line from, let's say your
  house, Mr. Guedel, and carried the line to a
  BellSouth switch, if you live in our service area,
  and asked to have that line attached to the

BellSouth switch, you would not call that interconnection in the way you used the word?

- A. That would be a form of interconnection also. It would not be a form of interconnection necessarily for the purposes of terminating a telephone call.
- Q. It would be -- To differentiate it then you say that that would obviously be, I guess, a form of interconnection 'cause you connect two things together.
  - A. Yes.

- Q. But it isn't what you mean when you speak of interconnection because the way you use it, you're using it as two networks into which can be used to terminate calls?
- A. I think -- let me back up and be clear on this. Anytime you interconnect two company's facilities together, you have an interconnection. When I was speaking initially in response to your question, I was referring to the type of interconnection that two switches or two networks interconnect with for the purposes of terminating a telephone call and which is the basis for the mutual compensation agreements and things like that.

## VERBATIM COURT REPORTERS, INC.

P. O. Box 941760 Atlanta, Georgia 31141 (404) 986-9812 But technically anytime you connect two wires together, you have an interconnection.

Q. Let's refine this down a little bit because I don't want to cause any confusion. Let me pose it a different way.

Using the term interconnection as you have in your testimony, does that use presuppose at least two free standing and independent networks that are each capable of originating and terminating calls wholly within their network?

- A. Wholly in -- not necessarily.
- Q. What part of my statement would you disagree with?
- A. I could imagine a situation similar to the one that you described where I would have a loop connected to an alternative carrier switch, and that alternative carrier would terminate the call over a BellSouth loop that it has purchased in an unbundled arrangement.
- Q. So, what you just described was perhaps -- and, again, let me just use you as an example. Say AT&T was an ALEC in Georgia, since that's where we are, and AT&T ran a twisted pair from your house to an ALEC switch and the ALEC had then purchased an unbundled local -- no, they wouldn't of -- they --

Wouldn't the ALEC simply have purchased a connection between the ALEC switch and the BellSouth switch in that case to terminate calls?

A. I think that's a possibility.

- Q. Well, they wouldn't have simply purchased an unbundled loop to terminate your calls because that means you would only be able to call one person; wouldn't it?
- A. They may have purchased an unbundled loop from BellSouth to provide local service to a particular customer. They may have a co-located arrangement in a BellSouth office where they connect loops, maybe not one loop, maybe a variety of loops out of that office, back to their switch, give dial tone to those customers and provide those customers local service.

They would also have the ability, under that arrangement, to terminate telephone calls to those customers that went through the ALEC switch.

Q. In the situation you just described -- and I put the names on it, I believe, saying that AT&T was an ALEC and that you connected your line to the switch of a second ALEC. Where in your view in that example is the interconnection with the BellSouth network? Who has that interconnection?

A. Again, the interconnection -- and I want to be clear about the interconnection. The interconnection is at some point in the situation I described at a co-located facility in a BellSouth central office.

* *

Now, whether you want to argue that connects with a LEC facility or whether that connects with the LEC network I think is arguable.

- Q. And I'm not trying to get to that. All I'm trying to understand is how you're using the word. And as I understand it now you could actually say if AT&T were an ALEC and ran a line from your house to a second ALEC's switch and that ALEC then connected to a BellSouth switch, that there would be two interconnections, at least there. There were would be yours, AT&T's with the second ALEC and the second ALEC's interconnection with the BellSouth facility in that description?
- A. I think I lost you, Mr. Lackey. Could you repeat that.
- Q. Yeah. Why don't I lay out the physical facilities we're talking about because maybe that's what's causing the confusing.

I had assumed a physical facility that ran from your house to an ALEC switch. I had assumed a

physical switch that the ALEC owned. And I had assumed a physical facility that ran between the ALEC switch and the BellSouth switch. And then, I had assumed that you, at your house, could place local calls let's say and the route the call would follow would be from your house, down the first physical facility, the loop, to the ALEC switch. That it would then be switched by the ALEC to the - through the next facility to the BellSouth switch and then the call would be terminated somewhere on BellSouth's network. That's the physical arrangement I had laid out.

And what I had asked you was in that case would there be two interconnections, one between AT&T and the second ALEC at the ALEC switch and a second interconnection between the second ALEC, not named, and BellSouth the way you used the terms interconnection or term interconnection?

Did you understand the question, Mr. Guedel?

A. I believe I understand the question, and I believe it falls under a general definition that anytime the facilities of two companies are interconnected, you can call that interconnection or I will call that interconnection, so yes.

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- Q. And not to repeat ourselves, but did I understand that if AT&T had simply run that first facility from your house directly to the BellSouth switch, that we would have also called that a form of interconnection, but not the form of interconnection you are addressing in your testimony?
- A. One moment, Mr. Lackey. I need to make sure I look at both of these testimonies and see where I addressed those issues.
- Q. I'm sorry, Mr. Guedel. I thought you only had one set of testimony in the 84 docket?
  - A. I do. I do.
- Q. Okay.

A. But I can't recall right off the top of my head which set of interconnection I addressed in each docket.

And I guess without reading through the entire thing, I wouldn't be able to tell you. But both -- I mean, there are a variety of forms of interconnection. I believe in the unbundling docket, we simply talked about unbundling the local exchange company facilities. And I believe that docket was limited to loops and switching. And I will state that those -- I mean, the only reason

that you would unbundle them is so that someone could purchase them and interconnect them with some other facilities that that company may own.

- Q. Let me approach this a slightly different way then and let's talk directly about unbundling.

  All right?
  - A. Okay.

- Q. With regard to unbundling, you want to be able to purchase a local loop, which I believe you define as a facility that runs from the customer's premise to the LEC serving wire center; correct?
- A. Correct. Want to purchase that local loop or a subset of that local loop.
- Q. Yeah, I didn't want to get into the subsets. I just wanted to -- you wanted to purchase a local loop that gets you to the CO; right?
- A. That's -- that's certainly one application; yes.
- Q. And presumably, you might want to purchase local switching at the CO; is that correct?
  - A. You might want to do that.
- Q. In that situation where you have purchased an unbundled local loop and you've purchased unbundled switching isn't it possible to originate

a call from the parts of the network, the unbundled network that you have purchased and once you switch it, through your unbundled switching purchase, to direct it onto the local exchange company's network?

- A. That would be a possibility.
- Q. In other words if you purchased a local loop and you purchased a port on a local switch and purchased the switching function, and originated a call at your house over that unbundled loop to that switch, the call would then terminate behind the switch on the LEC's network somewhere; correct?
  - A. Yes, that could happen.
- Q. Would you characterize that as the purchase of unbundled network elements or would you characterize that as unbundling?
- A. I would guess I would consider both of those things to be correct. They are theoretically unbundled for the purposes of pricing and selling the services, and they are purchased unbundled elements.
- Q. I guess you would then say, since you said it was both of them, that you used the unbundled elements that you had purchased to then interconnect with the LEC's network?

A. I'm trying to imagine a variety of scenarios. I can imagine a scenario where you would do something like that, complete a local call to another LEC switch and to a LEC customer. And I guess in that instance, you would pay an interconnection arrangement to the LEC, whatever that happens to be.

Now, in that case, you are not physically interconnecting the LEC network with anything other than the LEC network, but you are interconnecting two company's services.

- Q. Well, let's pursue that then. If you purchased on an unbundled basis the local loop we're talking about...
  - A. Uh-huh (affirmative).

- Q. -- and the port at the local switch, would you then have the equivalent of -- assuming the loop terminated at a home -- basic residential service?
- A. No, not completely because I wouldn't have the terminating end of that local residential call. Residential service generally gives a customer the ability to make and receive calls, and I wouldn't be able to do that without interconnecting that to some other LEC facility or some other ALEC

facility.

- Q. Okay. Let me modify my question then. If you purchased on an unbundled basis from, let's just say, BellSouth that local loop, and you purchased from the local company, BellSouth, the port at the local switch -- and we'll assume, or you can correct me, that that includes the switching function -- and then you paid an interconnection fee or you entered into an interconnection arrangement with the LEC, would you then have the equivalent, assuming that the loop terminated at your home or somebody's home, the equivalent of basic residential service?
- A. It would -- it would look a lot like that. How an ALEC or the services that an ALEC may choose to provide over the facilities that it purchases, I think are up in question. I don't know exactly what they would look like. But I will concede he would be able to complete what BellSouth would call a local call under that particular arrangement.
- Q. And would he be able to receive local calls as well?
  - A. I believe he would.
  - Q. I'm sorry. I didn't hear you, Mr. Guedel.
- 25 A. I believe he would.

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- Q. So, for a residential customer, if an ALEC were allowed to purchase an unbundled local loop, the local switch function at the serving CO and to make interconnection arrangements with the LEC or access to the rest of the network, the ALEC would then have the ability to provide the basic functionality of a residential basic telephone service?
- A. I think he would be -- yes, he would be able to provide telephone service. I don't want to get hung up on the terms basic, local, residential and those kinds of things because they may not apply to the ALEC service categories. But he would be able to complete telephone calls in that manner.
- Q. Well, let me take a very simple example for you and see if this is correct, or if I correctly understand what we've just been talking about.

If I could get certified as an ALEC and if BellSouth were required to unbundle it's local loops and unbundle it's local switch and the two could be purchased together, then the ALEC simply by purchasing those unbundled items could go into business and provide residential telephone service to as many customers as they could get to sign up;

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correct?

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- A. Well, I don't -- I don't know the know the answer to that. I think if a LEC purchased that -- I mean, if an ALEC purchased that functionality, a loop and switching components, then they could provide service to their customers. How many customers they could serve, I think is all in the marketing plans of these companies. I have no idea.
- Q. Well, there would be no reason, assuming that they had a decent marketing plan, that they couldn't add as many subscribers as the existing local exchange company had local loops and switches; correct?
- A. Well, assuming, you know, things like they -- like it was financially viable to do those kinds of things. I don't know what kind of pricing we're talking about here. What kind of cost structure the ALEC would have, but I will concede that they can provide service under that arrangement. I just can't tell you how much or whether it would be financially viable or those kinds of things.
- Q. And that's because I haven't told you what the local loop would cost you or what the local switching would cost you and what the LEC charges

P. O. Box 941760 Atlanta, Georgia 31141 (404) 986-9812 that same customer for basic -- for local telephone
service? That is the element you're missing;
aren't they?

- A. Those would be very important components of my decision.
- Q. Now, when you propose that the LEC unbundle its network into -- I believe you refer to them as basic network functions, BNFs, you would not suggest that in any event those BNFs be priced below cost; would you?
  - A. No.

- Q. And if it turned out -- let's talk about the local loop for a minute. If it turned out that the local loop between your house and the serving wire center of your local telephone company cost more than the local telephone company charged you for basic service at your house, you wouldn't expect that the local exchange company would sell you that unbundled loop below its cost even under those circumstances; would you?
- A. No, I'm not asking the local exchange company to sell the facilities -- any of the BNFs below the cost that they incur in providing those services.
  - Q. Now, as I understand it, before you worked

1 for AT&T, you had some considerable experience in 2 the -- what we used to call the Bell operating 3 companies, the wholly owned subsidiaries of AT&T; is that correct? 5 That's correct. 6 And do you remember what -- I know what --7 you do remember -- that you worked for, what, South Central Bell? 8 9 Α. That's correct. Did you ever work for Southern Bell? 10 Ο. 11 Α. That's a good question. I don't know what 12 happened at divestiture. I -- if Southern Bell --13 I don't think they merged. I think I was with 14 South Central Bell unless they changed their name at divestiture. 15 16 Well, do you happen to know, prior to 17 divestiture, what AT&T's position was with regard 18 to the rate charged for one FR service in Florida 19 and the cost of that one FR service? 20 Α. No. 21 Doug, did you hear that MS. DUNSON: 22 answer? 23 No, I didn't. MR. LACKEY: 24 BY THE DEPONENT: (Resuming)

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The answer is, no, I do not remember.

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- 25 Q. Now, if I understand correctly, you were in the costing and economics group at South Central Bell; weren't you? Yes, sir. A. Well, just for a point of reference then, do you happen to remember what AT&T's position was on the cost of the local loop, the one FR loop, versus it's price in any of the states for which you were responsible? Not specifically, Doug. Α. Do you recall generally that AT&T maintained that local residential service was priced below its cost? I really don't know the answer to that I know that -- that BellSouth has question.
  - testified to that effect in a couple of jurisdictions that I've participated in in the last few years. I really don't remember back when I was doing the cost studies what the position was.
  - But back when you were doing the cost 0. studies, South Central Bell and Southern Bell were owned by AT&T; correct?
    - We were all one company.
- And so, presumably, the positions that the 24 Q. 25 -- the wholly owned operating companies were taking

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were the positions of AT&T; weren't they? 1 AT&T liked to think so. I think that was 2 3 generally true. But in answer to my earlier question, you 4 don't have any knowledge about what the position 5 was prior to divestiture regarding the relationship 6 between the cost and price of residential services 7 anywhere? 8 Doug, I really don't know the specifics. 9 Α. 10 I know the theory was that there was not necessarily a direct relationship between the cost 11 and the price, and that that wasn't terribly 12 13 important. But I don't know the specifics. Do you know whether the residential rates 14 were set on what's -- residential rates were set on 15 what -- using what's known as residual rate making? 16 17 I am familiar with residual rate making; 18 yes. 19 And to explore that, is residual rate Q. 20 making generally speaking the theory that in a rate case under traditional rate of return regulation, 21 when revenue requirement is needed, you put all of 22

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the requirement on all of the services you can and

That was certainly a philosophy.

whatever is left goes on the residential service?

was, and still is, to my knowledge, a hope to keep residential service low.

- And so therefore it was unimportant whether residential service was below, at or above it's cost under that rate setting method; is that your position?
- I think that's a true statement. I don't Α. know that that's my position.
- I shouldn't have said position. Is that Ο. your understanding?
  - That's my understanding. Α.

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- All right. Now, let's talk about -- you were talking about the local loop and you started to talk about sub loop parts I think, to coin a Is it your opinion that the local loop phrase. which runs between the subscriber's residence and the local exchange company's serving wire center can be further broken down into component parts?
- I -- I think in some cases that it can be, particularly in cases where subscriber line carrier is used.
- Would you very briefly describe, beginning at the subscriber's house, how that would happen so that I can understand what you mean by breaking down this local loop?

1	A. Okay. It's my understanding that in a
2	subscriber line carrier environment, the drop wire
3	from the house would go to some kind of a
4	connection at a pole or an underground facility.
5	And then, that would run back to a point where it
6	hits a subscriber line carrier, which is a
7	basically a T1.5 multiplex service, where all the
8	loops that run into particular box are then
9	multiplexed into time slots and sent back to the
10	central office over the subscriber line carrier.
11	Q. And between the subscriber's house and the
12	is it called an SLC.
13	A. Subscriber line carrier.
14	Q. Yeah. I'll use subscriber line carrier
15	A. Subscriber
16	Q for clarity.
17	A. Okay.
18	Q. Between the subscriber's house and the
19	the facility you described, the SLC, is that
20	basically and generally just a twisted pair?
21	A. Yes: In today's environment; yes.
22	Q. And at the SLC, you say that the lines
23	that come in are then multiplexed to I think you
24	said to a T1.5 facility?
25	A. Yes.

Q. Okay. Now, does that mean -- just to understand this -- that then perhaps 96 twisted copper pair will be brought into a SLC from the various subscriber's premises and at that point they might be multiplexed so that they can be carried over a facility that would normally only carry, say, 24 lines?

- A. I think it could be done a couple of different ways. You could do it with or without concentration, if that -- I think I understand your question -- so that you can have 96 lines going to the facility and then not have 96 time slots running all the way back to the central office, so you'd actually have a one to one relationship there. Or you could do a concentration function, and I'm not really sure what BellSouth does.
- Q. Okay. Well, that -- you clarified my misunderstanding then. What you meant or what you indicated by multiplexing is that if 96 lines came into the SLC through some technique you would space the -- or time the calls so that you had a one for one relationship in the facility that ran between the SLC And the central office. That's one way of doing it; is that right?
  - A. Yes. And let me clarify it. It's not a

question of spacing calls. It's a question of, you 1 2 know, translating a loop into a time slot so that you have one time slot dedicated to each loop under 3 that scenario. What kind of facility are we talking Q. about, a copper or a fiber, or what? 6 Generally copper to the home. 7 Α. The 8 facility that actually carries the T1.5 circuit could be four wire copper, it could be fiber. 9 Okay. Could you carry the equivalent of 10 96 twisted pair between the SLC and the CO on four 11 12 -- on a four pair cable? Is that what you said or did I misunderstand you? 13 Well, generally a T1 circuit requires a 14 Α. four wire channel. So, you would need, in that 15 case, four, four wire channels -- four, four wire 16 17 facilities to carry 96 channels. Each facility having the capacity to 18 handle 24? 19 20 A. Right. A T1 -- T1.5 facility will time slot 24 channels. 21 And evidently, in that situation, is that 22 Q. what you call the one to one ratio as opposed to 23

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concentration?

Yes.

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1	Q. So, there must be another way that the 96
2	lines could come into that subscriber to the SLC
3	and then the calls would be somehow concentrated
4	into a different arrangement. How would that work?
5	A. If a concentration arrangement were
6	applied, you could, in theory, have 96 loops coming
7	into a hub and let's say something less than 96
8	paths going back to the central office.
9	Q. Is the Is there physical equipment
10	required to do this concentrating?
11	A. Yes. Yes.
12	Q. And is it different equipment than would
13	be used to take the 96 lines down to the four, four
14	cable arrangement we were talking about earlier?
15	A. It's certainly a different functionality.
16	I I don't know if you could use the same box to
17	do it, but it's certainly a different
18	functionality.
19	Q. In the one case, is it a multiplexer and
20	in the other case, is it a concentrator?
21	A. You would If you concentrate, you still
22	multiplex. But you would do the functions
23	differently; yes.
24	Q. But you don't know whether the

multiplexing equipment that might be found in an

SLC would also be capable of doing what you're 1 calling the concentrating function?

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- I don't know if that has been Right. Α. combined into one box or if that's two separate boxes.
- Okay. So, when you in your testimony on Q. page 5, line 18 and 19 refer to loop concentration, first let me ask you, are you referring to the loop concentration that you and I have just been talking Is that what you're referring to is what about? we've just been talking about?
- Α. Yes, that is what we've been talking about.
- And did you mean when you said loop -- Did 14 you mean to include when you said loop 15 concentration, did you also intend to mean what we 16 referred to and described as that multiplexing 17 function? 18
  - Yes, I believe I did. I'm looking at this testimony to find that, but, yes, I -- multiplexing should have been there.
  - Now, let me ask you this: What good would it do you to buy as a stand alone element multiplexing or even loop concentration as we're talking about it here? What would you do with it

as a stand alone function?

- A. I don't think you would buy it as a stand alone function. I think you have to unbundle it so that you can buy the other functions independently.
- Q. Well, if you were going to buy -- I guess
  -- let's see if we can identify the other functions
  before we ask that question. I guess one piece
  would be the twisted pair between the subscriber's
  house and the SLC. Would that be one component?
  - A. Right.
- Q. And do you want that component unbundled and sold separately?
  - A. Yes, I think that's a potential use.
- Q. And then, the next one -- component in line would either be the multiplexer or the loop concentration that we've been talking about at the SLC; is that correct?
  - A. Yes.
- Q. And then, a third function would be whatever the facility is that carries the calls between the multiplexer or the loop concentrator to the serving wire center; is that correct?
  - A. Correct.
- Q. Can you describe for me a situation where you would want to buy the local loop between the

subscriber's place of residence and the SLC where you would not also choose to buy a multiplexer or loop concentrator, as the case may be, and the rest of the portion of the loop between the SLC and the serving wire center?

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- A. I could -- Yes, I could imagine a situation where an ALEC may want -- may have a fiberoptic ring around the city, and may have the opportunity to interconnect with BellSouth at a manhole location or whatever where it could connect a loop that runs from the subscriber's house to the manhole connection to its fiber loop with some kind of electronics that it may have co-located at that facility. It's a possibility.
- Q. All right. So, what you're describing is a situation where you actually wouldn't want to purchase them individually if you had to run the call from the subscriber line -- from the subscriber premises serving wire center. What you're trying to do is break it down so that the ALEC could somehow intersect with the loop between the subscriber's premises and the serving wire center; that there would be the availability of an interconnection at that point?
  - A. I think that's a possibility; yes.

P. O. Box 941760 Atlanta, Georgia 31141 (1)34 (404) 986-9812 Q. Can you think of any other possibilities which would require the further unbundling of the local loop into those three components that propose to offering them as a single component?

A. There's other examples. I could imagine an example where an ALEC may have some kind of a wireless loop. And he may want to interconnect a wireless loop with the rest of the BellSouth facility going back to a center office.

There's a variety of different things you could do.

- Q. Well, why would -- why would you interconnect a wireless loop at any point between the subscriber's premises and the serving wire center?
- A. It depends on the -- it depends on the range of the loop, the frequency range. If you could only provide the wireless capacity within a limited area, you may want to interconnect with a BellSouth facility and run it back to a CO and then interconnect with your equipment in the CO.
- Q. In other words, what you might want to do is put some kind of a facility at the SLC and feed your wireless call into the network at that point, into a concentrator; is that what you're saying?

A. I think that's a possibility.

- Q. Do you believe that the network ought to be unbundled into this level of component parts before there's a demand -- a known demand for these facilities?
- A. I would say yes. I mean, I don't know that you're going to find out the demand until you put the services out there. And if there is not demand, then you've -- you've lost nothing.
- Q. Well, that's my next question. Do you believe that doing the appropriate studies for the purpose of breaking the -- the loop as you've -- as we've described it, into it's component parts is cost free?
- A. I'm not sure that it's cost free. I do believe that the particular elements that I've defined are cost elements that are probably individually studied in a bottoms up analysis anyway. So, when you wanted to come up with the total cost of a loop, for example, or for loops as a category, you would probably individually look at those kinds of components and then add those together.

So, I think to the extent loop studies exist, and I think they do exist at BellSouth, it

would be a matter of breaking those things apart rather than starting over again.

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- Q. But just for the sake of understanding the principle of your position, if it turned out that such studies didn't exist or weren't broken down that way, would you agree with me that there would be a cost associated with doing them and breaking them down that way?
  - A. For the sake of the hypothetical; yes.
- Q. But you still believe that even in that circumstance the local exchange company should be required to go to that expense even with no known or shown demand for the unbundled feature?
- A. Yes. I believe that as a method of trying to jump start competition in the local arena, that these kinds of things should be made available so that potential entrants would have a variety of different ways to get started. And the more ways they have, the more opportunities they have to get started, the greater the opportunity there is for competition to get started.
- Q. And that remains your answer even with the understanding that there may be absolutely no demand for these elements you're talking about?
  - A. There may be. I mean, AT&T is not asking

for anything today. I do believe MFS has asked for very similar unbundling, which would incline me to think they may have some demand for.

Q. Has AT&T been certified as an ALEC anywhere in the country yet?

- A. I don't know the answer to that question. We have not been certified in Florida. We are providing service in Rochester as I understand it, so we've probably been certified there.
- Q. But what I'm trying to ask you and what I'm ask -- will ask you next is is do you know where -- anywhere where AT&T has operated as an ALEC where it's actually asked for the local loop -- for the components of the local loop broken down as you've described between -- you know...
- A. No, I don't. I know that we've asked for this in other places. I don't know that we've actually utilized it in other places.
- Q. Okay. So, on page 5, line 15 through 17 where you state, "AT&T has identified eleven components or BNFs associated with local exchange services which may be effectively and usefully unbundled", you cannot provide us any examples of where AT&T has actually used these unbundled elements, particularly the ones we're talking about

1	in a local loop?
2	A. That's correct. I do not know where we
3	have used an unbundled local loop.
4	Q. Let's talk about the network Well,
5	before we do that, let's turn to page 6 of your
6	testimony.
7	A. (Complying with request of counsel.)
8	Q. And let me see which line I need you to
9	look at. Actually it's the answer on line 12 that
10	begins, "Several criteria".
11	A. Yes.
12	Q. Do you see that? I'm looking really at
13	line 15, where you say, "Second, the unbundled
14	element must be separately measurable and
15	billable."
16	A. Yes.
17	Q. Are you suggesting that the basic BNFs,
18	that's basic network functions, will have to be
19	billed on a usage basis?
20	A. I'm not sure I understand that. If you're
21	talking If you I mean, they're going to be as
22	you use them. I am not implying that a loop, for
23	example, should be billed on a minute of use basis.
24	It will be billed on a per loop basis.

Q. Well, it was measurable -- your use of the

1	word measurable on line 16 that I was trying to
2	address.
3	A. Yes. It's measurable. I mean, it's
4	measurable in the sense it's quantifiable. I buy
5	one loop or I buy six loops, that they're
6	independently identifiable and measurable entities.
7	Q. Okay. Let's look at page 7 of your
8	testimony.
9	A. (Complying with request of counsel.)
10	Q. And I'm really interested in the sentence
11	that begins at line 8, "Under the protection." Do
12	you see that?
13	A. Yes.
14	Q. My first question to you is is do you
15	think that AT&T AT&T has a network now; doesn't
16	it?
.17	A. Yes, we have a network.
18	Q. Do you believe that AT&T owns that
19	network?
20	A. Yes. Well, yes, we own that network. Our
21	shareholders own that network.
22	Q. And in Florida, you will agree, that
23	BellSouth has a network a telephone network,
24	wouldn't you?
25	A. Yes.

	Q. And do you agree that we own that hetwork
2	just like AT&T owns its network?
3	A. I'm not disputing that.
4	Q. Okay. So, the answer is, "Yes, I agree
5	with that. You own the network." BellSouth owns
6	the network.
7	A. BellSouth owns the network.
8	Q. And it's presumably based on what you're
9	saying on lines 8 through 12, it's a very valuable
10	network?
11	A. Yes, I think it's an extremely valuable
12	network.
13	Q. Now, we talked about AT&T owning a network
14	a minute ago. To your knowledge, does AT&T give
15	away any components of its network for other people
16	to use? And by give away, I mean to let them use
17	it for free.
18	A. Not to my knowledge.
19	Q. And you're not meaning to suggest in your
20	testimony here today that BellSouth should be
21	required to give away any part of it of the
22	value associated with its network; are you?
23	A. I'm not sure I understand your question or

Okay. I'll change it then. You're not

your word value.

Q.

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suggesting that BellSouth give away for free any part of the network it owns in your testimony; are you?

- A. I am not suggesting they give it away for free; that's correct.
- Q. Now, you also talk about -- on page 7, the likelihood -- you say it's unlikely that a potential competitor would be willing to invest the capital or duplicate, for our purposes, BellSouth's network in Florida; is that right?
  - A. Yes, that's my belief.
- Q. And do you have a specific reference at least in part there to say the local loop between the central office and the subscriber's premises?
  - A. Could you rephrase that?
- Q. Surely. When you talk about replicating the network, is one part of the network that you're talking about which is unlikely to be replicated, the local loop that runs between a subscriber's premises and the serving wire?
  - A. Yes, I am.

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Q. Okay. Now, is it correct that even today there are alternative ways that an ALEC could get to the subscribers; and specifically I mean cable facilities where there are cable TV runs to the

home, perhaps power facilities where there are 1 2 power lines to the individual homes? I'm not sure that those facilities can be 3 4 used to provide telephone service the way they're 5 configured. Okay. Will you agree -- AT&T either owns 6 out right or owns a significant portion of McCar 7 Cellular; doesn't it? 8 9 Well, that's AT&T wireless; yeah, it's a subsidiary. 10 One possible way to get to a subscriber's 11 premises is to put a cellular phone in the 12 13 subscriber's premises and have the linkage with AT&T's local network, assuming one existed, made 14 that way; isn't it? 15 A. I don't believe so. And I don't believe 16 17 that cellular is today a substitute for wire line service. I don't believe it provides the same 18 kinds of things that wire line service provides. 19 20 And I don't believe it can provide it at the same to the customer. 21 22 Well, let's explore that for just a moment and see if we can determine the basis for your 23

understanding. Do you have a cellular phone?

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Yes.

1	Q. Do you have a portable cellular phone?
2	A. Yes.
3	Q. Do you have a cellular phone that's
4	permanently installed in your car with an antennae
5	and a three watt power unit?
6	A. No.
7	Q. Okay. Have you had any experience with a
8	permanently installed cellular phone with a three
9	watt power unit?
10	A. No.
11	Q. I'm sorry. I didn't hear your answer.
12	A. No, I have not.
13	Q. Well, then, perhaps I'm trying to
14	understand why you believe that AT&T couldn't
15	establish something like a mobile telephone serving
16	office switching office at its switch location
17	and receive local calls from its subscribers over
18	that wireless loop, if you will. Can you explain
19	to me why you don't think that's possible?
20	A. I don't think the technology is available
21	to do that efficiently.
22	Q. Do you know anything about cellular
23	networks and cellular telephone systems? That's an
24	overly broad question. Let me be more specific.

25 Do you know anything about the kind of switch that

McCar or any other cellular company uses as it's 1 2 mobile telephone switching office? The -- A little bit about the switch. 3 4 Ο. Do you happen to know whether they're, 5 say, AT&T produced 5E's? They're very similar -- or they could be 6 7 very similar to 5E's, the switching function itself; yes. 8 9 And local telephone companies use 5E's to Q. 10 provide dial tone and service to it's customers --11 it's wire line customers; don't they? 12 Yes, they do. Α. 13 0. So, do you know of any technical reason 14 why AT&T couldn't use a 5E as a mobile telephone 15 switching office to generate local wireless loops 16 to its subscribers instead of having to be --17 having to use the LEC's wire line loops? 18 I don't think the question is whether or 19 not the switch would work. I think the switch 20 I think the technological problems lie would work. 21 in the radio signals and how you could get that 22 many radio signals out to that many people in an 23 efficient way with today's technology.

studies regarding the feasibility of providing

Do you know whether AT&T has conducted any

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Q.

service using wireless loops? 1 2 I'm not aware of any. A. 3 Just a moment, Mr. Guedel, I'm Q. Let's see. trying to skip ahead. Well, I want to look at page 11 of your testimony, please. 5 (Complying with request of counsel.) 6 At line 9, the answer begins, "Yes, the 7 cross connect function." 8 q Α. Yes. 10 Are you there with me? 11 Yes. A. I didn't see cross connect function as one 12 Q. of your basic network functions that you described 13 14 Did I miss that or is that a new one? earlier. Let me check. Let me see what I've got. 15 The cross connect function is not listed 16 in the initial list up front. 17 So, I need you to explain to me what you 18 Q. mean by cross connection function and if you could, 19 I interpreted it to mean basically just a cross 20 strap with no switching at a CO. But could you 21 confirm that that's what you mean or explain what 22 you mean if that's not what you mean. 23 That's -- Yes, I think that's correct, 24 particularly when we're talking about the unbundled

loop, we're talking about cross connecting that loop -- that Bell loop to some facility that an ALEC may have co-located in a LEC office.

- Q. And the -- what I call the cross strapping -- and I say strapping because I view it as just a cable or something running between the two points.

  Is that what you have in mind?
  - A. Yes.

- Q. And so, in other words, you might bring a local loop that you've purchased on an unbundled basis to a BellSouth wire center and then simply run a jumper, if you will, from the ends of that local loop to another facility which is used to transport the call to AT&T switch. Is that the kind of facility you're talking about there?
  - A. That's correct. That's a possibility.
- Q. And could the -- could the -- What would be the facility that would run between BellSouth's wire center and the AT&T facility? Is there any general description of what that would be?
  - A. No, you've lost me.
- Q. All right. To get the call from the serving wire center of BellSouth to the AT&T switch, if you will, you've got to have some kind of a facility, a cable pair, a fiber optic run,

something; don't you? 1 2 Α. Yes. 3 Q. Okay. Α. Yes, it would. Would you -- Since that facility would run 5 from BellSouth's serving wire center to AT&T's 6 7 property, would that be something that you would expect to be able to buy on an unbundled basis, or 8 9 is that the equivalent of an access connection, or 10 how do you see that particular facility being 11 constructed and paid for? 12 Α. I would like to have three options. And what would they be? 13 I would like to be able to build a 14 facility myself, purchase the facility from 15 16 BellSouth or purchase it from some other potential provider of that facility. For the most part, I'm 17 kind of limited today to purchasing the facility 18 19 from BellSouth. 20 And if you purchased it from BellSouth --Ο. I'm sorry. You do purchase facilities between 21 22 BellSouth's wire center and tandems and your facility today; don't you? 23 24 Α. Yes.

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And what do we call those facilities that

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you purchase or lease from us? l 2 Dedicated transport facilities. 3 Are they tariffed matters and tariffed Q. items right now? Yes, transport is tariffed. 5 A. I couldn't hear your answer. 6 Q. I'm sorry. 7 A. Yes, transport is tariffed. Would you expect to buy that facility in 8 this unbundling scenario at the tariffed rate as 9 you purchase it today, or would you expect it to 10 be, quote, unbundled, close quote, at a different 11 12 price? 13 Ultimately, I think the prices ought to be I think I ought to be able to buy one 14 the same. 15 facility and use it for whatever purposes I deem I would expert there to be one price 16 reasonable. That's not for the -- for the transport facility. .17 18 to say I think the price you charge today is the right price. 19 20 Q. All right. But the facility that you're describing is available today for your purchase? 21

in order to have this interconnection between the

Yes, I think dedicated facilities --

And the facilities that you would require

transport facilities are available.

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Q.

1 BellSouth wire center and your facility when you 2 become a local carrier, the functionality would be 3 no different than it is today; would it? A. Essentially ... I didn't get your answer. 5 Q. 6 Essentially, it would be the same. 7 Turning to page 12 of this testimony, and my -- I've already demonstrated today that my 8 9 understanding of the network is tenuous at best, but do you know whether AT&T today in Florida has 10 11 direct connections to every end office in 12 BellSouth's territory? I don't know that for a fact; no. 13 Do you have any idea or opinion about what 14 Q. portion of BellSouth end offices to which AT&T has 15 a direct connection as opposed to only a connection 16 17 through a tandem? My belief is that we are direct connected 18 Α. to quite a few of them. 19 20 Is it your understanding -- and I'll tell Q. you in asking the question it is of my 21 understanding -- that AT&T is connected to the --22

to a substantial majority of BellSouth's end

On a direct connect basis?

offices in Florida?

Α.

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Ο.	Yes.
<b>.</b>	165.

- A. I have no reason to doubt that. I know we're connected to quite a few of them. I don't know how many. It could be all of them. I mean, I just don't know.
- Q. That's fine. Do you have any other witnesses in this proceeding that might have more knowledge about this than you?
  - A. No.
- Q. Now, you are suggesting that the pricing for these unbundled elements be no higher than total service long run incremental cost; is that correct?
  - A. That's correct.
- Q. You were in the costing organization as I understand it at some point in your history, so can you provide me with a definition of what you mean by total service long run incremental cost?
- A. Basically total service long run incremental cost is a forward looking estimate of the direct costs associated with providing particular service. I guess said another way it is the cost that the company would forego if they did not provide a particular service.
  - Q. You said it was a forwarding looking cost.

A. Yes.

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- Q. You have no opinion about how far in the future the cost should look?
- A. The term of the cost study will depend upon what your -- you know, what element or what service you're looking at. It's going to depend upon how long you think you're going to offer the service. It's going to depend upon the equipment you use to provide the service so there's no absolute date or time.
- Q. I didn't mean to cut you off. Are you done with your answer?
  - A. Yes.
- Q. Well, let me -- and I'm probably going to demonstrate my ignorance here, too. Is it possible that in a total service long run incremental cost that you would use costs that were based on, say, the next generation of switch rather than the current generation of switch used to provide the service?
- A. I think -- I think I could imagine a situation where you would do that. But if you're looking over the term of providing the service, you would probably tend to look at the mix of switches that you would have in place over that particular

1	time.
2	Q. Let me ask a different question. Is it
3	possible I'm sorry. Let me back up a minute.
4	Is it AT&T's position that the telecommunications
5	industry is a declining cost industry?
6	A. I think as a general rule, that's true.
7	Q. Well then, would you agree that if that's
8	correct that as a general matter, total service
9	long run incremental cost would tend to be lower
10	than actual cost incurred today to provide the
11	service?
12	A. I don't know that for a fact, Mr. Lackey.
13	Q. Well, let's see if we can approach it a
14	different way.
15	A. Okay.
16	Q. You do agree that that there is a cost
17	today for providing basic residential service;
18	won't you?
19	A. A cost today
20	Q. Yeah.
21	A for providing the service. There is
22	certainly there is a cost to provide service.
23	Q. And will you agree that the cost today is
24	based on the network that exists today, the items

that are in the ground, in the switches and that

sort of thing?

- A. For purposes of pricing the service, the costs are the forward looking cost of providing the service.
  - Q. I understand that that's your position.
  - A. Uh-huh (affirmative).
- Q. What I'm asking you about is the cost -the cost of a residential line today -- the cost is
  based upon the investment and expenses that are
  made today to provide that service; would you agree
  with that?
- A. Not for pricing purposes, I will not agree with that. The accounting costs can be a variety of different things, depending upon how you do your accounting, whether you've written things off or whether you haven't written things off. I don't believe the accounting costs are relevant for the pricing decision.
- Q. Let's -- let me use a simple example and see if we can get to the principle of this issue. Let me ask you to assume that today you purchased an ice making machine and that you're intending to go in the business of making and selling ice. And that you purchased the machine today and it cost you \$100.

A. Okay.

- Q. And tomorrow somebody invents a nice ice making machine that can do the same work that yours can do. It'll be available in 30 days and it's only going to cost \$50.
  - A. Okay.
- Q. Under a total service long run incremental cost study, it would be the price of the ice machine that you could purchase in 30 days that would provide the total service long run incremental cost; isn't it?
- A. Yes. And for pricing purposes that's the relevant cost because if I tried to price the service on the old cost, I wouldn't sell anything.
- Q. Okay. But if you priced your ice based on that total service long run incremental cost of \$50 that we talked about, you wouldn't be able to recover the \$100 -- the cost of the \$100 machine that you'd just purchased; wouldn't you?
- A. I wouldn't be able to recover it if I didn't either. The point is I would be better of pricing it at the total service long run incremental cost because then I would get some customers. I would recover some dollars. If I tried to price it based on the other cost, I

wouldn't get any customers.

A. .

- Q. Now, let's leave alone -- leave aside the pricing issue for a moment. You will agree in my little example, though, that today's cost, in my example, is higher than the total service long run incremental cost of the same service; won't you?
- A. If you -- You defined the cost as \$100 for one unit and \$50 for the other unit, a \$100 is bigger than \$50.
- Q. So, the answer is, yes, the present cost is higher than the total service long run incremental cost in my very limited narrow example; correct?
- A. I would agree with that in an accounting sense, but not in a pricing sense. The cost is the total service long run incremental cost in both cases of the forward looking technology.
- Q. Well, you're not a lawyer, are you, Mr. Guedel?
  - A. No, Mr. Lackey.
    - Q. Pardon me?
- A. No.
- Q. Okay. Well, good, that saves you line of questions. And probably you're entitled to congratulations, too.

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Well, let's go back to my larger example of the telephone company trying to establish the same relationship we just talked about with regard to the ice machine. Α. Okay. If, as you maintain or said rather, the telephone industry is a declining cost business, then it would stand to reason that the cost of telephone service today in the sense that I used it when I talked about the current cost of my ice machine is higher than the total service long run incremental cost on that same service; isn't it? I don't know the answer to that. I don't know what you mean by cost today. If you're talking about accounting costs, I mean we really don't have a valid comparison. Would you call my \$100 expense for my ice Q. machine an accounting cost? I do if you purchased it; yes. Α. I'm sorry. If I purchased it what? Q. If you purchased it, it is an accounting 21 22 cost. 23 Q. Okay. I see. Let me approach it this way: Do you then

maintain that the money already expended for a

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telephone plant in Florida represents an accounting cost and that cost should not be considered for any purpose in connection with this unbundling or resale proceeding, rather we should be looking at future cost, total service long run incremental costs which have not yet been incurred?

For the purposes of pricing, that's correct.

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- If total service long run incremental cost Ο. is lower than accounting cost, and you based prices or you fix prices at total service long run incremental cost, can the person who sells that service ever recover his total accounting cost?
- I don't know the answer to that. imagine a situation where he would not.
- Can you imagine a situation where he would unless the total service long run incremental cost eventually turned upward and exceeded the average accounting cost of the plant?
- Well, in a competitive environment, you have a lot of things you can do to manage your cost and price your services. And if you price your services at total service long run incremental cost and you are particularly innovative in the future vis-a-vis your competitors, then you can recover

something in excess of those costs, I would think.

- Q. All right. Let's move to another plane.

  Let's go back and talk about that local loop that

  we talked about some time ago that runs between

  your house and your serving wire center and why

  don't we suppose, just to keep it simple, that it's

  just a twisted pair from your house to the serving

  central office and that there's no loop

  concentrator or multiplexer or SLC, okay?
- 10 A. Okay.

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- Q. Do you have any idea what it cost today to run such a facility on a per foot basis or any other basis?
  - A. No, I don't.
- Q. Do you think the cost of running such a loop is going down or going up?
  - A. I would -- I'm really not sure.
- Q. Why don't we just make an assumption then.
- 19 A. Okay.
- Q. We can address it that way. Let's assume that it cost \$2,000 to run the pair from the central office to your house today.
- 23 A. Okay.
- Q. I paid a contractor this week to do it and it took him a week to put it in, \$2,000.

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A. Okay.

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- Q. Suppose a total service long run incremental cost shows that the cost of that loop, if it were put in six months from now, would only be \$1,000. That's possible; isn't it?
  - A. Yes, it's possible.
- Q. If BellSouth charged an ALEC the total service incremental cost for that loop, that is, based on \$1,000, can you tell me how BellSouth would then recover the \$2,000 investment it has in that local loop?
- A. They would not recover the total -- the \$2,000 investment, but that is relevant to their pricing decision. They made a bad decision.
- Q. All right. Should -- In that circumstance where it cost BellSouth \$2,000 to run a loop and a new loop could be run for \$1,000, what would be wrong with giving the ALEC the alternative of paying the \$2,000 for the loop or putting in it's own loop for \$1,000?
- A. Pricing your loop on a \$2,000 basis is not the proper cost to use for pricing the service.
- Q. I understand your position, but -- but what I'm trying to ask you is if BellSouth has written a contractor a check for \$2,000 and you as

an ALEC only want to pay BellSouth a \$1,000 for the essentially exclusive use of that loop...

A. Right.

- Q. -- what's wrong with -- with the existing company saying I've got \$2,000 in it, you either pay me the \$2,000 or build your loop for \$1,000?
- A. Okay. In a fully competitive environment, there wouldn't be anything wrong with that, if it wasn't for the fact that BellSouth still possesses a monopoly on all those loops out there and that the example you give is not universally true. In fact, it's not true in very many places at all. The pricing situation will not work. It will work. I take that back. It will work for BellSouth. It will not work for the -- and user customers or the development of competition.
  - Q. And why do you say that?
- A. Because if BellSouth builds in excess contribution into the underlying monopoly services that it prices and sells to potential competitors, they have advantaged themself in the market place by exacting that contribution from their competitors. If they price the service at their cost, then everybody effectively pays the same cost for the service and you can compete in a

- competitively neutral manner with respect to that underlying facility.
- Q. But in my example, wouldn't your pricing theory essentially require a demand that BellSouth eat -- if I can use that economic term -- the \$1,000 difference between what it paid for the loop and what the total service long run cost of the loop is?
- A. Well, I'm not sure about your term eat. In a fully competitive environment, BellSouth would never be able to recover the cost you're talking about. The only reason they have half a chance of recovering that cost is because they have an monopoly and they can charge monopoly rents. And we don't think that's appropriate. We believe they should price their services as they would be priced in a fully competitive market so we can get competition started, and you shouldn't benefit any longer from the virtue of your monopoly.
- Q. Do you know that there's at least a possibility that BellSouth will be allowed into the interlata toll market at some point in the future; isn't there?
  - A. There's a possibility, Mr. Lackey.
- Q. I'm sure we will never agree on the degree

of possibility, but there is a possibility. Does your position with regard to the way we ought to price our local loop mean that -- mean that when BellSouth comes to AT&T and says, "We would like to purchase on an unbundled basis your interstate network so that we can compete with you," that AT&T's going to be willing to offer up those facilities at the total service long run incremental cost?

- A. No, but we're talking about two different situations.
  - Q. I thought you might think that.
- A. We are talking about a situation where BellSouth entering -- and again assuming that the opportunity is granted them to enter the interexchange market, have a variety of options for providing interexchange service. There are no options to get to that last mile to the customer today. BellSouth still has a monopoly, and that's why we're prescribing the methodology that we're prescribing.
- Q. Well, Mr. Guedel, if you know, in 1984, when MCI didn't have a ubiquitous network or Sprint didn't and they had to buy your network for resale purposes, did you sell it to them at the total

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1	service long run incremental cost?
2	A. I don't know what we sold it to them for
3	We
4	Q. Did you sell it to them at your tariffed
5	watts rates?
6	A. I think probably day one they had the
7	option of buying watts from AT&T yes. I don't
8	think we had any other services available at that
9	point. Today we do.
10	Q. Well, today, do you sell any of your
11	competitors access to your facilities at total
L2	service long run incremental cost?
13	A. I don't know.
L <b>4</b>	Q. All right. I believe that concludes my
L 5	questions with regard to the 84 docket. I guess,
16	Donna, do you have anything for Mr. Guedel in the
17	84 docket?
18	MS. CANZANO: Staff has no questions.
19	MR. FALVEY: This is Jim Falvey for
20	MFS and I have no questions.
21	(Whereupon, a discussion ensued off
22	the record.)
23	MR. LACKEY: Could we have your
24	appearance then for the
25	MP FALVEY: Sure by all means

1	James C. and my last name is Falvey, F as
2	in Frank, a-l-v-e-y. I'm with Swidler &
3	Berlin, S-w-i-d-l-e-r and Berlin, as in
4	Germany, and I'm on behalf on Metropolitan
5	Fiber Systems of Florida, Inc.
6	MR. LACKEY: Just one more thing so
7	that we'll have no misunderstanding on the
8	record. Can you give us an indication of
9	when you joined us in the deposition?
10	MR. FALVEY: I joined at about three
11	minutes after 2:00 and to be honest, I've
12	been in and out over the course of the
13	deposition.
14	MR. LACKEY: So, you were here right
15	near the beginning of the deposition?
16	MR. FALVEY: Yeah. I think you were
17	towards the end of the towards the end
18	of the general stipulations.
19	MR. LACKEY: Then, I suppose that's it
20	for the 950984 docket.
21	(Whereupon, the foregoing matter was
22	concluded at 4:35 P.M.)
23	-000-

#### CERTIFICATE

STATE OF GEORGIA )
COUNTY OF NEWTON )

I, Brenda C. Davis, Certified Court
Reporter, and Notary Public in and for Newton
County, Georgia, do hereby certify that the
foregoing deposition was taken down by me, as
stated in the caption; that the foregoing questions
and answers were reduced to print by me; that the
foregoing pages 4 through 65 represent a true,
correct, and complete transcript of the evidence
given by the witness, MIRE GUEDEL, who was first
duly sworn by me; that I am not a relative,
employee, attorney or counsel of any of the
parties; that I am not a relative or employee of
attorney or counsel for any of said parties; nor am
I financially interested in the outcome of the
action.

This, the 22nd day of December, 1995.

BRENDA C. DAVIS, CCR-B-1572 Notary Public

My commission expires: December 12, 1999.

VERBATIM COURT REPORTERS, INC.

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BellSouth Telecommunications, Inc. FPSC Docket No. 950984-TP Witness Scheye Direct Testimony Exhibit RCS-1 Page 1 of 1

### ISSUES LIST FOR DOCKET NO. 950984-TP

- 1. What elements should be made available by BellSouth to MFS and MCImetro on an unbundled basis (e.g. loop elements, port elements, loop concentration, and loop transport)?
- 2. What are the appropriate technical arrangements for the provision of such unbundled elements?
- 3. What are the appropriate financial arrangements for each such unbundled element?
- 4. What arrangements, if any, are necessary to address other operational issues?

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET SURVEY TO EXHIBIT NO 1D
COMPANY/
WITNESS: MCImetao
DATE: 11/1/36

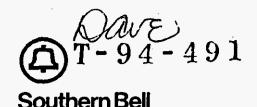
TPSC-RECORDS/REPORTING

BellSouth Telecommunications, Inc. FPSC Docket No. 950984-TP Witness Scheye Direct Testimony Exhibit ____ RCS-2 Page 1 of 1

### **NEGOTIATION ITEMS**

#### UNBUNDLING

- PRICE
- DIRECTORY ASSISTANCE
- LISTINGS
- COLLOCATION
- LOOPS AND PORTS
- NUMBER PORTABILITY
- 911
- LINE INFORMATION DATA BASE (LIDB)
- 800 DATA BASE
- SIGNALING
- OPERATOR SERVICES
- POLES, DUCTS AND CONDUITS
- FORECASTS/TIMING



A. M. Lombardo Assistant Vice President Suite 400 150 South Monroe Street Tallahassee, Florida 32301

RECEIVED

AUG 10 1995

September 9, 1994

Mr. Walter D'Haeseleer Director, Division of Communications Florida Public Service Commission 101 East Gaines Street Tallahassee, Florida 32301

Dear Mr. D'Haeseleer:

Pursuant to Fiorida Statute 364.05 we are filing herewith revisions to our General Subscriber Service Tariff. Following are the affected pages:

# General Subscriber Service Tariff

Subject Index

- Ninth Lavisco Page 2

Section Al

- Fifth Revised Page 1

Section A2

- Sixth Revised Page 4

Second Revised Page 9

Section A3 Contents

Fifth Revised Page 4

Original Page 5

Section A3

Fourth Revised Page 91

- Third Revised Page 91.1

Section A4

Seventh Revised Page 3

The purpose of this filing is to introduce Back-Up* Line Service. Back-Up* line is an optional additional line service which allows business customers to flexibly expand incoming access to their business, and expand the capacity to make outgoing calls, on an as-needed basis.

Service Mark of BellSouth Corporation

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET
NO. 250984-TFEXHIBIT NO. 11

COMPANY! BS / Schere

DATE: 41156

A BELLSOUTH Company

The following attachments provide additional supporting and explanatory information for the proposed tariff revisions:

Attachment A - Executive Summary
Attachment B - Service Description
Attachment C - Technical Information
Attachment D - Market Information
Attachment E - Revenue Information
Attachment F - Cost Information

Your consideration and approval will be appreciated.

Acknowledgment, date of receipt and authority number of this filing are requested. A duplicate letter of transmittal is attached for this purpose.

Yours very truly,

Assistant Vice President - Regulatory Relations

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**Attachments** 

### **EXECUTIVE SUMMARY**

T - 94 - 491

## Introduction

The purpose of this filing is to introduce Back-Up* Line service for business customers. Back-Up* Line is an optional additional line service which allows business customers to flexibly expand incoming access to their businesses, and expand the capacity to make outgoing calls, on an as-needed basis.

## **Description of Present Tariff**

No such offering exists in the current tariff.

## **Description of Proposed Tariff**

Back-Up* Line is specifically designed for customers who experience periodic peaks and valleys in calling volumes to and from their businesses, or who need a separate line to send an occasional fax, credit verification or other outgoing call when another open line is not available.

Back-Up* Line service is priced at one-half the existing recurring 1FB rate, plus \$.05 per minute of use for outgoing calls within the customer's basic local calling area, and for incoming minutes of use. Usage will not be charged for calls to the Company Business Office, Repair Service, or Emergency 911 Service. Each Back-Up* Line can receive overflow calls directly from only one line or hunt group, without charge, per Back-Up* Line. Overflow capability from additional primary lines or hunt groups to a Back-Up* Line will be provided on the forwarding line at the rate specified in the Rotary Service tariff.

#### **Technical Information**

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There are two basic Back-Up* Line architectures:

- 1) Stand-alone Back-Up Lines;
- 2) Primary lines (flat, message rated or measured) with overflow to Back-Up* Line.

Examples of service arrangements allowed with Back-Up* Line include:

- a) One Primary line with overflow to a Back-Up* Line.
- b) More than one Primary line (with sequential hunting between primary lines). The last Primary line overflows to a Back-Up* Line.
- c) One or more Primary lines (with sequential hunting between Primary lines). The

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Southern Bell - Florida
Attachment A
Page 2 of 2 T - 94 - 491

last Primary line overflows to a Back-Up* Line. This Back-Up* Line may overflow to another Back-Up* Line.

Central Office software capability to provide Back-Up Line is accomplished with Enhanced In-WATS Terminating Arrangement (EITA). For the 1AESS and 5ESS switch, Simulated Facility Groups (SFGs) are also required.

## Market Information

Market research within the BellSouth region as well as experience in South Central Bell states indicate significant demand for Back-Up* Line. The target market for this service are those small business customers who are looking for an economically priced additional line for occasional use. Back-Up* Line will meet the needs of small business customers looking for a cost-effective, gradual means of migrating to higher line sizes as their business grows.

### Revenue Information

Southern Bell's estimated first year gross revenue for Back-Up* Line is \$1,788,676.02, with a corresponding net revenue increase of \$452,188.98 Additional revenue information is shown as Attachment E.

## Cost Information

Levelized Resource Cost Methodology was used in the cost study developed for this filing. Additional cost information is shown as Attachment F.

The cost of money used in this study is 12.5%.

## Conclusion

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Back-Up* Line Service is anticipated to be an attractive alternative for small business customers looking to expand their services on an incremental basis. By giving these customers a management tool to evaluate additional usage, Southern Bell is better able to serve this market segment, while generating additional revenues from this offering.

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#### SERVICE DESCRIPTION

Back-up* Line is an optional additional line service which allows business customers to flexibly expand incoming access to their businesses, and expand the capacity to make outgoing calls, on an as-needed basis. The service is specifically designed for customers who experience periodic peaks and valleys in calling volumes to and from their businesses, or who need a separate line to send an occasional fax, credit verification or other outgoing call when another open line is not available.

Back-up* Line service cannot be utilized as the primary business line, and must be co-located with an associated business individual line (e.g., 1FB or 1MB). The service is not available for use as PBX trunks or ESSX^R NARs. A directory listing is not provided, but may be purchased separately.

Back-up* Line service is priced at one-half the existing recurring 1FB rate, plus \$.05 per minute of use for outgoing calls within the customer's basic local calling area, and for incoming minutes of use. Usage will not be charged for calls to the Company Business Office, Repair Service, or Emergency 911 Service. For customers with measured or message rate plans, the recurring monthly rate, incoming usage, and outgoing calls within the basic local calling area will be priced the same as for flat rate customers. No usage caps or allowances will be applicable.

The outgoing billing scope, dialing plan, and usage rates will match those of the corresponding expanded local calling plan for local calls beyond the customer's basic local calling area. For example, a Back-Up* Line outgoing call between Orlando and Sanford will be rated at 10 cents for the first minute of use and 6 cents for each additional minute. Non-sent paid calls and other types of outgoing traffic (such as toll, calls to 800 Service, Directory Assistance, N11, etc.) will be billed per the existing arrangements and rate structures for each type of call.

Each Back-up* Line can receive overflow calls directly from only one line or hunt group without charge. Overflow capability from additional primary lines or hunt groups to a Back-up* Line will be provided on the forwarding line at the rate specified in the Rotary Service tariff.

Back-up* Line customers are provided a Monthly Calling Activity Summary as part of their regular monthly bill. This report includes a monthly count of incoming and outgoing calls, minutes of use and associated charges. The call detail information helps the customer determine additional business line needs. Since all incoming usage on the report represents valuable business calls previously missed (overflows), the report constantly reinforces the subscriber's Back-up* Line buying decision, thus facilitating a maximum location life.

^{*}Service Mark of BellSouth Corporation

Registered Service Mark of BellSouth Corporation

### TECHNICAL INFORMATION

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### **Architecture**

The hardware architecture used for Back-up* Line is identical to existing customer exchange lines. Back-Up Lines are associated in the switch software with the EITA/TBO feature in order to record originating and terminating usage. In some switches, Simulated Facilities Groups (SFGs) are also required for recording incoming usage on Back-Up Lines.

There are two basic Back-up* Line architectures:

- 1) Stand-alone Back-Up Lines;
- 2) Primary lines (flat, message rated or measured) with overflow to Back-up* Line.

Examples of service arrangements allowed with Back-up* Line include:

- a) One Primary line with overflow to a Back-up* Line.
- b) More than one Primary line (with sequential hunting between primary lines).

  The last Primary line overflows to a Back-up* Line.
- c) One or more Primary lines (with sequential hunting between Primary lines). The last Primary line overflows to a Back-up* Line. This Back-up* Line may overflow to another Back-up* Line.

## Signaling Plan

Back-up* Line does not change the existing Signaling in the network.

## Numbering/Dialing Plan

->,

Back-up* Line does not affect the existing numbering or dialing plan.

### Software Requirements

Central office software requirements to accommodate Back-up* Line are associated with the ability to generate incoming call and usage data measurements for billing purposes. That capability is provided in most switches with Enhanced In-WATS Terminating Arrangement (EITA). In addition, SFGs are required in the 1AESS and 5ESS.

The particular feature package and generic required for EITA, along with the current deployment plans, are as follows:

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Attachment C

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- 1AESS Switch: Deployed in all offices
  Feature Package FF027
  Name EITA
  Generic Requirement 1AE8A.07
- DMS100 Switch: Deployed in all offices
  Feature Package NTXE43AA
  Name EITA TBO
  Generic Requirement BCS 30
- 5ESS Switch: Limited Deployment
  Feature Package EITARTU
  Name EITA
  Generic Requirement 5E6
- Stromberg-Carlson DCO
  Feature Package 241859 (Deployed)
  Name Two-Way AMA For Lines
  Generic Requirement 17.2
- AND -

Feature Package 241871 (Buyout, To Be Deployed) Name - Two-Way AMA - Eliminate 0+/0- Ticketing Generic Requirement 17.3

- Siemens EWSD: Not available at present.

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#### MARKET INFORMATION

Back-up* Line is an additional line service available to individual business lines; its target market is the small business customer. However, any business customer may have a need for this service and purchase Back-up* Line. The service will meet the needs of any business that experiences fluctuations in calling volumes. With Back-up* Line Service, a business can reduce the probability that customers reach a busy signal when calling. By utilizing the traffic data on their usage on the Back-up* Line, business customers can accurately and efficiently plan the expansion and growth of their business. Upgrading to a full rate 1FB from a Back-up* Line can be accomplished without incurring a Service Order charge.

Business customers can use the traffic data provided to determine whether a particular advertising campaign is effective. Other potential benefits of Back-up* Line are increased employee productivity by utilizing Back-up* Line for occasional fax or modem use, and the capability of provisioning additional services such as User Transfer and voice messaging with Back-up* Line Service.

Back-up* Line is substitutionally cross-elastic with other individual line exchange service offerings, as well as Hunting, in two ways. First, it can be used as a substitute for existing lines with or without Hunting (downward migration) and, depending upon the usage of those lines and the location life of the replaced line, may result in a net revenue reduction. Secondly, Back-up* Line can be sold in lieu of what would have been a fully rated new line with or without Hunting (forward migration). Again, depending upon line usage, this may result in a net revenue reduction. However, based on US West's experience, both types of negative migration will total no more than 5% of sales. To discourage substitution of existing lines, a Service Ordering Charge is applicable; whereas no charge applies when upgrading from Back-up* Line to a fully rated line.

Back-up* Line service will have at least two complementary cross-elastic relationships with other offerings. First, it provides for a natural migration path to a fully rated exchange service line once Back-up* Line usage exceeds the flat rated line break-even point. Ideally, the customer will incrementally add the fully rated line and continue to subscribe to Back-up* Line. Secondly, Back-up* Line is complementary to the sale of vertical services provisioned on the line itself. This would most commonly include Call Transfer or voice messaging service.

By facilitating call completions, Back-up* Line also generates incremental revenue through usage and access charges from the call originator. The improved call completions reduce network costs as well.

It should be pointed out that Back-up* Line service provides a "sales save" tool that, if used effectively, can far offset any negative cross-elasticity that might be realized. Annually, BellSouth business customers disconnect approximately 81,000 additional lines (from existing service only; not counting account disconnects and moves). A large number of those lines are removed because customers do not believe they are utilizing the service enough to justify the full price. Back-up* Line is an ideal "sales save" tool for those situations.

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## YEAR 1 REVENUE ANALYSIS

### 1. Back-Up* Line Service

Line No.	Description	Source	Amount
1	Back-Up* Line First Year Estimated Quantity	BST Forecasting	Amount 12067
2	Average Back-Up* Line Quantity	L1/2	6033.5
3	Average Back-Up* Line Monthly Rate	BST Number of Lines Report	\$13.89
4	Annual Recurring Revenue	L2 * L3 * 12	\$1,005,663.78
5	Usage Rate (Per Minute of Use)	Southern Bell Tariff	\$0.05
6	Average Monthly Minutes of Use Per Line	BST Product Management	220
7	Annual Usage Revenue	L2*L5*L6*12	\$796,422.00
8	Annuai Back-Up* Line Revenue	L4 + L7	\$1,802,085.78
2. C	ross-Elastics		
	A. Complementary		
Line No.	Description	Source	Amount
9	Additional Hunting Units Associated With Back-Up* Line	BST Forecasting	894
10	Average Hunting Quantity	L9/2	447
11	Average Monthly Hunting Rate	BST Number of Lines Report	\$9.75
12	Annual Recurring Hunting Revenue	L10 *L11 *12	\$52,299.00
13	Additional User Transfer Units Associated With Back-Up* Une	BST Forecasting	692
14	Average User Transfer Quantity	L13/2	346
15	*Mandala I Inna Tanantas Data	Southern Bell Tariff	\$5.00
16		L14 * L15 * 12	\$20,760.00
17	Annual Complementary Cross – Elastic Revenue	L12 + L16	\$73,059.00
.,	Annual Completionally Cluss-Classic Feverine		<b>\$10,003.00</b>
	B. Substitute		
18	Decrease in Flat Flate Business Lines	BST Forecasting	-429
19	Average 1FB Decrease	L18/2	-214.5
20	Average 1FB Monthly Rate	BST Number of Lines Report	\$27.77
21	Annual 1FB Revenue Loss	L19 * L20 * 12	(\$71,479.98)
22	Decrease in Message Rate Business Lines	BST Forecasting	-123
23	Average 1MB Decrease	L22/2	-61.5
24	Average 1MB Monthly Rate	BST Number of Lines Report	\$20.31
25	Annual 1MB Revenue Loss	L23 * L24 * 12	(\$14,988.78)
26	Annual Substitute Cross-Elastic Revenue	L21 + L25	(\$86,468.76)

L8 + L17+L26

\$1,788,676.02

*Service Mark of BellSouth Corporation

27 TOTAL REVENUE CHANGE DUE TO BACK-UP* LINE

#### YEAR 1 COST ANALYSIS

#### 1. Back-Up* Line Service

Line No.	Desc ription	Source	Amount
1	Back - Up * Line First Year Estimated Quantity	BST Forecasting	12067
2	Average Back - Up* Line Quantity	L1/2	6033.5
3	Back-Up* Line Monthly Cost	BST Economic Analysis	\$18.74
4	Annual Recurring Cost	£2 ° L3 ° 12	\$1,356,813.48
· <b>5</b>	Usage Cost (Per Minute of Use)	BST Economic Analysis	\$0,002.
6	Average Monthly Minutes of Use Per Line	BST Product Management	220
7	Annual Usage Cost	L2*L5*L6*12	\$31,856.68
8	Annual BackUp* Line Costs	L4 + L7	\$1,388,670.36

#### 2. Cross-Elastics

### A. Complementary

Line No.	Description	Source	Amount
9	Additional Hunting Units Associated With Back-Up* Une	BST Forecasting	894
10	Average Hunting Quantity	L9/2	447
11	Hunting Recurring Cost	BST Economic Analysis	\$0.00
12	Annual Recurring Hunting Cost	L10 *L11 * 12	\$0.00
13	Additional User Transfer Units Associated With Back - Up* Line	BST Forecasting	692
14	Average User Transfer Quantity	L13/2	346
15	User Transfer Recurring Cost	BST Economic Analysis	\$2.29
16	Annual Recurring User Transfer Cost	L14 * L15 * 12	\$9,508.08
17	Annual Complementary Cross - Elastic Costs	L12 + L16	\$9,508.08
	B. Substitute	$\mathcal{B}_{\hat{L}}$	
18	Decrease in Flat Rate Business Lines	BST Forecasting	-429
19	Average 1FB Decrease	L18/2	-214.5
20	1FB Monthly Cost	BST Economic Analysis	\$18.64
21	Annual 1FB Cost	L19 *L20 * 12	(\$47,979.36)
22	Decrease in Message Rate Business Lines	BST Forecasting	-123
23	Average 1MB Decrease	L22/2	-61.5
. 24	1MB Monthly Cost ²	BST Economic Analysis	\$18.58
25	Annual 1MB Cost	L23 * L24 * 12	(\$ 13,7 12.04)
26	Annual Substitute Cross-Elastic Costs	L21 + L25	(\$61,691.40)
27	TOTAL COST CHANGE DUE TO BACK-UP* LINE	L8 + L17 + L26	\$1,336,487.04

^{*}Service Mark of BellSouth Corporation

¹Overflow cost included in Back-Up* Line cost Includes cost for 75 message allowance

#### YEAR 1 COST AND REVENUE ANALYSIS

Line No.	Description		Source	Amount
1	Annual Back-Up Line Revenue		Pg1 LB	\$1,802,085.78
2	Annual Complementary Cross-Electic Revenue		Pg1 L17	\$79,059.00
3	Annual Substitute Cross-Elastic Revenue		Pg1 L26	(\$86,468.76)
4	Total Revenue Change Due To Back-Up* Line		L1 + L2 + L3	\$1,788,676.02
5	Annual Back-Up Line Cost		Pg2 L8	\$1,388,670.36
6	Annual Complementary Cross-Elastic Costs		Pg2 L17	\$9,508.08
7	Annual Substitute Cross-Elastic Costs		Pg2 L26	(\$61,691.40)
8	Total Cost Change Due To Back-Up* Line		L5 + L6 + L7	\$1,336,487.04
9	NET REVENUE CHANGE DUE TO BACK-UP*	UNE	L4 L8	\$452,188.98

Southern Bell - Florida Attachment F Page 1 of 8

## **Back-Up Service Cost Study**

#### Section 1 - Introduction and Overview

This study develops levelized long run incremental unit costs for Back-Up Line Service. Back-Up Line Service is an optional additional line service which allows business customers the ability to receive incoming calls and to originate outgoing calls on demand. This service provides an "overflow" arrangement when the customer's primary lines are busy. Back-Up Line is specifically designed for customers who experience periodic peaks in calling volumes to and from their business. As a separate line, the customer has the ability to send an occasional facsimile, modem, credit verification or other outgoing call when another open line is not available.

Cost are developed on a monthly and nonrecurring basis for a three-year study period. The results are levelized over the three years using 12.5% cost of money.

Section 2 - Summary of Results

**Recurring Costs:** 

Cost Element

Monthly Cost Per Line - Business Line Services

Recurring Cost: \$17.86

Usage Costs:

Inward Call Per Minute
Outward Call Per Minute

\$0.002240 \$0.002168

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Southern Bell - Florida Attachment F Page 2 of 8

## **Back-Up Service Cost Study**

## Section 3 - Description of Procedures

#### A. Narrative

Recurring costs for Back-Up Line are costs incurred for the access line associated with Business Line Services. The access line cost elements were not developed in this study. The appropriate costs are obtained from existing fundamental studies or specific studies performed to support the Back-Up Line feature. The access line costs include the monthly loop, non traffic sensitive line termination and billing. The access line recurring cost element also includes nonrecurring volume sensitive and non-volume sensitive expenses amortized over the location life of the service. Unit costs for nonrecurring non-volume sensitive expenses were developed by dividing the total of these expenses over the present worth of expected demand over the three year study period.

Nonrecurring expenses are one-time expenses that occur as a result of provisioning, installing and disconnecting the service. Provisioning the service includes the expense of the Right To Use Fees (RTU) for those offices that were not equipped with the Enhance In-WATS Terminating Arrangement (EITA) feature. The RTU fees for EITA feature in the 5ESS offices are based on the recent agreement between Product Procurement Management Service (PPSM) Department of BellSouth and AT&T, and then allocated to each state. The provisioning expenses include the initial translation work in AT&T central offices to establish the Back-Up Line feature. Another item included in the nonrecurring expense category is the translation work to activate and disconnect individual Back-Up lines. The work times, obtained from the Network Characterization and Cost Information Center (NCCIC), were multiplied by appropriate directly assigned labor rate for the technician performing the work. An additional nonrecurring expense is the development of the programs and procedures to bill the customers for the service. This item is calculated by multiplying the program development labor hours by the appropriate directly assigned labor rate. Advertising and Product Management expenses are also included. Advertising expenses are provided by Marketing and are a three-year projection. Product Management expenses consist of the directly assigned annual Pay Grade 5 manager loaded labor rate adjusted by the percentage of the manager's time associated with Back-Up Line divided equally between the states.

Usage costs consists of costs per minute for inward calls and outward calls. Inward per minute usage costs elements include: setup (including measurement), Call Forward Busy Line on a per call basis, Automatic Message Accounting (AMA) recording on a per call basis, Multiline Hunting adjusted for the one percent of the lines requiring that feature and conversation. Outward per minute usage costs include setup and conversation.

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## **Back-Up Service Cost Study**

# Section 3 - Description of Procedures

## **B.** General Study Assumptions

The following general assumptions apply to this study:

Cost of Money = 12.5%

Planning Period = 3 years

Economic Life of RTU, trans & billing = 4.5 years

Location Life = 4.5 years

Inflation Rate = Labor (1995: 2.9%, 1996: 3.4% and 1997: 3.6%)

## Section 4 - Specific Study Assumptions

## A. Deployment Strategies and Sources

This service will be deployed in the AT&T 1AESS and 5ESS and the Northern Telecom Inc. DMS100 offices. The Right to Use (RTU) fee for EITA feature in the 5ESS offices is based on the recent agreement between Product Procurement Management Service (PPSM) Department of BellSouth and AT&T, and then allocated to each state. Additionally, the decision to deploy Two-Way AMA feature, required for Back-Up Line Service in the Stromberg-Carlson DCO offices, had not been made by Network Planning; therefore, that type office was excluded from this analysis.

All the AT&T offices require what is known as a Simulated Facilities Group (SFG) in order to deploy Back-Up Line Service. This is a software device used to restrict services based on the amount purchased. The SFG simulates physical hardware facilities. The quantity of lines purchased is stored in memory and is used to identify and control the number of simultaneous calls for a given service. The SFG, depending on the office type, has a restriction on the number of lines that can be assigned to the group. In the 1AESS office, the capacity is 511 lines. In the 5ESS offices the capacity depends on the number assignment of the SFG. SFG's numbered 0 - 500 can have 1,984 lines assigned and SFG numbers 501 and above can have only 96 lines assigned to the group.

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## **Back-Up Service Cost Study**

## A. Deployment Strategies and Sources (continued)

Since neither a list of SFG assignment numbers nor a forecast of lines by office type was available, it was assumed that software translation work would be performed for one SFG in each of the AT&T switches. It is further assumed that the forecast of Back-Up lines by office type would parallel the distribution of Network Access Lines (NALs) by office type. Also the forecast of Back-Up lines would be equally distributed between the offices of the same type. Given these assumptions, the capacity of 511 lines per 1AESS SFG and 1,984 lines per 5ESS SFG would not be exceeded during the planning period. The number of offices were determined from the Local Switching Modernization Report dated 5/11/94.

#### **B.** Other Assumptions

In the development of the cost for the individual line translations, it was assumed that: 1) only Back-Up lines served by AT&T switches would required SFGs, 2) 80% of the Back-Up lines would required Call Forward Busy Line translations and 3) only 1% of the lines would require Multiline Hunt Group translations. The cost development for the Back-Up line loop used "Loop Is A Loop" methodology. In other words, non service specific loop lengths, deployment of facilities, etc. were used to determine the loop costs for Back-Up Service. The Network Costs Analysis Tool (NCAT), a computer model developed by Bell Communications Research (Bellcore), was used to develop the network usage costs which is also non service specific cost. The usage cost elements of setup and conversation were applied to the Back-Up line call characteristics to develop a surrogate usage cost. The call characteristics, provided by Product Management, are: 88 calls per month at 2.5 minutes per call.

### Section 5 - Factors and Loadings

The factors and loadings used in this study are listed below:

Gross Receipts Tax = 1.0157

#### Labor Rates:

JFC4391 = \$37.74 JFC4371 = \$37.74 JFC2751 = \$28.55

PG5 = \$46.56

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# **Back-Up Service Cost Study**

# Section 5 - Factors and Loadings (continued)

## Inflation Factors:

1995 = 1.029 1996 = 1.034 1997 = 1.036 Levelized = 1.06222

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# Recurring Cost - Access Line

LN	DESCRIPTION	SOURCE	AMOUNT
1 2 3 4 5	Back-Up Line Business Line Services  Monthly Cost Per Loop  Monthly Cost NonTraffic Sensitive Line Term  Billing Cost Per Line  Back-Up Line Business Line Services	Economic Analysis Economic Analysis Economic Analysis L2+L3+L4	\$15.53 \$1.56 \$0.77 \$17.86
7 8 9 10 11 12			
13 14 15 16 17 18			
19 20 21 22 23 24 25			
26 27 28 29 30 31	_	<b>&gt;</b> .	
32 33 34 35 36 37 38			
39 40 41 42 43 44			
45			

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**Usage Costs** 

T-94-491

TAL	DESCRIPTION	SOURCE	AMOUNT
LN 1	Inward Calis	SOURCE	AINOUNT
2	Inward Calls		•
3	Set-Up Cost Per Call	Economic Analysis	\$0.001707
4	CF-BL and SFG Cost	Economic Analysis	\$0.000150
5	AMA Record Cost	Economic Analysis	\$0.000060
6	Multiline Hunt Group Cost	Economic Analysis	\$0.000030
7	Percentage of Call Requiring CF-BL & SFG	Product Management	80%
8	Percentage of Call Requiring MLHG	Product Management	1% ¹ \$0.001887
9	Total Set-Up per Call	L3+(L4*L7)+L5+(L6*L8)	\$0.001667
10	Cost Per Conversation Minute	Economic Analysis	\$0.001485
11 12	Cost Per Conversation windle	2001011110741101yolo	,
13	Call Duration For BackUp Line in Minutes	Product Management	2.5
14	Can Duration? Or Dackop Enion		:
15	Cost Per Minute For Inward Calls	(L9+(L11*L13))/L13	\$0.002240
16	Coot for minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of minutes of mi		
17			
18	Outward Calls		
19			
20	Set-Up Cost Per Call	Economic Analysis	\$0.001707
21		1.00	\$0.001707
22	Total Set-Up per Call	L20	\$0.001707
23	A second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second	Economic Analysis	\$0.001485
24	Cost Per Conversation Minute	Economic Analysis	Ψ0.001100
25	Call Duration For BackUp Line in Minutes	Product Management	2.5
26 27	Call Duration For Backop Line in Minutes	, , , , , , , , , , , , , , , , , , , ,	
28	Cost Per Minute For Outward Calls	(L22+(L24*L26))/L26	\$0.002168
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Southern Bell - Florida Attachment F Page 8 of 8 T - 94 - 491

## Factors and Labor Rates

N:	DESCRIPTION	SOURCE	AMOUNT
1			4.045
	Gross Receipts Tax	Economic Analysis	1.0157
3 '		·	
	Labor Rates	Farmania Anabaia	627.7
	JFC4391 RCMAC	Economic Analysis	\$37.74
6	JFC4371 SCC	Economic Analysis	\$37.7
	JFC2751 Network Services Clerical	Economic Analysis	\$28.5 \$46.5
	PG5 Marketing	Economic Analysis	\$40.5
9	_		
	Inflation Rates	Farancia Anglusia	1.02
1	1995	Economic Analysis	1.02
2	1996	Economic Analysis	1.03
	1997	Economic Analysis	
4 :	Composite 1995 thru 1997	L11*L12*L13	1.10
5		ļ	4.0000
6	Levelized Inflation Factor	Economic Analysis	1.0622
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BELLSOUTH TELECOMMUNICATIONS, INC. FPSC Docket No. 950696-TP AT&T's 1st Set of Interrogatories August 9, 1995
Item No. 3
Page 1 of 1

REQUEST: What is your most current estimate of the average

monthly long run incremental cost of providing a local

loop in Florida?

RESPONSE: The estimated average long run incremental monthly

cost for local loops in Florida is \$15.97.

RESPONSE PROVIDED BY: Steve Mitchell

Director - Economic Costs 3535 Colonnade Parkway Birmingham, Alabama 35243

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET
NO. 750984-TP EXHIBIT NO 12

COMPANY/
WITNESS: BS/Scheec
DATE: 74796

BELLSOUTH TELECOMMUNICATIONS, INC. FPSC Docket No. 950696-TP AT&T's 1st Set of Interrogatories August 9, 1995
Item No. 4
Page 1 of 1

REQUEST: Please explain in detail how the information provided in response to interrogatory No. 3 was developed.

RESPONSE: See the Florida Incremental 1994 Loop Is A Loop Cost Study provided in response to Production of Document

Request No. 1.

RESPONSE PROVIDED BY: Steve Mitchell
Director - Economic Costs
3535 Colonnade Parkway
Birmingham, Alabama 35243

BELLSOUTH TELECOMMUNICATIONS, INC. FPSC Docket No. 950696-TP AT&T's 1st Set of Interrogatories August 9, 1995
Item No. 9
Page 1 of 1

REQUEST:

What is your average Total Service Long Run Incremental Cost ("TSLRIC") of providing basic residential service in Florida? If a TSLRIC estimate is not available, please provide this information based upon available incremental cost studies.

RESPONSE:

BellSouth does not conduct total service long run incremental cost (TSLRIC) studies. BellSouth does not subscribe to the hypothetical construct of TSLRIC nor the building blocks approach that has been connected with TSLRIC studies. BellSouth has not studied residential loops specifically. Using the LIAL (loop-is-a-loop) studies, the incremental cost of providing basic residential service in Florida is \$18.73. The LIAL cost is developed from a random sample of loops serving all classes of service across the state. Due to the high percentage of residence access lines, the sample is heavily weighted toward residence lines.

RESPONSE PROVIDED BY: Lorraine Maddox
Manager
3535 Colonnade F

3535 Colonnade Parkway Birmingham, AL 35243

BELLSOUTH TELECOMMUNICATIONS, INC. FPSC Docket No. 950696-TP AT&T's 1st Set of Interrogatories August 9, 1995
Item No. 10
Page 1 of 1

REQUEST:

What is your average Total Service Long Run Incremental Cost ("TSLRIC") of providing basic business service in Florida? If a TSLRIC estimate is not available, please provide this information based upon available incremental cost studies.

RESPONSE:

BellSouth does not conduct total service long run incremental cost (TSLRIC) studies. BellSouth does not subscribe to the hypothetical construct of TSLRIC nor the building blocks approach that has been connected with TSLRIC studies. BellSouth has not studied business loops specifically. Using the LIAL (loop-is-a-loop) studies, the incremental cost of providing basic business service in Florida is \$18.63. The LIAL cost is developed from a random sample of loops serving all classes of service across the state. Due to the high percentage of residence access lines, the sample is heavily weighted toward residence lines.

RESPONSE PROVIDED BY: Lorraine Maddox
3535 Colonnade Parkway
Birmingham, AL 35243

BellSouth Telecommunications, Inc. FPSC Docket No. 950696-TP AT&T's 1st Set of Interrogatories August 9, 1995 Item No. 11 Page 1 of 1

Please provide the average monthly revenue that you REOUEST:

received per unit of service during 1994 for each of the services set forth in Interrogatory No. 1.

The average monthly access line revenue per unit of service for 1994 is as follows: RESPONSE:

Residence Business PBX Trunks ESSX Lines s 9.76 \$ 27.58 \$ 48.00 \$ 7.16 1994

RESPONSE PROVIDED BY: Tom Walden Manager

675 W. Peachtree St., N.E.

Atlanta, GA 30375

STATE OF GEORGIA
COUNTY OF FULTON

BEFORE ME, the undersigned authority, personally appeared Perry M. Eller, who being first duly sworn deposes and says:

That he occupies the position of Manager, Headquarters

Regulatory and is the person who has furnished answers to these interrogatories No. ____ through No. ____ and further says that said answers are true and correct to the best of his knowledge and belief.

WITNESS my hand and seal this 28 TM day of AUCUST, A.D., 1995.

Signature

Kixi missailiais

Notary Public

State of Georgia

My Commission Expires:

Notary Public, DeKalb County, Ga. My Commission Expires Feb. 24, 1996

BELLSOUTH TELECOMMUNICATIONS, INC.

**FLORIDA** 

ISSUED: March 20, 1995 BY: Joseph P. Lacher, President - FL Miami, Florida

**ACCESS SERVICE TARIFF** 

Second Revised Page 29 Cancels First Revised Page 29

EFFECTIVE: May 19, 1995

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## E7. DEDICATED ACCESS SERVICES

## E7.5 Rates and Charges (Cont'd)

## E7.5.3 Voice Grade Service 1

- A. Local Channel
  - 1. Per Point of Termination
    - a. Voice Grade
      - (1) Voice

			N	Ionthly Rate				
			Phase	Phase	Phase	Nonrecu First	rring Charge Additional	USOC
			L	II	Ш			
	(a)	Two-Wire	\$15.00	\$16.10	\$21.15	\$270.00	\$100.00	T6E2X
	<b>(b)</b>	Four-Wire	16.40	24.50	31.90	275.00	105.00	T6E4X
(2)	Data							
	(a)	Two-Wire	13.20	21.20	25.45	<b>295.</b> 00	120.00	T6E2X
	<b>(b)</b>	Four-Wire	16.20	26.20	31.65	300.00	125.00	T6E4X
(3)	Loop	Facilities not required ²						
	(a)	Two-Wire	1.60	2.50	2.95	135.00	71.00	EUC2N
	(h)	Four-Wire	1.60	1.50	2.95	135.00	71.00	EUC4N

Note 1: Phase I rates will be effective 1/16/91
Phase II rates will be effective 1/16/92

Phase III rates will be effective 1/16/93

For connections to Company Centrex CO-like switches and equipment considered to be Note 2:

customer premises.

FLORIDA PUBLIC SERVICE COMMISSION	ON
DOCKET OS OF SUMMISSING COMPANY OF COMPANY	13
WITNESS: BS Schee DATE: 14/36	

" 4/b/a SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY

. CASE No. 88, 627

<b>EXHIBIT</b>	NO.	

**DOCKET NO.:** 950984-TP

**WITNESS:** ROBERT SCHEYE

PARTY: BELLSOUTH

# **DESCRIPTION:**

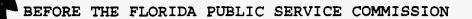
12/18/95 Deposition Transcript

STAFF'S 1ST SET OF INTERROGATORIES TO BELLSOUTH NOS. 1-6, 9-18

MFS-FL's 1st Set of Interrogatories to BellSouth Nos. 1-10, 12-26

**PROFFERING PARTY: STAFF** 

I.D. # RCS-1



44		
3	In Re: Resolution of petition to establish nondiscriminators	
4	rates, terms, and conditions in resale involving local exchange	
5	companies and alternative location	al )
6	exchange companies pursuant to Section 364.161, Florida State	utes )
7		· · · · · · · · · · · · · · · · · · ·
В	DEPOSITION OF:	ROBERT C. SCHEYE
9	TAKEN AT THE	
10	INSTANCE OF:	THE STAFF OF THE FLORIDA PUBLIC SERVICE COMMISSION
11	PLACE:	GERALD L. GUNTER BUILDING
12		ROOM 362 2540 SHUMARD OAK BOULEVARD TALLAHASSEE, FLORIDA
13	TIME:	COMMENCED AT 3:30 P.M.
14		CONCLUDED AT 4:20 P.M.
15	DATE:	DECEMBER 18, 1995
16	REPORTED BY:	NANCY S. METZKE, RPR, CCR C & N REPORTERS
17		POST OFFICE BOX 3093 TALLAHASSEE, FLORIDA 32315
18		INDEMINDUE, LEGITOR 32313
19		
20		
21		
22		EPORTERS
23	POST OFFIC	
24		FLORIDA 32315 85-5501
25		

1	APPEARANCES:
2	DONNA L. CANZANO, Senior Attorney, Florida Public Service Commission.
3 4	SCOTT EDMONDS, Senior Attorney, Florida Public Service Commission.
5	SUE WEISKE, ESQUIRE, Time Warner Communications, 160 Inverness Drive West, Englewood, Colorado 80112.
6 7	DOC HORTON, ESQUIRE, AND FLOYD R. SELF, ESQUIRE, LDDS World Comm., Messer, Caparello, Madsen, Goldman &
8	Metz, P.A., Post Office Box 1876, Tallahassee, Florida 32302.
9 10	RICHARD D. MELSON, ESQUIRE, MCImetro Access Transportation, Hopping, Green, Sams & Smith, Post Office Box 6526, Tallahassee, Florida 32314.
11	DOUG LACKEY, ESQUIRE, Southern Bell, 675 West Peachtree Street, Suite 4300, Atlanta, Georgia 30375.
12 13	,
14	ALSO PRESENT:
15	LANS CHASE, FPSC Staff.
16	MIKE RITH, FPSC Staff.
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2										PAGE NO.
3										
4	STIPULATION		•	•	•	•	•	•	•	4
5	ERRATA SHEET		•	•	•	•	•	•	•	33
6	CERTIFICATE OF DEPONENT		•	•	•	•	•	•	•	34
7	CERTIFICATE OF OATH									
8	CERTIFICATE OF REPORTER			•			•		•	35
9	. "	WITN	ESS	3						
10	ROBERT C. SCHEYE									
11	Examination by Ms. C	Canzan	٥.		•				•	5
12	Examination by Mr. M Examination by Ms. W	weiske Weiske	•	•	•			•	•	33
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STIPULATION

IT IS STIPULATED that this deposition was taken pursuant to notice in accordance with the applicable Florida Rules of Civil Procedure; that objections, except as to the form of the question, are reserved until hearing in this cause; and that reading and signing was not waived.

IT IS ALSO STIPULATED that any off-the-record conversations are with the consent of the deponent.

PROCEEDINGS 1 MS. CANZANO: Doug, I'm sorry, I wasn't 2 listening. 3 MR. LACKEY: I was just babbling. 4 MS. CANZANO: Could you have, is your notary 5 present? 6 MR. LACKEY: We'll get her back. 7 MS. CANZANO: Yes, because this is a separate 8 docket, and we need to make sure the records are 9 10 separate. 11 MS. MISSAILIDIS: You want me to repeat everything again, who I am? 12 MR. LACKEY: Yeah, it's a different record. 13 14 MS. MISSAILIDIS: Okay. This is Kiki, K-i-k-i, Missailidis. I'll spell again, 15 M-i-s-s-a-i-l-i-d-i-s. Address is 675 West Peachtree 16 17 Street, Room 4300, Atlanta, Georgia, 30375. MR. LACKEY: All right. Would you now swear 18 Mr. Scheye, please? 19 MS. MISSAILIDIS: Yes. Mr. Scheye, do you swear 20 that the testimony you are about to give is the truth, 21 the whole truth and nothing but the truth, so help you 22 23 God? THE WITNESS: Yes. 24

MS. CANZANO: Should we also take appearances?

MR. LACKEY: Sure. This is Doug Lackey appearing 1 on behalf of BellSouth Telecommunications, Inc. I 2 3 have with me the deponent, Mr. Scheye. 4 MS. CANZANO: And everyone else? 5 MR. MELSON: Richard Melson appearing on behalf 6 of MCImetro Access Transmission Services. 7 MR. HORTON: This is Doc Horton and Floyd Self on behalf of LDDS World Comm. 8 9 MS. CANZANO: And I'm Donna Canzano, and with me is Scott Edmonds on behalf of the commission staff. 10 11 12 Whereupon, ROBERT C. SCHEYE 13 was called as a witness by the Commission Staff and, after 14 being first duly sworn, was examined and testified as 15 follows: 16 EXAMINATION 17 BY MS. CANZANO: 18 Good afternoon. Please state your name and 19 Q business address for the record, please. 20 Robert C. Scheye, 675 West Peachtree Street, 21 A Atlanta, Georgia, 30375. 22 And did you file testimony in the unbundling and 23 24 resale dockets, 950984?

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Yes.

And do you have any exhibits attached to those 0 1 testimonies? 2 I believe so. 3 Α And do you agree to the usual stipulations? Α Yes. 5 Do you know what they are? 6 MR. LACKEY: THE WITNESS: 7 No. MR. LACKEY: Just a moment I'll be back with you. 8 MS. CANZANO: Okay. 9 10 MR. LACKEY: We're back, Mr. Scheye agrees to the 11 stipulations. That's wonderful. 12 MS. CANZANO: BY MS. CANZANO: 13 14 0 Okay. Hi, Mr. Scheye. 15 Α How are you? 16 0 Please explain and define your concept of 17 unbundling. 18 Unbundling is defined as providing capabilities, for an ALEC in this case, that are part of BellSouth's 19 20 operations or networks that an ALEC can purchase on a stand-alone basis. 21 In your direct testimony in the MFS petition you 22 23 state that BellSouth does not plan to offer sub loop unbundling, loop concentration or connection or unbundled 24

loops to unbundled ports; is that correct?

A Yes, that is correct.

Q Why is that appropriate, especially since these were specifically requested by MFS and MCI?

A Basically as stated in testimony, loop concentration is not unbundling, it's a stand-alone piece of hardware that currently BellSouth does not have and it would have to purchase and install someplace. So it's not unbundling of capability that already exists.

In terms of what we call sub loop, there has really been no real request for the service. As best we can tell, it provides some very difficult administrative and operational situations that if we were to provide it, we right now don't know how we would take care of.

And in the third instance, the loop and port basically, providing those services provides the identical functionality of a resold basic local exchange service, and to provide it in that fashion would be to invite tariff arbitrage and potential discrimination.

- Q Do you mean to say that BellSouth does not have any loop concentration devices in its network?
- A No, I didn't say that. I said what the parties have requested would require new hardware that is currently not in BellSouth's network.
- Q In your direct testimony in the MFS petition you state that BellSouth's special access local channels should

be used as voice grade local loops; is that correct?

A Correct.

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- Q Why is this appropriate?
- A Because voice grade special access line provides the functional equivalent to a local loop, and to provide it under any other terms and conditions, again, would be to invite tariff arbitrage or potential discrimination.
- Q MFS witness, Mr. Devine, states that special access lines are not appropriate for local loops because they are more than what MFS is requesting because they have additional condition and configuration of the circuits and, therefore, require a longer installation time as compared to the existing local loops. Do you agree or disagree with that?
- A I disagree.
- Q And why is that?
- A Because they are a functional equivalent to a local loop, can be provided under the same installation time frames.
- 20 Q How?
- 21 A How?
- 22 Q Uh-huh.
  - A You place an order and we send an installer out.

    It really doesn't take a whole lot -- it's not a whole lot different. It's a pair of wires from our office to some

location.

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- Q Then why is it a separate tariffed offering?
- A Because special access provides not only unbundled loops but a large number of other things that carriers currently purchase or end users purchase.
- Q Can you be more specific? What are you referring to?
- A Well, special access provides not only voice grade, but high capacity digital services. It provides multiplexing capability. It provides transport capability, and it is available to carriers and end users alike today.
  - Q Then why use that for the local loop then?
- A Because the portion that we're talking about is identical to what one would require if one asked for a local loop. It's a pair of wires from the BellSouth office to an end user's premises, so it is a local loop. It's a portion of the overall special access service.
  - Q We might come back to that subject.
- 19 A Okay.
- Q Aren't special access lines of a higher quality than R-1 service?
- A Not necessarily, no.
  - Q Why not?
  - A Because they don't need to be.
- Q Why don't they need to be?

A Because they are for the same kind of transmission, a voice path from a location to an office, so they don't need to be any different.

Q AT&T's witness, Mr. Gadell (phonetics), states in his testimony that AT&T has identified 11 components for basic network functions which may be effectively and usefully unbundled. Are you familiar with this testimony?

A Yes.

Q Do you agree with that or not?

A I think if I recall, I don't have it in front of me, that Mr. Gadell (phonetics) seemed to have sort of a mish-mash of some interconnection capability and some unbundling capability sort of thrown in there together, but I think in general where we could determine what Mr. Gadell (phonetics) was asking for we would be in agreement. There were several items mentioned that seemed to be generic statements about access to data bases, et cetera, that it's not clear what he was looking for, but -- so I can't answer to that specific, but in general, if you distinguish between unbundling and interconnection, those capabilities that he describes in general would be made available.

Q In your direct testimony in the MFS petition, you state that BellSouth's initial focus has been to develop unbundled capabilities essential to offer basic exchange services; is that correct?

A Yes.

Q Is it your understanding that the -- doesn't the statute state that upon request each LEC shall unbundle all of its network features, functions and capabilities, including access to signaling data bases, systems and routing processes and offer them to another telecommunications provider requesting such features, functions or capabilities for resale to the extent technically and economically feasible?

A Yes.

Q So how can BellSouth limit its unbundling to basic exchange type services if other technically and economically feasible network features, functions and capabilities have been requested?

A As far as I know there has nothing been requested that meets the definition that you explained that we're not offering or plan to offer.

- Q Or plan to offer?
- A Yes, because we don't offer any of those today.
- Q It doesn't say currently tariffed services, does it?

A No, we don't have ALECs in business yet, so we haven't filed the tariffs for those items. When we do file the tariffs for those items and as they are outlined in the stipulation and agreement that we have with five parties,

we have met the intent that you've described. If the commission orders it, then would you 2 tariff those services? 3 I don't know which services you are talking 4 about. The unbundled services requested? 0 I believe we plan to offer all the unbundled Α 7 services that are requested, for example, signaling. We offer -- we will plan to offer on an unbundled basis signaling just as you stated in the legislation. 10 Are you going to unbundled ISDN loops? 11 If we can do it on a technically feasible basis, 12 yes. We still have that under study. 13 0 Are you familiar with the agreement between 14 BellSouth and FCTA and others? 15 16 Α Yes. Does the agreement state that the unbundled local 17 loop will be BellSouth's tariff special access rate? 18 I believe it does, yes. 19 Α To date who has signed the agreement? 20 Q Besides BellSouth, Florida Cable Association, 21 Continental Cable, Time Warner, TCG and Intermedia. 22 Are there a number of cable companies that have 23 Q 24 signed the agreement?

Yes, most of which -- Florida Cable represents a

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large number of cable companies. Time Warner is a cable 1 company. I believe Continental Cable is a cable company. 2 0 And what about ICI? 3 I don't believe they are a cable company. Α 5 For those that are non-cable entities, are they planning -- to your knowledge are they planning to offer 7 residential service? 8 I have not asked them that. Do cable companies have facilities to residential 9 end users? 10 Α I think you would have to ask them. I don't know 11 what they have. I assume they do. 12 13 0 And that is based on -- What is your assumption based on? 14 That they currently provide service to 15 residential so I assume they have facilities to 16 residential. 17 In your opinion would cable companies have less 18 of a need to purchase unbundled local loops, special access 19 from BellSouth for residential service? 20 I think that is up to the cable company. 21 can purchase the same thing anybody else can once it's 22 unbundled. 23 But in your opinion would they have less of a 24 need to purchase? 25

Α No. 1 Why do you say that? Q 2 Because I don't know that they do have a lesser Α 3 They have not told me, nor have I pursued with them or any other party what their particular need is. 5 Did you just reply to one of my earlier questions 6 that you think they already run cable to the house? 7 Yes, but I don't know if they will use that cable 8 Α for their telecommunications services. I haven't asked 9 10 them that. In your opinion would non-cable telecommunication 11 0 12 companies such as MFS or MCImetro have a greater need for local loop facilities? 13 I don't know that. Α 14 0 What is your probability of a guess? 15 50/50. 16 Α Do you think that this might be -- excuse me, for 17 whoever is talking in the background. 18 Α It's not here. 19 I know it's not. There are a number of entities 20 connected in. 21 MR. LACKEY: Donna, it sounds like a paging 22 23 system in the background. Let's just give them a

second and see if it goes away.

Okay. I'll continue because we are almost

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through. Do you think that this is a significant reason why such entities like non-cable telecommunications companies have not signed the agreement?

A A non-cable company has signed the agreement, Intermedia.

- Q What about others like MFS and MCImetro?
- A No, they have not signed it.
  - Q Why do you think they haven't signed it?
- A I think that question would be better addressed to them.
  - Q Have you negotiated with them?
- 12 A Yes.

- Q What are some of the areas of contention?

  MR. LACKEY: Wait a minute. Stop for a minute please, Donna.
  - MS. CANZANO: Okay.
- MR. LACKEY: I have a small problem here. To the extent that these negotiations have been settlement discussions, I don't know that it's proper or permissible. Certainly they wouldn't be admissible evidence to discuss them at this point.
- MS. CANZANO: Can we discuss areas of contention?

  MR. LACKEY: Let me think about that just for a

  minute. And I'm not trying to keep anything from you,

  I'm just -- you know, we been having negotiations with

people, and what goes on in those negotiations is supposed to be inadmissible and not something we are supposed to use against each other. Let me just -- I'm going to go off line for a moment and talk to Mr. Scheye and see how we can get the information you want without running afoul with that. I'll be right

MS. CANZANO: Okay.

back with you.

MR. LACKEY: Mr. Scheye has just pointed out an obvious. We have an MCImetro attorney on line with us. If MCImetro has no objection to us sharing Mr. Scheye's views of the -- or the answer to the question vis a vis, or with respect to MCI, we have no such objection.

MR. MELSON: I don't think we have a problem, Doug.

MR. LACKEY: Okay. Well, with that then, I'll ask Mr. Scheye if he can address specifically the issues they had with MCImetro as he remembers them only, not with regard to the other carriers not present.

### BY MS. CANZANO:

- Q Okay. Just with MCImetro, and really what I'm after is just the areas of contention if it's possible.
  - A Because we have not signed an agreement,

obviously, I would have to say that in one form or another universal service, a local interconnection, number portability rates and a local loop are probably all still in question.

Q Now I don't know how much detail you feel comfortable saying, but with regards to unbundling specifically what is a problem?

A Again, assuming that the attorney for MCI doesn't mind me answering.

- Q Right, and this is in your opinion.
- A Right.

THE WITNESS: That acceptable?

MR. MELSON: Yes, go ahead.

A Okay. We have spent some time going over some of the details of some of the various services. Certainly the question of local loop and concentration are still at issue. I won't, if they are in contention, we haven't really discussed them in enough detail to know at this point, at least in my opinion, whether we could reach agreement on an overall package or not.

Q Of the parties that have signed the agreement, have any of them requested unbundled loops?

A Again, there has been no indication to me about any specific services that they would order or not order. To the extent that unbundled loops have been included in

the list of items described, certainly it is conceivable 1 that some or all those parties could end up purchasing an unbundled loop. 3 You're saying the parties that have signed the 4 agreement? 5 I think that was your question, wasn't it? 6 A I just wanted to check and make sure. 7 Q Right. MS. CANZANO: Well, staff has no further 8 9 questions. THE WITNESS: Thank you. 10 11 MR. LACKEY: Rick? MR. MELSON: Yeah, I've just got a couple. 12 13 EXAMINATION BY MR. MELSON: 14 One of these I asked you before, but I'll ask you Q 15 again because it's a different deposition. Were you 16 present during the deposition of Nina Cornell earlier 17 today? 18 I was in and out. 19 All right. Has Southern Bell done any studies of Q 20 the cost of local loops? 21 Not that I'm aware of. A 22 Would you be aware of them if they had been done? 23 Q Not necessarily. 24 Α

So in developing your proposal that unbundled

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loops be priced at special access, you did not refer to any cost studies that may or may not have been done by Southern Bell?

A No, since I'm not aware of which ones may be available, that's correct.

Q All right. Could you tell me what you mean by the term "loop concentration"?

A What I mean by it, it has been described to me as -- maybe it's simplest to do an example, that if 96 individual loops were brought into a piece of hardware, we'll call a concentrator, that those 96 loops could be then, quote, concentrated and only 48 equivalent pairs would come out the other side. So we'd take 96 and break it down into, say, 48 or some lower number.

Q And to your understanding how does loop concentration differ from multiplexing?

A In multiplexing, as I understand it, and please recognize that I'm not a technical person, for example in a multiplex case we would take a DS-1 service that has 24 equivalent voice grade capabilities and break it into that 24 voice grade capabilities, not a different number.

- Q Does BellSouth use loop concentration in its network today?
  - A Yes. It's my understanding we do, yes.
  - Q And where in your network is that functionality

used?

A It's somewhere in between the central office and obviously the customer's premises.

Q And is it my understanding that BellSouth does not intend to offer loop concentration as an unbundled function to ALECs?

A It is BellSouth's position that the type of concentration requested by parties in this proceeding is not unbundling by that definition because in order to provide it, BellSouth would have to purchase different types of hardware than we currently use, install that hardware somewhere in our central office to dedicate that hardware to the particular carrier in question. BellSouth has not said that it will not provide the service, it said it was not included under its definition of unbundling.

Q Would you permit an ALEC to place loop concentration equipment in collocation space?

A Currently the rules on collocation do not permit the collocating of a switch or a switch equivalent. A piece of concentration hardware like we are describing technically meets the definition of a switch. So in order for BellSouth to do that, we would have to consider modifying those definitions.

Q And do you intend to seek those modifications, or do you intend to oppose them?

A I believe that the safest way or the clearest way to say that is, and it's similar to the intermediary function we were talking about in the other proceeding, BellSouth is looking for a comprehensive package that has logical financial and technical arrangements in it, to the extent that that kind of accord can be reached with carriers and BellSouth has the incentive to try to meet any and all demands of those carriers in such a fashion that is proper for both them and us. Providing switching capability as collocation, introduces some technical issues that currently have not been fully explored and would have to be explored before I could answer that specifically.

Q So the answer is you don't have a position at this time?

A The current position is it's currently not allowed and we would have to reconsider what the current policy on collocation would be in order for us to allow that and we have not made that determination.

Q In your testimony you talk about handling future unbundling requests using the open network architecture or ONA model; is that correct?

A Yes, sir.

Q Has Southern Bell to date applied the ONA model to unbundle network capabilities in Florida?

A I'm not -- because I'm not responsible for ONA, I

can't answer that question for you. I don't know. 1 2 Q Give me just a minute here. MR. MELSON: I think that's all I've got right 3 now. Thank you. 4 5 MR. LACKEY: Thank you, Rick. Who is next, anybody? 6 MR. HORTON: Doug, this is Doc. I don't have any 7 8 questions. 9 MR. LACKEY: Okay, Doc. MS. WEISKE: This is Sue Weiske of Time Warner, I 10 have a couple. 11 MR. LACKEY: All right. 12 **EXAMINATION** 13 BY MS. WEISKE: 14 Mr. Scheye, do you believe that Time Warner 15 (inaudible) as to the pricing of a loop at a special access 16 rate says anything as to imputation? 17 18 A I'm sorry, ma'am, could you repeat it? Something sort of did crackling in between your question. 19 Sure. Do you (inaudible) --0 20 21 THE COURT REPORTER: Could you start your question again? 22 -- the stipulation that was signed between Time 23 Warner and Bellsouth addresses whether a special access 24 rate for an unbundled loop has to be imputed or not? 25

MS. CANZANO: Excuse me, could you repeat the 1 question because the court reporter didn't get it? 2 0 I'll try it for the third time. 3 Okay. 4 A 5 Do you believe that the stipulation agreed to between BellSouth and Time Warner as to pricing an unbundled loop at the special access rates addresses the 7 issue of imputation? 8 You broke up again. MR. LACKEY: Wait a minute. This is Doug You've broken up again, but as we understand 11 Lackev. the question, you're asking whether the stipulation 12 that Time Warner joined in with BellSouth regarding, 13 contains anything regarding the imputation of the special access line rate? 15 MS. WEISKE: That's correct. 16 MR. LACKEY: They are looking at it right now. 17 Just a moment, please. There is reference to it, and I don't recall A precisely what it says. 20 MR. LACKEY: Just a moment, let us look at it. You can probably give me the reference quicker 22

I don't have the stipulation.

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than me looking it up.

BY MS. WEISKE:

I don't have a

final of it in front of me. I was just asking the
question.
 A Okay. All right.

MR. LACKEY: All right. Well, just a minute then, and we'll look at it.

MS. WEISKE: Thank you. If you want I can try this a different way.

MR. LACKEY: We are looking --

A I'm just trying to find it. It's in here someplace, and I've just got to remember where.

MR. LACKEY: Just give us a minute to look at it. We might at well find it directly. We'll be right back with you.

MR. LACKEY: We're not sure we fully have the right agreement right here in front of us. Why don't you try asking, getting at it another way, and let's see if we can resolve it. And I'll try to find somebody who can locate it for us in the mean while.

MS. WEISKE: Okay.

## BY MS. WEISKE:

Q If it is true that the stipulation is silent to the imputation of the special access rate, what is BellSouth's intention as to whether they will impute that rate into their local exchange rate?

A It's not silent to it. It speaks to it. We are

just trying to find it.

Q So it's your belief that the stipulation has a particular approach as to imputation of the special access rate?

A Yes.

Q Well, then you are going to have to find the cite for me.

A That's what we're looking for.

MR. LACKEY: In that case you all just hold on, and we'll be back as soon as we can find the right copy.

We have found the right agreement. We have so many of them we were confused, but we are looking through it right now, and as soon as we find it we'll be back.

MS. WEISKE: Thank you.

MR. LACKEY: All right. We are back with you.

A On Page 11 of the agreement it says:

"The parties agree that the issue of imputation of LEC, unbundled service prices into its retail rates is not addressed by the stipulation of the agreement and that the ALECs reserve their right to further address imputation

 for these services, including unbundled local loops."

MS. CANZANO: Excuse me, is that Mr. Scheye speaking?

A Yes, ma'am, I'm sorry. Yes, it was me speaking. BY MS. WEISKE:

Q Is it fair to say then that Time Warner may -- as to imputation of the special access rate was not determined by the stipulation?

A Yes, ma'am.

Q Can you -- Are you the right witness -- maybe I should start the question that way -- to discuss with me what BellSouth does intend to do about imputation of the special access rate?

A I believe what we have said is that under an imputation standard if it were to be applied to BellSouth, what would be determined is that BellSouth is in fact meeting its public policy objectives as they have been ordered by the Commission, so it's probably not going to be overly revealing to anyone. And I believe I stated that in testimony in one of these proceedings, and I don't recall which one.

Q So I guess what I'm getting at is the specific imputation method that BellSouth intends to use with this process, is that a question I should be asking of you or of

## Witness Banerjee?

- A I think you should ask me, and I would say that we have not determined that yet.
- Q So you don't yet know for example if you view a special access loop as an essential feature, function or service?
- A I mean we assume it to be an essential feature from the definition of unbundling and, therefore, we plan to offer it; but I don't know that that is getting to your point about how we would plan to impute it.
- Q But you would view it as essential in terms of how you would apply imputation?
  - A I'm not sure what that means.
    - Q Would you view it as a bottleneck monopoly input?
- 15 A Absolutely not.
- Q Using the term "essential" when you say you view it as essential?
  - A I don't assume it to be a monopoly bottleneck facility. If that is your definition of essential, then your answer would be no.
  - Q Well, what might your definition of essential be if you can answer the question?
  - A I was referring to it from the standpoint of essential from -- a carrier may request of BellSouth as part of unbundling, so I was misconstruing your definition.

020

And I understand your answer now. 0 2 If the Commission would determine that an 3 unbundled loop is an essential service as I have defined it, do you have a specific response then as to how you 5 would intend to apply imputation? No, I'm sure it would have to be in response to 6 7 whatever the Commission ordered. 8 0 You couldn't tell me whether you'd be imputing the rate, for example, that would be charged to a new entrant versus imputing the cost of the total service 10 11 long-run incremental charge? 12 No, I can't answer that because I don't know how we would do it. As I said, I think it would simply reveal 13 14 that we have met our public policy requirements regardless 15 of which way we did it. Q Do you believe that the special access rate that 16 is in place today for an unbundled loop is above the 17 18 current local exchange rate for residential service? I think that's comparing an apple and an orange. 19 20 Do you know what the special access rate is today for an unbundled loop? 21 22 I believe in Florida for a voice grade channel it's about 21 dollars. 23 24 0 Do you know what the current local exchange

residential rates are approximately?

The rates in Florida as any other place include a 1 2 rate for basic service. They include rates for long distance, for ancillary features and function, touch tone, 3 et cetera. I think the aggregate of that number is the 5 average rate. 6 Is that average rate below the rate you just gave 7 me for a special access loop? 8 Α I would doubt it. Do you know if I'm a basic exchange residential 9 10 rate payer today in Florida without purchasing call 11 waiting, et cetera, what my current local exchange rate it? I believe it's about nine dollars. 12 Α 13 And the same question, if I'm a business user, do 14 you know what my rate is? 15 I believe it's about 30 dollars. In both cases Α 16 you have to add the subscriber line charge, the FCC subscriber line charge to those numbers. 17 18 0 Of 3.50? 3.50 and six dollars, yes. 19 20 Okay. And I apologize, finally what did you say O 21 earlier the special access rate for unbundled loop was, about 16 dollars? 22 I think it's 21. 23 A Is it fair to say that if you were going to offer 24

local exchange service using a special access unbundled

() 3 3

1 loop you would need more than just the loop to offer service? 2 3 Α Yes.

Can you tell me what those other elements might be that you would need to offer the service?

- Α Well, you certainly need to be able to switch it.
- So you need some switching?
- Α Yes. Depending on how you plan to offer the service, you might want some directory capability. might want 911 capability, signaling capability, those types of things.
  - Would you want billing and collection?
- Want billing and collection, I would assume if Α you want to bill your customer, yes.
- 15 0 Do you want operator services?
- 16 Α Possibly.

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- 0 Do you think it would be fair to say that if you were purchasing all those elements from BellSouth today at current rates that you would probably be above the local exchange rate for residential users on average?
- Above the local -- Again, what are we going to call the -- I don't know the local exchange rate you're If you are talking about nine dollars, yes, it's above nine dollars, but that's not the amount of revenue we collect from our residential customers.

1	Q What do you think the amount of revenue, if you
2	know, that you collect from an average residential user
3	might be?
4	A I honestly do not know what it is. I'm sure
5	it's It's well above nine dollars.
6	Q Do you think it's well above 21 dollars?
7	A Conceivably.
8	Q You don't have anything that demonstrates that
9	one way or the other?
10	A No, I don't.
11	MS. WEISKE: That's all I have. Thank you.
12	THE WITNESS: Thank you.
13	MR. LACKEY: Is there anybody we've missed or
١4	any additional questions anybody would like to ask of
15	Mr. Scheye?
16	(NO RESPONSE)
L7	(WHEREUPON, THE DEPOSITION WAS CONCLUDED)
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## CERTIFICATE OF DEPONENT

This is to certify that I, ROBERT C. SCHEYE, have read the foregoing transcription of my testimony, Page 1 through 32, given on December 18, 1995 in Docket Number 950984, and find the same to be true and correct, with the exceptions, and/or corrections, if any, as shown on the errata sheet attached hereto.

ROBERT C. SCHEYE

Sworn to and subscribed before me this day of ______, 19_____

NOTARY PUBLIC State of

State of

11 My Commission Expires:

00.

1	STATE OF FLORIDA )
2	COUNTY OF LEON )
3	
4	I, NANCY S. METZKE, RPR, CCR, Certified Shorthand Reporter and Registered Professional Reporter, DO HEREBY CERTIFY that I was authorized to and
5	did stenographically report the foregoing deposition of
6	Robert C. Scheye. I FURTHER CERTIFY that this transcript,
7	
8	I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel connected with the action,
9	nor am I financially interested in the action.  DATED this 22nd day of December, 1995.
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BELLSOUTH Telecommunications, Inc.
Docket No. 950984-TP
Staff's 1st Set of Interrogatories
December 12, 1995
Item No. 1
Page: 1 of 1

REQUEST: Please provide a detailed outline of your proposed unbundling/resale agreements with MFS-FL and MCImetro.

- a. Have the parties agreed on any specific items: If so, what items?
- b. What specific items remain at issue?
- c. Of the items that remain at issue, which would BellSouth characterize as contentious?

RESPONSE: BellSouth currently does not have an agreement with either MFS or MCI metro. An agreement, however, has been signed with several other parties in Florida.

- a. The parties continue to work toward agreement on as many issues as possible.
- b. Until an agreement is signed the parties recognize that no item is finalized. Therefore, all items are at issue.
- c. BellSouth would not characterize any specific issue as contentious.
  All issues are open for discussion.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management 11A15 SBC 675 W. Peachtree St., N. E. Atlanta, GA 30375

BELLSOUTH Telecommunications, Inc. Docket No. 950984-TP Staff's 1st Set of Interrogatories December 12, 1995 Item No. 2 Page 1 of 1

REQUEST:

For the cost information provided in response to Staff's Production of Document No. 4, please specify the costing methodology used for each unbundled element.

RESPONSE:

BellSouth developed costs for the unbundled exchange loop and unbundled terminations using long run incremental cost methodology.

INFORMATION PROVIDED BY: Reg Starks

Director

675 W. Peachtree Street Atlanta, Georgia 30375 BELLSOUTH Telecommunications, Inc. Docket No. 950984-TP Staff's 1st Set of Interrogatories December 12, 1995 Item No. 3 Page 1 of 1

REQUEST:

For the cost information provided in response to Staff's Production of Document No. 5, please specify the costing methodology used for each unbundled element.

RESPONSE:

BellSouth developed costs for the unbundled exchange loop and unbundled terminations using long run incremental cost

methodology.

INFORMATION PROVIDED BY: Reg Starks

Director

675 W. Peachtree Street Atlanta, Georgia 30375

BELLSOUTH Telecommunications, Inc..
Docket No. 950984-TP
Staff's 1st Set of Interrogatories
December 12, 1995
Item No. 4
Page: 1 of 1

REQUEST: If you were able to negotiate an unbundling and resale arrangement with MFS-FL

and MCImetro, how soon would you be able to provide the service to MFS-FL

and MCImetro?

RESPONSE: While this may depend on the specific item in question, BellSouth believes that

it could provide these capabilities within the first quarter of 1996.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management

11A15 SBC

675 W. Peachtree ST., N.E.

BELLSOUTH Telecommunications, Inc. Docket No. 950984-TP Staff's 1st Set of Interrogatories December 12, 1995 Item No. 5 Page: 1 of 1

REQUEST: Do you think the alternative local exchange companies, MFS-FL and MCImetro. are being unreasonable in their negotiations? If so, why? Please be specific and identify any documentation supporting your claims.

RESPONSE: BellSouth has reached agreements with several ALECs who appear to be similarly situated as MFS and MCI. Therefore, BellSouth believes that these two carriers could also agree.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management

11A15 SBC 675 W. Peachtree St., N.E. Atlanta, GA 30375



BELLSOUTH Telecommunications, Inc.
Docket No. 950984-TP
Staff's 1st Set of Interrogatories
December 12, 1995
Item No. 6
Page: 1 of 1

REQUEST: Does BellSouth have any unbundling and/or resale arrangements with any

alternative access vendor or alternative local exchange company or equivalent

entity in other jurisdictions?

RESPONSE: No.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management

11A15 SBC

675 W. Peachtree St., N.E.

BELLSOUTH Telecommunications, Inc. Docket No. 950984-TP Staff's 1st Set of Interrogatories December 12, 1995 Item No. 9 Page: 1 of 1

REQUEST: What specific elements of BellSouth's network should be made available

to MFS-FL and MCImetro on an unbundled basis?

RESPONSE: BellSouth believes that the same network elements made available to the

Florida Cable Telecommunications Association, Inc. in the attached Stipulation

and Agreement should also be made available to MFS-FL and MCImetro.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management

11A15 SBC

675 W. Peachtree St., N.E.

BELLSOUTH Telecommunications, Inc.
Docket No. 950984-TP
Staff's 1st Set of Interrogatories
December 12, 1995
Item No. 10
Page: 1 of 1

REQUEST: Please provide diagrams illustrating the various unbundled network elements

identified in response to Staff's Interrogatory No. 9.

RESPONSE: It is not clear what type of diagrams can describe the unbundled features.

The description included in the Stipulation and Agreement attached to Item No.

9 should be adequate to explain these capabilities.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management

11A15 SBC

675 W. Peachtree St., N.E.

BELLSOUTH Telecommunications, Inc. Docket No. 950984-TP Staff's 1st Set of Interrogatories December 12, 1995 Item No. 11 Page: 1 of 1

REQUEST:

What are the appropriate technical arrangements for the provision of each unbundled element identified in the response to Staff's Interrogatory No. 9?

RESPONSE: The descriptions provided in the Stipulation and Agreement attached to Item No. 9 describe these technical arrangements. BellSouth recognizes that there will be additional operational issues that will need to be worked out between the parties in addition to those stated in the Stipulation. With this in mind, BellSouth commits to work cooperatively with the ALECs in order to resolve issues as they arise.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management 11A15 SBC 675 W. Peachtree St., N.E. Atlanta, GA 30375

BELLSOUTH Telecommunications, Inc.
Docket No. 950984-TP
Staff's 1st Set of Interrogatories
December 12, 1995
Item No. 12
Page: 1 of 1

REQUEST: What are the appropriate financial arrangements for each unbundled element

identified in the response to Staff's Interrogatory No. 9?

RESPONSE: To avoid tariff arbitrage and potential discrimination, these features should be

provided at current tariff rates where those services already exist. Where they do not, the rates must cover the appropriate costs and include a

reasonable contribution.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management

11A15 SBC

675 W. Peachtree St., N.E.

BELLSOUTH Telecommunications, Inc. Docket No. 950984-TP Staff's 1st Set of Interrogatories December 12, 1995 Item No. 13 Page: 1 of 1

REQUEST: For each requested unbundled network element, please provide detailed examples of the pricing methodology for these elements as discussed in Timothy Devine's direct testimony.

RESPONSE: As stated in the response to Item No. 12, BellSouth believes in using existing tariff rates for those services or features which already have an equivalent tariffed service. For example, for the unbundled port, BellSouth proposes to use the existing usage rate for Shared Tenant Service (General Subscriber Service Tariff Section A23). For the monthly rate element for the PBX port, BellSouth proposes a rate set at the existing weighted average NAR rate in Sections A3 or the General Subscriber Service Tariff.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management 11A15 SBC

> 675 W. Peachtree St., N.E. Atlanta GA 30375

BELLSOUTH Telecommunications, Inc.
Docket No. 950984-TP
Staff's 1st Set of Interrogatories
December 12, 1995
Item No. 14
Page: 1 of 1

REQUEST: Please explain why current local exchange company tariffed services, such

as special access or private line loops, are sufficient for ALECs to provide

local exchange service.

RESPONSE: The existing Special Access tariff provides a functionally equivalent

unbundled local loop. To provide the same service at a different price would

lead to potential tariff arbitrage and/or discrimination.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management

11A15 SBC

· 675 W. Peachtree St., N.E.

BELLSOUTH Telecommunications, Inc.
Docket No. 950984-TP
Staff's 1st Set of Interrogatories
December 12, 1995
Item No. 15
Page: 1 of 1

REQUEST: What network features, functions, and capabilities, that are not currently

tariffed, does BellSouth intend to offer for resale?

RESPONSE: In response to Item 9, BellSouth has described the features it anticipates offering

to ALECs. Because several ALECs have agreed to these items, it would appear that these should meet the needs, at least initially, of all ALECs. BellSouth also proposes using an ONA type process to evaluate additional

requests for unbundled features.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management

11A15 SBC

675 W. Peachtree St., N.E.

BELLSOUTH Telecommunications, Inc. Docket NO. 950984-TP Staff's 1st Set of Interrogatories December 12, 1995 Item No. 16 Page: 1 of 1

REQUEST:

Does BellSouth consider Alternative Local Exchange Carriers to be classified as co-carriers as addressed in Timothy Devine's testimony? Please explain your response.

RESPONSE: BellSouth considers these carriers as alternative local exchange carriers. The term co-carrier has typically been used to describe some historical arrangements that apply to non-competing carriers who operate only in unique franchised areas, and who have Universal Service and Carrier of Last Resort responsibilities.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management

11A15 SBC

675 W. Peachtree St., N.E. Atlanta, GA 30375

BELLSOUTH Telecommunications, Inc.
Docket No. 950984-TP
Staff's 1st Set of Interrogatories
December 12, 1995
Item No. 17
Page: 1 of 1

REQUEST: Does BellSouth currently maintain tariffs with the Florida Public Service

Commission that contain use and user restrictions?

RESPONSE: Yes.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management

11A15 SBC

675 W. Peachtree St., N.E.

BELLSOUTH Telecommunications, Inc.
Docket No. 950984-TP
Staff's 1st Set of Interrogatories
December 12, 1995
Item No. 18
Page: 1 of 1

REQUEST: Please refer to Robert Scheye's direct testimony, Pages 15, lines 3 - 24.

- a) Explain in detail why loop concentration is not a current capability of BellSouth's network.
- b) Explain why BellSouth would have to purchase additional hardware to offer loop concentration as a service.
- c) Explain in detail why "loop concentration does not meet the criteria for network unbundling contemplated under Chapter 364 of the Florida Statutes".
- RESPONSE: a) To provide loop concentration for each individual ALEC, BellSouth needs to purchase new equipment and place it at an ALEC specified central office. The new concentration equipment is not part of BellSouth's current network.
  - b) See response above. In addition, new hardware would be needed because the unbundled loops provided to each ALEC end user are dedicated to a particular ALEC. Consequently, each ALEC will decide how and where it wants its loops concentrated and transported. As a result, the concentration equipment will be dedicated to each particular ALEC desiring the service.
  - c) Because, this capability cannot be provided to an ALEC through existing BellSouth network functionalities.

INFORMATION PROVIDED BY: Robert Scheye, Director - Strategic Management 11A15 SBC 675 W. Peachtree St., N. E.

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 1 Page: 1 of 1

REQUEST: Will the unbundling proposal described by BellSouth (Scheye Direct Testimony) permit MFS-FL to provide ISDN services over loops and ports provided by BellSouth?

RESPONSE: The switch ports described by the BellSouth proposal will not permit MFS-FL to provide ISDN. MFS-FL will be able to provide ISDN services on a circuit by circuit basis at the Main Distributing Frame (MDF), with the same opportunity and limitations that BellSouth faces regarding compatible facilities.

INFORMATION PROVIDED BY: Robert Scheye
Director
BellSouth Telecommunications, Inc.
675 West Peachtree Street, NE
Atlanta, GA 30375

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 2(a)(b) Page: 1 of 1

3. ;

REQUEST: What percentage of BellSouth business customers require ISDN service:

- a. by percentage of the number of BellSouth business customers?
- b. by percentage of the gross revenues derived from BellSouth business customers?

RESPONSE: BellSouth does not have information available to determine the number of BellSouth business customers that "require" ISDN service.

INFORMATION PROVIDED BY: Barbara Sale

Manager

BellSouth Telecommunications, Inc.
3535 Colonnade Parkway
Birmingham, AL 35243

BellSouth Telecommunications, Inc. Docket No. 950984A-TP
MFS-FL 1st Set of Interrogatories
December 14, 1995
Item No. 3 Page: 1 of 1

Do key systems require four-wire connections? Please explain why or why not. REQUEST:

RESPONSE: Some key systems may require four-wire connections. This is dependent on customers' equipment requirements

and/or service needs.

INFORMATION PROVIDED BY: Bill Freeman

Manager

BellSouth Telecommunications, Inc.

3535 Colonnade Parkway Birmingham, AL 35243

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 4 Page: 1 of 1

REQUEST: Do private branch exchange ("PBX") systems require four-wire connections? Please explain why or why not.

RESPONSE: Some PBX systems may require four-wire connections. This is dependent on customers' equipment requirements and/or service needs.

INFORMATION PROVIDED BY: Bill Freeman

Manager

BellSouth Telecommunications, Inc.

3535 Colonnade Parkway Birmingham, AL 35243 BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 5(a)(b) Page: 1 of 1

REQUEST: What percentage of BellSouth business gross revenues are derived from business customers that utilize:

- a. key systems;
- b. PBX systems.

RESPONSE: BellSouth does not track total revenues on a class of customer split, i.e., PBX vs. Key vs. non-Key.

INFORMATION PROVIDED BY: Steve Bigelow Director

BellSouth Telecommunications, Inc.

3535 Colonnade Parkway Birmingham, AL 35342 BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 6 Page: 1 of 1

REOUEST:

Referring to Mr. Scheye's testimony that "it may be technically possible to offer the remaining ISDN and DS-1 loops and interfaces," (Scheye Direct at 13), what technical or economic obstacles has BellSouth identified that would prevent BellSouth from offering the links, ports, and other network elements that MFS-FL requested but BellSouth has not offered to provide?

RESPONSE:

ISDN is a much newer and complex technology than POTS. For that reason, BellSouth concentrated its initial effort in unbundling services which are easier to provide initially and that have more of a competitive impact in the marketplace. As issues with the simpler service (i.e., POTS) are identified and resolved, BellSouth will concentrate its efforts in unbundling the more complex services (i.e., ISDN). Therefore, BellSouth is not in a position to identify specific technical or economic obstacles at this time.

INFORMATION PROVIDED BY: Robert Scheye

Director

BellSouth Telecommunications, Inc.

675 West Peachtree Street, NE

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 7 Page: 1 of 1

REQUEST:

If BellSouth has identified such technical or economic obstacles in response to Interrogatory No. 6, has BellSouth discussed means of avoiding these obstacles with local exchange companies in Michigan and Illinois that have been ordered to provide the same links and ports as those requested by MFS-FL?

RESPONSE: See response to Item No. 6.

INFORMATION PROVIDED BY: Robert Scheye

Director

BellSouth Telecommunications, Inc.

675 West Peachtree Street, NE Atlanta, GA 30375

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 8 Page: 1 of 1

REQUEST: What is the statutory or other basis for Mr. Scheye's statement that BellSouth "has concentrated its resources on handling the basic elements first" (Scheye Direct at 13)?

RESPONSE: BellSouth, like any other business entity, has a limited amount of time and resources to dedicate to services it may potentially provide to ALECs as well as other customers. "As a practical and reasonable matter, BellSouth has concentrated its efforts in unbundling services which are technically easier to unbundle and have the greatest competitive impact in the marketplace (see response to Item No. 6).

INFORMATION PROVIDED BY: Robert Scheye
Director
BellSouth Telecommunications, Inc.
675 West Peachtree Street, NE
Atlanta, GA 30375

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 9 Page: 1 of 1

REQUEST: Is the unbundling of the links, ports, and other network

elements requested by MFS-FL technically and

economically feasible?

RESPONSE:

Unbundled voice frequency links and ports are technically and economically feasible. It is not economically feasible to provide sub-element unbundling as requested by MFS to multiple parties in a single element. For example, providing a separate DLC system at each remote terminal site for a myriad of alternate access providers will exhaust available housing and transport capacities with underutilized systems. Also, a DLC system which has been integrated to a digital switch is essentially a sub-element of the digital switch and cannot generally be used as an unbundled loop facility without losing all of the economies gained by

digital integration.

INFORMATION PROVIDED BY: Stan Fory Manager

BellSouth Telecommunications, Inc.

3535 Colonnade Parkway Birmingham, AL 35243

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 10 Page: 1 of 1

REQUEST: Did BellSouth request a "demand forecast" (Scheye Direct at 13) from MFS-FL when MFS-FL requested the loops and ports identified in the MFS-FL petition?

RESPONSE: BellSouth has requested a demand forecast from MFS-FL for many unbundled features and functions. While BellSouth has not specifically requested a forecast for unbundled ISDN loops and ports, MFS-FL has not provided BellSouth with any forecasts on any unbundled features and functions.

INFORMATION PROVIDED BY: Robert Scheye
Director
BellSouth Telecommunications, Inc.
675 West Peachtree Street, NE
Atlanta, GA 30375

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 12 Page: 1 of 1

REQUEST:

Does BellSouth consider the requests made by MFS-FL for certain unbundled loops, ports, and other network elements, as evidenced by TTD-1 and the Direct Testimony of Timothy Devine in this docket, to constitute a request for unbundled elements under Section 364.161(1), Fla. Stat.?

RESPONSE: Yes.

INFORMATION PROVIDED BY: Robert Scheye Director

BellSouth Telecommunications, Inc. 675 West Peachtree Street, NE

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 13 Page: 1 of 1

REQUEST:

What will be the standard of the "appropriateness" (Scheye Direct at 13) of an unbundling request? How, if at all, does this standard differ from the statutory standard that unbundling requests must be "technically and economically feasible"?

RESPONSE:

The response referenced in this interrogatory refers back to the ONA process that is being suggested by Mr. Scheye as the appropriate model for new unbundling requests. The criteria used to determine the "appropriateness" of any new unbundling request would be consistent with the criteria used in the ONA model. The criteria under the ONA model are technical and economic feasibility, a demonstration that there is demand sufficient to recover the costs of the requested capability or element and a demonstration that the requested capability has utility. These criteria are consistent with the statutory requirement in that utility of an unbundled offering is an aspect of determining the technical feasibility (e.g. will the capability have utility or work on a standalone basis) and demand must be demonstrated in order to meet the economic feasibility criteria.

INFORMATION PROVIDED BY:

Robert Scheye Director BellSouth Telecommunications, Inc. 675 West Peachtree Street, NE Atlanta, GA 30375

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 14 Page: 1 of 1

Are the standards listed by Mr. Scheye (Scheye Direct at 10) another way of stating that statutory standard of "technical and economic feasibility"? REQUEST:

RESPONSE: Yes. Please see the response to Interrogatory No. 13.

INFORMATION PROVIDED BY: Robert Scheye Director BellSouth Telecommunications, Inc. 675 West Peachtree Street, NE Atlanta, GA 30375

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 15 Page: 1 of 1

REOUEST:

How does BellSouth generally measure "technical feasibility" of unbundling loops, ports, and other network elements?

RESPONSE:

Technical feasibility is not "measured." Either a proposed architecture is technically feasible or it is not.

Technical feasibility means BOTH 1) the ability to go to the physical piece of equipment and make necessary physical rearrangements to redirect a chosen circuit from one termination point to another without interfering with other circuits on the system, AS WELL AS, 2) the ability of BellSouth to administer and maintain the new configuration.

Furthermore, technical and economic feasibility are often closely related. As discussed in our response to item 9, it would be technically possible to provide a separate DLC system at each remote terminal site for each alternate access provider, but the cost of additional housings and underutilized systems will likely make it economically unfeasible. Taken to the extreme, it is technically feasible to build numerous complete overlay networks, but the impact of placement, operation, administration, and utilization of multiple smaller networks on economics is obvious.

INFORMATION PROVIDED BY: Stan Fory

Manager
BellSouth Telecommunications, Inc.

3535 Colonnade Parkway Birmingham, AL 35243 BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 16 Page: 1 of 1

REQUEST: How does BellSouth generally measure "economic feasibility" of unbundling loops, ports and other network elements?

RESPONSE: A service is considered economically feasible if its expected revenues meet or exceed its direct Long Run

Incremental Costs.

INFORMATION PROVIDED BY: Robert Scheye

Director

BellSouth Telecommunications, Inc.

675 West Peachtree Street, NE

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 17 Page: 1 of 1

REQUEST:

What calculations, analyses, or studies did BellSouth make in order to determine the "technical and economic feasibility" of providing the loops and ports it has offered to provide? Please provide calculations, analyses, or studies for each type of loop, port, and other network element that was requested by MFS-FL but not offered by BellSouth, if possible.

RESPONSE:

Please see the response to Item 15 for questions concerning technical feasibility.

BellSouth plans to use existing tariff rates for those loops and ports it intends to provide initially. The studies and analyses conducted at the time those services were filed support a rate that is above each individual service is direct Long Run Incremental Costs. Those analyses were filed with and reviewed by the Florida Public Service Commission at the time the filings for those services were made.

INFORMATION PROVIDED BY: Robert Scheye

Director

BellSouth Telecommunications, Inc.

675 West Peachtree Street, NE

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 18 Page: 1 of 1

REQUEST:

What calculations, analyses, or studies did BellSouth make in order to determine the "technical and economic feasibility" of providing the loops, ports, and other network elements, such as loop concentration, requested by MFS-FL, but not offered at this time by BellSouth? Please provide calculations, analyses, or studies for each type of loop, port, and other network element that was requested by MFS-FL but not offered by BellSouth, if possible.

RESPONSE:

Please see the responses to Item No. 9 of this interrogatory and to Item No. 18 of the Staff's First Set of Interrogatories.

INFORMATION PROVIDED BY: Rober

Robert Scheye Director BellSouth Telecommunications, Inc. 675 West Peachtree Street, NE Atlanta, GA 30375

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 19 Page: 1 of 1

Who will decide whether a request is "appropriate" REQUEST:

(Scheye Direct at 13) or meets the criteria listed by

Mr. Scheye (Scheye Direct at 10)?

RESPONSE:

ALECs will submit a new request for review by BellSouth. BellSouth will review all requests by the criteria discussed on page 10 and 11 of Mr. Scheye's during 120 cycle. BellSouth anticipates the evaluation taking place during this cycle will be interactive and involve BellSouth and the ALEC(s) requesting the capability. Once evaluation is complete, a response with supporting documentation will be made to the requestor(s) as to whether the capability requested meets the technical and economic feasibility test. If the capability meets the criteria then it will be offered, if it does not, then BellSouth will not offer the requested capability or element.

INFORMATION PROVIDED BY: Robert Scheye

BellSouth Telecommunications, Inc.

675 West Peachtree Street, NE

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 20 Page: 1 of 1

REQUEST:

Will BellSouth provide a record basis for all denials of unbundling requests, including an analysis of the "technical and economic feasibility" of each such

unbundling request?

RESPONSE: Yes.

INFORMATION PROVIDED BY: Robert Scheye

Director

BellSouth Telecommunications, Inc.

675 West Peachtree Street, NE

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 21 Page: 1 of 1

REQUEST: Under the BellSouth proposal (Scheye Direct at 10), would BellSouth's unbundling decisions be subject to Commission review?

RESPONSE: The Commission would only need to be involved in those cases where the parties are not in agreement regarding the technical and economic feasibility of a given request.

INFORMATION PROVIDED BY: Robert Scheye Director

BellSouth Telecommunications, Inc. 675 West Peachtree Street, NE

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 22 Page: 1 of 1

From where is the standard of "appropriateness" referred REQUEST:

to in Interrogatory No. 13 derived?

RESPONSE: The term "appropriateness" as used in the context referred to in Interrogatory 13 is analogous to the term "technical and economic feasibility". This standard is derived from the statutory standard referred to in

Interrogatory 13.

INFORMATION PROVIDED BY: Robert Scheye

Director

BellSouth Telecommunications, Inc.

675 West Peachtree Street, NE Atlanta, GA 30375

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 23 Page: 1 of 1

REQUEST:

The following question refers to Mr. Scheye's testimony at page 14. What calculations, analyses, or studies support the statement that "It would be more costly to provision, sell and maintain these services as separate items"?

RESPONSE:

There are no specific studies or calculations that support this statement. However, it can be illustrated that it would more costly for order negotiation, provisioning, administration and billing of an unbundled residence or business line, or PBX trunk than for the bundled equivalent.

For example, a bundled business line is currently ordered by way of a single Uniform Service Order Code (USOC), such as a 1FB. The person negotiating the order with the customer only needs to know that a 1FB is desired. A single USOC is tracked in the provisioning and billing support systems. Moreover, only one line is required in the customer's billing statement to bill for the 1FB.

When the same business line is unbundled into possibly a loop, a port and a cross-connection, three USOCs are required to represent the new unbundled elements. It is obvious that it would take longer to negotiate and write an order for three USOCs than it would for one. Additionally, the order would need to indicate that USOCs X, Y and Z, for example, are somehow associated with one another. That same association would need to be interpreted by installation personnel to ensure that the order is provisioned properly. Also, more computer memory is required to track and administer three distinct USOCs in BellSouth's support systems than that required for a single USOC. Finally, it would be three times as costly to bill for the three USOCs representing the unbundled line because three lines would be required in the customer's billing statement compared to just one for the bundled 1FB.

INFORMATION PROVIDED BY:

Robert Scheye Director BellSouth Telecommunications, Inc. 675 West Peachtree Street, NE Atlanta, GA 30375

BellSouth Telecommunications, Inc. Docket No. 950984A-TP
MFS-FL 1st Set of Interrogatories
December 14, 1995
Item No. 24
Page: 1 of 1

Has BellSouth begun to deploy modern digital loop carrier ("DLC") systems? REQUEST:

RESPONSE: Yes.

Robert Scheye INFORMATION PROVIDED BY:

Director

BellSouth Telecommunications, Inc.

675 West Peachtree Street, NE

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 25 Page: 1 of 1

REQUEST:

Are BellSouth DLCs currently fully utilized? If not, what percentage is utilized? Please provide all calculations, analyses, or studies containing information regarding the utilization of DLCs.

RESPONSE: Yes. BellSouth DLC systems are all being utilized to

provide services to our customers.

INFORMATION PROVIDED BY: Robert Scheye

Director

BellSouth Telecommunications, Inc.

675 West Peachtree Street, NE

BellSouth Telecommunications, Inc. Docket No. 950984A-TP MFS-FL 1st Set of Interrogatories December 14, 1995 Item No. 26 Page: 1 of 1

REQUEST: If the answer to Interrogatory No. 24 is affirmative, does the use of DLC s increase the efficiency of the BellSouth network? Please provide all calculations, analyses, or studies containing information regarding increased efficiency due to DLCs.

RESPONSE: Yes. However, specific data quantifying the impact of DLC on the efficiency of the BellSouth network is not available.

INFORMATION PROVIDED BY: Stan Fory
Manager
BellSouth Telecommunications, Inc.
3535 Colonnade Parkway
Birmingham, AL 35243

CASE No. 88,627

**DOCKET NO.:** 950984-TP

WITNESS: ROBERT SCHEYE

PARTY: BELLSOUTH

# **DESCRIPTION:**

1/5/96 DEPOSITION TRANSCRIPT

**PROFFERING PARTY:** STAFF

I.D. # RCS-2



# BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE:

RESOLUTION OF PETITION(S) :
TO ESTABLISH NONDISCRIMINATORY : DOCKET NO.
RATES, TERMS, AND CONDITIONS FOR : 950984-TP
RESALE INVOLVING LOCAL EXCHANGE :
COMPANIES AND ALTERNATIVE LOCAL : FILED
EXCHANGE COMPANIES PURSUANT TO : 12/11/95
SECTION 364.161, FLORIDA STATUTES :

Deposition of ROBERT C. SCHEYE, taken pursuant to the stipulations contained herein; the reading and signing of the deposition reserved, before Brenda C.

Davis, B-1572, Certified Court Reporter, Notary Public in and for Newton County, Georgia, commencing at 2:58 P.M., on Friday, January 5, 1996, via telephonic means, with the court reporter being present at the offices of BellSouth Telecommunications at 675 W. Peachtree Street, Suite 4300, Atlanta, Georgia.

******

VERBATIM COURT REPORTERS, INC.

#### **APPEARANCES**

#### FOR BELLSOUTH TELECOMMUNICATIONS, INC.:

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#### FOR THE COMMISSION STAFF:

DONNA L. CANZANO SCOTT EDMONDS and TRACY HATCH, ATTORNEYS AT LAW Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

#### FOR METROPOLITAN FIBER SYSTEMS OF FLORIDA, INC.:

SWIDLER & BERLIN, CHARTERED

By: JAMES C. FALVEY and

RICHARD M. RINDLER, ATTORNEYS AT LAW

3000 K. Street, N.W.

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Washington, DC 20007

## FOR MCI METRO ACCESS TRANSMISSIONS SERVICES, INC.:

HOPPING, GREEN, SAMS & SMITH By: RICHARD D. MELSON, ESQUIRE P. O. Box 6526 Tallahassee, Florida 32314

#### FOR FLORIDA CABLE TELECOMMUNICATIONS ASSOCIATION:

WIGGINS & VILLACORTA

By: LAURA L. WILSON, ATTORNEY AT LAW

310 N. Monroe Street

Tallahassee, Florida 32399

## VERBATIM COURT REPORTERS, INC.

## FOR McCAW COMMUNICATIONS OF FLORIDA, INC.:

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## FOR CONTINENTAL CABLEVISION, INC. (Southeast Region):

DONALD L. CROSBY, ESQUIRE
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Jacksonville, Florida 32256

#### FOR TIME WARNER:

PENNINGTON & HABEN, P.A.

By: SUE WEISKE, ATTORNEY AT LAW

P. O. Box 10095

Tallahassee, Florida 32302

## ALSO PRESENT:

Mr. Robert Scheye

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#### INDEX

WITNESS PAGE

ROBERT C. SCHEYE

Cross examination by Mr. Falvey

(No Exhibits Marked by the Parties.)

(See the deposition of Aniruddha Banerjee for the court reporter disclosure as required by Georgia law.)

#### TRANSCRIPT LEGEND

(sic) = Exactly as stated
-- = Break in continuity
... = Sentence incomplete or speaker trailed off
(phonetic) = Exact spelling unknown
...- = Break in phone transmission

VERBATIM COURT REPORTERS, INC.

1	PROCEEDINGS
2	(2:58 P.M.)
3	(Witness sworn by the court reporter.)
4	MR. LACKEY: We'll use the same
5	stipulations as before if that's
6	agreeable.
7	My name is R. Douglas Lackey. I'm
8	appearing on behalf of BellSouth
9	Telecommunications, Inc. in this
10	proceeding.
11	MR. FALVEY: This is James C. Falvey,
12	with Swidler & Berlin, appearing on behalf
13	of Metropolitan Fiber Systems of Florida,
14	Inc.
15	Are there any other further
16	appearances to be entered?
17	MR. MELSON: Richard Melson of
18	Hopping, Green, Sams and Smith, P. O. Box
19	6526, Tallahassee, Florida, appearing on
20	behalf of MCI Metro Access Transmission
21	Services, Inc.
22	MR. EDMONDS: This is Scott Edmonds.
23	Donna L. Canzano, Scott Edmonds and Tracy
24	Hatch, appearing on behalf of the

Commission Staff.

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1	MR. HORTON: And Norman H. Horton, Jr.
2	and Floyd R. Self with the Messer,
3	Caparello law firm in Tallahassee on
4	behalf of LDDS WorldCom.
5	MS. WILSON: Laura Wilson, appearing
6	on behalf of the Florida Cable
7	Telecommunications Association.
8	MR. FALVEY: Are there any further
9	appearances?
10	(Whereupon, no response was heard.)
11	MR. FALVEY: Okay, Mr just for the
12	record, I don't know, maybe Doug already
13	mentioned this. But this is the
14	deposition of Robert C. Scheye in the
15	Docket Number 950984-GP, unbundling
16	docket.
17	(It is stipulated and agreed by and
18	between counsel appearing for the
19	respective parties that:
20	This deposition is taken pursuant to
21	notice. That objections, except as to the
22	form of the question are reserved until
23	the hearing. And the witness doesn't
24	waive reading and signing of the

25

deposition.

1	And that no one will go off the record
2	without the consent of the deponent.)
3	Whereupon,
4	MR. ROBERT C. SCHEYE
5	was called as a witness herein and, having been
6	first duly sworn, was examined and deposed as
7	follows:
8	CROSS EXAMINATION
9	BY MR. FALVEY:
10	Q. Mr. Scheye, could you please state your
11	full name and business address?
12	A. It's Robert C. Scheye, 675 West Peachtree
13	Street, Atlanta, Georgia, 30375.
14	Q. Mr. Scheye, have you submitted testimony
15	in this docket?
16	A. Yes.
17	Q. Have you submitted exhibits with that
18	testimony?
19	A. Yes.
20	Q. Okay. I'd like to refer to the deposition
21	of December 18th, 1995.
22	A. Okay.
23	Q. Let's turn to Page 8.
24	A. Page 8, did you say, sir, or 18? I
25	couldn't hear you.

1	Q. Sorry. Page 8.
2	A. Page 8, okay. Whoops. I seem to have
3	every other page.
4	MR. LACKEY: Hold on for a minute.
5	I'll give you
6	BY THE DEPONENT: (Resuming)
7	A. I only have the odd pages. Could you use
8	one of those?
9	THE DEPONENT: Thank you.
10	MR. LACKEY: I've given Mr. Scheye my
11	Page 8. Go ahead.
12	BY THE DEPONENT: (Resuming)
13	A. Sorry.
14	Q. No problem. We're talking aboutof
15	a loop, there's really been no real request for the
16	service. Are you aware that MFS has requested what
17	you refer to as sub loop unbundling?
18	A. No, sir.
19	Q. Okay. Have you read the MFS testimony in
20	this docket?
21	A. I've read it and I don't recall seeing
22	that, sir. I may have missed it.
23	Q. Maybe if we can well, maybe we can come
24	back to that and I can refer to that. I can get
25	that into the record some other way.

1	Are you willing to provide loop
2	concentration?
3	A. We have said that we are considering the
4	technical and economic feasibility of providing
5	loop concentration.
6	Q. Have you have you offered a proposal
7	for loop unbundling in any other BellSouth State to
8	MFS?
9	A. A proposal for loop
10	Q. Unbundling?
11	A. No, sir.
L 2	Q. You have not. What about in Georgia?
13	A. Yes, what about Georgia?
14	Q. Have you offered a proposal for loop
15	concentration capability in Georgia?
16	A. I've provided representatives from MFS
17	possible rates that could apply if we were to offer
18	concentration or loop concentration. I would not
19	call that a proposal.
20	Q. Okay. Have you provided those possible
21	rates for Florida?
22	A. They were the same rates or they would
23	have been the same rates.
24	Q. I know. But I mean did you ever even

25 offer them in Florida?

1	A. They were offered or they were provided to
2	MFS generically, not State specifically.
3	Q. I see. So, what you're saying is that
4	that offer was for both states but it wasn't but
5	it was just rates?
6	A. Yes, sir.
7	Q. Okay. Is let's see. Would you have
8	any problem with introducing into the record the
9	proposal that you made?
10	A. Yes, sir.
11	Q. You would have a problem?
12	A. Yes, sir.
13	Q. Okay. Maybe we
14	MR. LACKEY: Those are matters of
15	settlement discussion and are not
15 16	settlement discussion and are not admissible evidence.
16	admissible evidence.
16 17	admissible evidence.  MR. FALVEY: Well, maybe we can take
16 17 18	admissible evidence.  MR. FALVEY: Well, maybe we can take  that up without maybe we can take that
16 17 18 19	MR. FALVEY: Well, maybe we can take that up without maybe we can take that up at the hearing.
16 17 18 19 20	admissible evidence.  MR. FALVEY: Well, maybe we can take that up without maybe we can take that up at the hearing.  MR. LACKEY: Well, I'll put you on
16 17 18 19 20 21	admissible evidence.  MR. FALVEY: Well, maybe we can take that up without maybe we can take that up at the hearing.  MR. LACKEY: Well, I'll put you on notice now that I'm going to object to any

MFS and BellSouth.

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## BY THE DEPONENT: (Resuming)

- A. Let me make the point that it's been BellSouth's understanding and commitment that all information provided and used for purposes of discussion and negotiations are between the parties and not to be provided to any other party. And that that has been abided by -- by essentially every other party in this proceeding except for MFS.
- Q. Would loop concentration necessarily require new hardware; that is, providing loop concentration for MFS?
  - A. Yes, it would, sir.
- Q. Wouldn't it be possible to use the same hardware that you currently use?
  - A. No, sir.
- Q. Okay. Why wouldn't that be possible?
- A. Because the type of equipment that -- at least as I understand what MFS is looking for -- would require us to use unique equipment dedicated to MFS to provide that capability.
  - Q. That's -- I'm sorry, sir. You said something about the equipment that you couldn't use it for other providers?
    - A. Presumably you wouldn't; no. You would

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dedicate it to the provider who wanted it.

- Q. Now, maybe you can help me out. A digital loop carrier, does it have -- my understanding is that it takes a number of channels and breaks it down into another number of channels.
  - A. Yes, sir.

- Q. And could it only service one input at a time? In other words, is there just one -- one loop or line that goes into a given digital loop carrier at any time?
- A. No, there's going to be a lot of them. In typical, there would be up to 96 of them going into one of them.
  - Q. And how many coming out the other end?
- A. It can vary but for discussion purposes, say 48.
- Q. So, could you use it -- could you have a certain number of ours going in one end? Let's say you've got a hundred. Could you put 50 of ours in and 50 of yours at the same time and have them serviced separately in the same digital loop carrier system?
- A. I'm -- I'm not familiar enough with the hardware to be able to answer that. But my understanding is no.

Q. Your understanding is no?

- A. That's correct. But I will...
- Q. Hypothetically, if the answer were yes, could you share a digital loop carrier system with -- with another party?
- A. If we were taking -- again hypothetically, if we taking that -- what was coming out of the other end, as we speak, to a different location, then presumably the answer to that would be yes.

  But typically, we wouldn't be doing that. We would only concentrate and leave it right where it is as opposed to what other companies request as concentration, is so they can concentrate and take it to their premises.
- Q. Okay. If we could look at your deposition, Page 10, Lines 8 through 11.
  - A. Okay. And I need to get Mr. Lackey's copy again since I don't have even number pages. Page 10, line what. I'm sorry. I didn't hear what line number, sir.
- 21 O. Lines 8 through 11.
  - A. Eight through 11. Yes, sir.
  - Q. You say there that special access provides not only a voice grade service but high capacity digital services, it provides multiplexing

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2	A. Yes.
3	Q. Would you agree that special access then
4	is different than an unbundled loop?
5	A. No.
6	Q. But it seems that there are additional
7	capabilities that special access provides that
8	might not be requested in the unbundled loop?
9	A. Yes, sir. Special access would be a
10	broader category of which an unbundled loop would
11	be but one element. You're correct.
12	Q. So, why do you want to price them at the
13	same level?
14	A. I don't want to provide special access
15	has hundreds of rates. I'm only using the rate
16	that would apply to the part that would be
17	equivalent to the the loop, not all hundred
18	rates or whatever is in there.
19	Q. Okay. So, there's sub rates sub rates?
20	A. Well, I wouldn't call them sub rates.
21	They're rates for different functions.
22	Q. Okay. Is the provisioning of a special
23	access line the same as that required for the
24	provisioning of a pots line?
25	A. It can be the same. It can be different.

1 | capability. And you go on from there.

If it were different, do you think it's 1 Ο. justified to charge the same price? 2 Yes. Α. 3 Why? Q. 4 Those differences, to the extent that they 5 would exist, are probably insignificant in the 6 7 pricing. Probably insignificant? 0. 8 Yes, sir. 9 Α. Do you impute special access rates into 10 Q. your own charges? 11 No. 12 Α. Is BellSouth willing to impute special 13 ο. access rates into their own end user rate? 14 To the extent that it would prove that Α. 15 certain of our exchange rates are below cost, I 16 don't know that we would have a great problem with 17 I think it would simply result in that. 18 reaffirmation of what has already been determined 19 or is known. And that is that, for example, our 20 basic local residence exchange rate is below cost. 21 So if that's what you're asking me, would I be 22 willing to do that in order to reaffirm that, I 23 think the answer is yes. 24

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Would that cause your end user rates to

In Florida, right now, I believe I'm 2 prohibited by legislation from increasing those 3 rates for some period of time. I can't recall if 4 it's three years or five years, something like 5 6 So, I couldn't do that. Would you then sort of by the transitive 7 of property be prohibited by law from imputing 8 special access rates into your end user rate? 9 MR. LACKEY: I'm going to object to 10 the form of the question? 11 MR. FALVEY: Because the prohibitive 12 13 by law? MR. LACKEY: Yeah, he can't give you a 14 15 legal... BY MR. FALVEY: (Resuming) 16 Well, if -- if you imputed special access 17 rates into your end user rate, would it...--...to 18 increase your end user rate? 19 Would it cause me to increase them? 20 Α. 21 Q. Yes. I can't increase them. I just mentioned 22 Α. 23 that. Well... 24 Q. 25 Α. I'm sorry. I didn't hear your question.

1

rise?

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_	Q. Now would you impute the late.
2	A. How would I impute the rate?
3	Q. Let's start with that. Would you impute
4	your special access rate into your end user rate?
5	A. If I was required to do so, I would.
6	Q. Would that requirement cause you to
7	increase your end user rate?
8	A. No.
9	Q. No. So, you could impute just for
10	example a \$21 special access rate into an end user
11	rate and not increase your end user rate?
12	A. I can't increase my end user rate. You're
13	asking me to do something that's impossible. I'm
14	not allowed by law to increase my rate. So, I
15	guess the answer is it would not require me to
16	increase my rate.
17	Q. Well, either you can either you will
18	either you would recommend it or you would not?
19	A. I have not recommended that we impute our
20	special access rate to a local exchange.
21	Q. Do you think that would be a good means to
22	preclude a price squeeze?
23	A. No.
24	Q. Are you familiar with Mr. Banerjee's
25	Dr. Banerjee's testimony with respect to imputation

1 Q. How would you impute the rate?

2 Α. Yes, sir. 3 Q. Okay. Do you have any other means of 4 precluding a price squeeze? I don't think there is any price squeeze. 5 If you charged -- what if -- what charges 6 ٥. 7 are you going to assess to ALEC's? Are you going to assess an interconnection charge? 8 I'm sorry. I thought we were in an 9 Α. unbundling proceeding. You've got me confused now. 10 11 Q. Unfortunately the price squeeze issue, you know, traverses the line between the two dockets. 12 So, this is relevant to both dockets. And we can 13 judge the relevance at a later date. Maybe if 14 15 someone wants to move to strike, they can do that. MR. LACKEY: Or instruct the witness 16 not to answer, which is the other option. 17 MR. FALVEY: Well, my thought -- I 18 thought -- is it an objection to the form 19 20 of the question, Doug? MR. LACKEY: Pardon me. No. 21 I'm just 22 telling you either ask him the question and let's move on, or I'll just tell him 23 not to answer it. 24 25 MR. FALVEY: I mean, what I'm saying I

as a means to preclude a price squeeze?

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#### VERBATIM COURT REPORTERS, INC.

1	thought one of the stipulations was that -
2	- well, I thought your objections were
3	reserved
4	MR. LACKEY: Yeah. I'm just telling
5	you I'm getting ready to change my mind.
6	Let's move on.
7	MR. FALVEY: Your mind about the
8	stipulations?
9	MR. LACKEY: Have you got a question
10	you want to ask him?
11	BY MR. FALVEY: (Resuming)
12	Q. I asked him. The question is, is will
13	BellSouth access interconnection charges to ALEC's?
14	A. Yes, sir.
15	Q. , And will they access number portability
16	charges when that service is provided?
17	A. Yes, sir.
18	Q. And will there be charges for unbundled
19	loops?
20	A. Yes.
21	Q. Okay. And would you impute all those
22	charges into your end user rate? Would you
23	recommend that BellSouth do that?
24	A. No, sir, I wouldn't.
25	Q. Do you have if the assessing of all

# VERBATIM COURT REPORTERS, INC.

those charges led to a price squeeze, taking that 1 as a hypothetical, would you have any way of 2 avoiding that price squeeze? 3 4 Α. In -- in the hypothetical world that you just created, I have no idea because I don't 5 foresee any price squeeze. 6 7 Okay. Would you concede that they're 8 going to raise -- if they are paying -- in paying those charges, ALECs will be -- will incur 9 additional costs by paying those charges? 10 As compared to if they didn't pay any of Α. 11 them? 12 That's right. 13 0. Well, certainly, if we gave away 14 Α. 15 everything free I think I would agree that they would incur additional expense versus me giving 16 everything away for free; yes, sir. 17 Okay. And that by paying those charges 18 that the margin that the ALECs will have, the 19 profit margins will be eroded? 20 Again, relative to me giving away all my 21 Α. services for free; yes. 22 23 Do you agree to the extent that you can increase those charges, to the extent that 24

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25

BellSouth can increase those charges, it's

1	competitive position vis-a-vis Alecs will be
2	improved?
3	A. I don't know if I can I don't know if
4	can conclude that; no.
5	Q. Okay. Can we look at Page 12, Line 12 of
6	yourof your docket?
7	A. I'm sorry. You broke up again, of what?
8	Q. Of your direct testimony?
9	A. Direct testimony. Sorry. Did you say
. 0	Page 12?
.1	Q. Yes.
۱2	A. Okay. I have it.
L3	Q. Okay. Where you state that BellSouth's
L <b>4</b>	initial focus has been to develop unbundled
L <b>5</b>	capabilities essential to offer basic exchange
L 6	services.
.7	A. Yes, sir.
L 8	Q. What was the basis or who determined
L 9	that that should be the initial focus?
20	A. We did.
21	Q. So, if a company requested something that
22	was not essential to offer basic exchange services
23	to be unbundled, would that have been completely
24	ignored for the time being?
25	A. No, not at all. We would as a matter

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25

1 of fact, based on discussions with MFS and 2 acknowledgement of their desire for something beyond that, we've already begun to look at things 3 4 such as concentration that we had not initially 5 looked at. So, we have tried to do everything possible to be responsive to what their requests 6 7 have been. Did you begin that prior to the fact, you Q. 8 9 know, at the same time that the request for that 10 unbundled element was made? Α. Yes. 11 And have you made a determination as to 12 13 the economical and technical feasibility of unbundling? 14 Of unbundling in general? 15 16 No, of each of the elements requested by O. MFS? 17 No. No, sir. 18 Α. Okay. Would you agree that if BellSouth 19 had infinite resources it could make that 20 determination more quickly than given that it has 21

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all competent and had all the same expertise and et

cetera, that's probably a true statement, yes.

I quess if those infinite resources were

limited resources?

Α.

22

23

24

25

1	Q. And would you agree that if you increase
2	the amount of resources you dedicate to making
3	those determinations that the speed with which
4	those determinations are made would be increased?
5	A. Not necessarily.
6	Q. Not necessarily.
7	A. No, sir.
8	Q. So, if you had twenty people working on
9	it, it wouldn't move faster than if you had ten
10	people working on it?
11	A. Very likely.
12	Q. That it would not?
13	A. It would not, that's correct.
14	Q. But say you put ten people on each element
15	as opposed to one person on each element
16	A. Yes.
17	Q you're suggesting that it wouldn't move
18	faster?
19	A. It may not if they don't have a proper
20	expertise to assess it, no.
21	Q. Okay.
22	A. If they all had infinite expertise, then
23	I'm sure the answer to your question is yes.
24	Q. Okay. On Page 21, Line 19.

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Are we in my direct testimony still?

25

1	Q. I apologize. I've gone back to your
2	deposition.
3	A. That's an odd number page. I think I have
4	that one. Page 19, and I missed the line number
5	you gave me.
6	Q. Eighteen through 21.
7	A. Page 19, Line 18 starts
8	Q. Page 21, Lines 18 through 21.
9	A. Oh, I'm Page 21, Line 18. I'm sorry.
10	Yes, sir. I got it.
11	Q. Could you explain to me what definition of
12	a switch you're referring to that according to
13	which concentration hardware is classified as a
14	switch?
15	A. Basically, the tariffs that we have filed
16	that are in effect in the FCC or the Federal arena
17	and those that we have pending before the Florida
18	Commission, are for virtual co-location indicate or
19	provide, in accordance with the FCC's rules at
20	least, what can be co-located and what is not
21	allowed to be co-located under those tariffs.
22	Q. Does the digital loop carrier that
23	provides concentration, is that performing

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A. It is considered to perform a switching

switching function?

24

25

functions, yes, sir.

Q. Does it -- my understanding is that it just -- it just concentrates -- concentrates the changes that take a certain number of lines on one end and brings it out. For instance maybe it takes a DS-3 and breaks it up into DS-1's or something like that. It doesn't actually switch the call to -- it doesn't take any NXX code. Is that all correct?

A. I think what -- you are correct. I think the point, and I would agree with you, is with some of these newer technologies, like a concentrator that you're referring to, it is not always as clean cut as some of the more traditional equipment to determine is it a switch or is it not a switch under those definitions. I will accept that but -- so it's sort of a continuum between switching and multiplexing. And a concentrator provides some functionality that looks like each of those. So it's -- it's somewhat of a borderline case.

- Q. Do some of them perform time division multiplexing?
  - A. Yes, sir.
- Q. And isn't it basically really a
  multiplexor? If you had to -- if you had to say

## VERBATIM COURT REPORTERS, INC.

this is, you've got a choice, this piece of 2 equipment is a switcher or multiplexor, which one would you use? 3 4 Α. Obviously, I would say it's a switch. Say I'm MFS. I want to send a call to the 5 Q. BellSouth network. Can I just -- can I send the 6 7 call to a digital loop carrier system and have it switched to go off of the MFS system and onto your 8 9 system? 10 Α. I'm sorry. I lost that one. Can you 11 start again on the call and who's doing what to 12 whom? I just missed it. I guess, let's say you have -- you have 13 two customers coming off the same digital loop 14 They have facilities running into carrier system. 15 the digital loop carrier. 16 Right. 17 Α. Can an additional loop carrier switch the 18 call from the one customer over to the other? 19 Not without some other devices 20 Α. intervening, no. 21 So, there's a need for an additional...--22 ο. ...like a switch? 23

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totally disagreeing with you. I'm telling you that

24

25

Α.

Right. As I guess I mentioned, I'm not

- a concentrator provides functionality that somewhat looks like a switch and somewhat looks like a multiplexor. It's not cleanly in either camp form the purest standpoint.
- Q. It's a transmission device, isn't that more than a switch?

- A. No, obviously we think it's a little bit more switch than transmission. But it's -- it's a difficult call. I will agree with you.
- Q. Do you know what definition you're referring to? I guess -- did you say it was an FCC definition?
- A. Well, the FCC definition talks about switching and non-switching. The people who are much more familiar with the technical workings of these pieces of hardware are the ones that actually determine how to classify a particular piece of equipment. And that's what I'm referring to. And that's certainly somewhat beyond the scope of my knowledge.
- Q. Are you saying you don't have a definition? Because you say in your testimony that it meets the definition of a switch. So, I'm just saying what is the definition? You can't point me to anything at all?

1 Α. It's a categorization of equipment and 2 what BellSouth has -- far as I know. And I don't 3 know about other companies. But BellSouth, in categorizing different kinds of equipment, when you 4 5 assess it you put it under different categories. 6 Right. 0. 7 And what we're suggesting is based on our Α. analysis, just like of any other piece of equipment 8 9 that we would do, that concentration equipment like the type we're talking about here would be 10 categorized and accounted for as a piece of 11 12 switching gear as opposed to a piece of multiplexing gear or a piece of transmission gear. 13 You're saying that it doesn't meet the 14 BellSouth definition or some kind of FCC or State 15 16 definition? No, I didn't say -- it doesn't... 17 Α. For an opinion, I don't think because I'm 18 Ο. 19 just asking what you talked about. No, I'm referring to a BellSouth 20 Α. definition. 21 So -- but you say the rules on co-22 Oh. 0. location do not permit the co-locating of a switch 23

or a switch equivalent. Are those Federal rules or

24

25

State rules?

Those are Federal rules but the co-Α. 1 location application has been -- been made to be 2 3 comparable in both jurisdictions. And the stipulation attachment D, Page 6. Do you have the stipulation? 5 Yeah, I did -- is that attachment D as in 6 7 dog? Q. Yes. 8 9 Α. Okay. 10 Q. And flip over to Page 6. 11 Α. Six, yes. By my reading, there's only one sentence 12 Ο. in this -- on this page and really in the whole 13 14 stipulation regarding local loop unbundling; is that correct or am I -- or is there some reference 15 that I'm... 16 17 No, I think you're correct. Ο. Does this define what an unbundled local 18 loop is? 19 No, it doesn't provide a specific -- I 20 Α. 21 mean there's no definition section in here. 22 Okay. How was it meant to be defined? 23 How do you define it? 24 Α. A local loop? As a facility between an

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end user's premises and a BellSouth serving office.

25

1	Q. Is it fair to say that they were talkin
2	about the types of loops that you've offered in
3	your testimony in the MFS docket?
4	A. Yes.
5	MR. FALVEY: Okay. I'd I probably
6	haven't done a very good job of it but I'd
7	like to leave a little bit of time if
8	anyone else has any questions.
9	MR. LACKEY: Does anybody have any
10	more questions for Mr. Scheye in the
11	950984 docket?
12	MR. MELSON: MCI does not.
13	MR. LACKEY: Any other party?
14	MR. HATCH: The State doesn't have any
15	questions.
16	MR. FALVEY: I have one final question
17	if no one else has any.
18	BY MR. FALVEY: (Resuming)
19	Qincremental cost studies of
20	unbundled loops?
21	MR. LACKEY: I'm sorry. We couldn't
22	hear your question.
23	BY MR. FALVEY: (Resuming)
24	Q. All right. Have you performed long
25	running incremental cost studies of unbundled

1	loops?
2	A. I have not. And if BellSouth has, I have
3	not seen them.
4	Q. Okay. Mr. Scheye, thank you for your time
5	and your patience. And MFS has no further
6	questions.
7	A. Thank you, sir.
8	MR. LACKEY: Does that conclude this
9	deposition?
10	MR. FALVEY: Yes, it does.
11	MR. LACKEY: Apparently so.
12	(Whereupon, the foregoing matter was
13	concluded at 3:27 P.M.)
14	-000-

#### CERTIFICATE

STATE OF GEORGIA ) COUNTY OF NEWTON )

I, Brenda C. Davis, Certified Court Reporter, and Notary Public in and for Newton County, Georgia, do hereby certify that the foregoing deposition was taken down by me, as stated in the caption; that the foregoing questions and answers were reduced to print by me; that the foregoing pages 4 through 31 represent a true, correct, and complete transcript of the evidence given by the witness, ROBERT C. SCHEYE, who was first duly sworn by me; that I am not a relative, employee, attorney or counsel of any of the parties; that I am not a relative or employee of attorney or counsel for any of said parties; nor am I financially interested in the outcome of the action.

This, the 7th day of January, 1996.

Notary Public

My commission expires: December 12, 1999.

VERBATIM COURT REPORTERS, INC.

# ERRATA SHEET

	I	h	ere	by	cert	ify	tha	t I	have	rea	ď	or	ha	νe	had
						_	_			in	Pa	ges	4	th	rough
31	and	i r	10	cha	nges	are	rec	quir	ed:						

ROBERT C. SCHEYE
Sworn to and subscribed before me, this
day of, 1996.
Notary Public
My commission expires:
*******
I hereby certify that I have read or have had read to me the foregoing Pages 4 through 31 and I wish to make the following changes:
Page::
Page:Line::
Page:Line::
Page:Line:
Page:Line::
ROBERT C. SCHEYE
Sworn to and subscribed before me, this
day, 1996.
Notary Public
My commission expires:
4.0

VERBATIM COURT REPORTERS, INC.

# BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE:

RESOLUTION OF PETITION(S) :
TO ESTABLISH NONDISCRIMINATORY : DOCKET NO.
RATES, TERMS, AND CONDITIONS FOR : 950984-TP
RESALE INVOLVING LOCAL EXCHANGE :
COMPANIES AND ALTERNATIVE LOCAL : FILED
EXCHANGE COMPANIES PURSUANT TO : 12/11/95
SECTION 364.161, FLORIDA STATUTES :

#### AMENDED CERTIFICATE

I, Brenda C. Davis, Certified Court Reporter, state that the deposition of ROBERT C. SCHEYE was transcribed and a copy mailed to Mr. Lackey, attorney for BellSouth, on or about January 8, 1996, advising him to have his client read and sign the deposition within the time parameters allowed under Florida Law, and return the executed Errata Sheet to my office.

As a hearing has been scheduled in this matter for Tuesday, January 9, 1996, the original is hereby sealed for use at said hearing, with the provision that when/if the Errata Sheet is returned, it will be forwarded to the appropriate parties; this, the 7th day of January, 1996.

BRENDA C. DAVIS, CCR-B-1572

Notary Public

My commission expires: December 12, 1999.

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BELLSOUTH
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FLORIDA
ISSUED: February 1, 1994

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Eighth Revised Page 28 Cancels Seventh Revised Page 28

EFFECTIVE: February 17, 1994

ISSUED: February 1, 1994
BY: Joseph P. Lacher, President - FL
Miami, Florida

#### A3. BASIC LOCAL EXCHANGE SERVICE

#### A3.4 Flat Rate Service(Cont'd)

(C)

A3.4.2 Monthly Rates (Cont'd)

(C)

(T)

(T)

(T)

- F. Auxiliary Line Service (Inward Service) (Cont'd)
  - 2. The auxiliary line must terminate on the same premises as that in which the two-way service is located.
  - The auxiliary line is to be used for one way (inward to the subscriber) service only.
  - 4. Auxiliary line service may or may not be arranged for rotary, hunting or similar service which allows completion of an incoming call from a line that is called but is in use, by means of an arrangement of central office equipment on a full time basis.
  - 5. Auxiliary line service is furnished at a rate for each line equal to the rate applicable for business individual line flat rate service for that exchange. Where the lines are arranged for rotary, hunting or similar service, the rotary charge will apply as specified in A3.6.
    - a. Rates
      - (1) Rate Groups 1-6

				Group				
		1	2	3	4	5	6	USOC
	(a) Per Auxiliary line	\$19.80	\$20.80	\$21.90	\$22.90	\$23.85	\$24.90	7F8
(2)	Rate Groups 7-12							
				Group				
		7	8	9	10	11	12	USOC
	(a) Per Auxiliary line	\$25.75	\$26.60	\$27.40	\$28.00	\$28.60	\$29.10	7FB

- G. Mobile Service Exchange Charge
  - 1. See Section A17, for Rates.
- H. Outgoing Only Service
  - 1. See A3.29 for regulations and rates.

#### A3.5 Message Rate Service

#### A3.5.1 General

- A. Business and residence individual line message rate service is offered in all exchanges except where noted in the Local Exceptions A3.8 of this Tariff. Residence individual line message rate service is offered in all exchanges where facilities permit. The rates specified entitle subscribers to the number of messages specified to all exchange access lines bearing the designation of central offices of the serving exchange and additional exchanges as shown in A3.3.1 of this Tariff.
- B. Subscribers to message rate service are regularly billed monthly in advance. Messages in excess of the monthly message allowance are billed monthly in arrears. Local messages not used in one month's allowance are not credited to the subscriber's account for any other month service is rendered.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET,
NO. 750984-TP EXHIBIT NO. 17

DATE:

^{*} d/b/a SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY

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er, President - FL

#### A3. BASIC LOCAL EXCHANGE SERVICE

#### A3.5 Message Rate Service (Cont'd)

#### A3.5.1 General (Cont'd)

Miami, Florida

- C. Where a subscriber contracts for two or more individual message rate lines on the same premises and agrees to grouped billing, the number of monthly message allowances per line, as specified preceding, will be multiplied by the number of such message rate lines and messages in excess of this product will be billed at the additional local message charge as indicated following. All lines included for such allowance must have the same central office designation.
- D. Message charges will not apply to calls to the Company Business Office, Repair Service, Directory Assistance, Emergency 911 Service or 976 Dial-It Service.
- E. Message rate service will not be provided in connection with the provision of Foreign Exchange or Foreign Central Office services.
- F. Generally, any combination of message rate and flat rate service will not be allowed on the same premises. See A2.3.2 of this Tariff for specific exceptions to this rule.
- G. A message rate outgoing only line is also available to business and residence customers. See A3.29 for regulations and rates.

#### A3.5.2 Monthly Rates and Message Charges

A. Residence Individual Line Message Rates

1. Monthly Rates - Rate Groups 1-6

	Group							
	1	2	3	4	5	6	USOC	
(a) Per line	\$4.38	\$4.62	\$4.86	\$5.04	\$5.28	\$5.49	1MR	
Monthly Rates - Rate Groups 7-12								
			Group					

	Group						
	7	8	9	10	11	12	USOC
(a) Per line	\$5.70	\$5.88	\$6.03	\$6.18	\$6.27	\$6.39	1MR
Leaves Allamana and Marsas Charac							

3. Message Allowance and Message Charges

a. The monthly message allowance, per line is 30 outgoing local messages (to the message rate service Local Calling Area described in A3.3.1)

(1) Additional outgoing local messages to the message rate service Local Calling Area in excess of the allowance

			Price	USOC	
	(a)	Each	\$.10	NA	
4.	(DELETED)		·		(D)

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: Joseph P. Lacher, Preside Miami, Florida

# A3. BASIC LOCAL EXCHANGE SERVICE

Bus l.			il Line Message Rates							
	Monthly .		- Rate Groups 1-6							
						Group				
				1	2	3	4	5	6	USOC
		(a)	Per line	\$14.71	\$15.46	\$16.29	\$17.04	\$17.75	\$18.54	1M8
2.	Monthly !	Rates	- Rate Groups 7-12							
			•			Group				
				7	. 8	9	10	11	12	USOC
		(a)	Per line	\$19.18	\$19.81	\$20.41	\$20.86	\$21.31	\$21.69	1M8
3.	Message .	Allov	wance and Message Charges							
	is 75	local	hly message allowance, per line messages (to the message rate rea described in AJ.J.1)							
		messo	tional local messages to the age rate service Local Calling a owance	Area in excess						

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FLORIDA ISSUED: April 29, 1995 BY: Joseph P. Lacher, President - FL Miami, Florida

#### A3. BASIC LOCAL EXCHANGE SERVICE

# A3.5 Message Rate Service (Cont'd)

#### A3.5.2 Monthly Rates and Message Charges (Cont'd)

C. Residence and Business Individual Line Monthly Rates by Exchange for Message Rate Service¹

Exchange	Residence	Business
Archer	\$5.28	<b>\$17.75</b>
Baldwin	6.03	20.41
Belle Glade	4.86	16.29
Big Pine Key	4.86	16.29
Boca Raton	6.18	20.86
Boynton Beach	6.18	20.86
Bronson	4.86	16,29
Brooksville	5.28	1 <b>7.75</b>
Bunnell	4.86	16.29
Cantonment	5.49	18.54
Cedar Keys	4.38	14.71
Century	5.49	18.54
Chiefland	4,86	16.29
Chipley	4.86	16.29
Cocoa	5.70	19.18
Cocoa Beach	5.70	19.18
Coral Springs	6.39	21.69
Cross City	4.62	15.46
Daytona Beach	5.49	18.54
DeBary	5.28	17.75
Deerfield Beach	6.39	21.69
Deland	5.28	17.75
DeLeon Springs	5.04	17.04
Delray Beach	5.88	19.81
Dunnellon	5.49	18.54

Note 1:

For the message rate service Local Calling Area, the monthly local message allowance per Business Message Rate line is 75, with an additional message charge of \$.12 for each local message over the allowance. For Residence Message Rate, the monthly local message allowance per line is 30 with an additional message charge of \$.10 for each outgoing local message over the allowance.

[&]quot;d/wa southern bell telephone and telegraph company

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Twenty Seventh Revised Page 30.1 Cancels Twenty Sixth Revised Page 30.1

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(C)(I)

# Miami, Florida

#### A3. BASIC LOCAL EXCHANGE SERVICE

### A3.5 Message Rate Service (Cont'd)

#### A3.5.2 Monthly Rates and Message Charges (Cont'd)

C. Residence and Business Individual Line Monthly Rates by Exchange for Message Rate Service¹ (Cont'd)

Exchange	Residence	Business
East Orange	\$6.27	\$21.31
Eau Gallie		
Eau Gallie-East ²	5.70	19.18
Eau Gallie-West ²	5.70	19.18
Fernandina Beach	4,86	16.29
Flagler Beach	4.86	16. <del>29</del>
Fort George	6.03	20.41
Fort Lauderdale	6.39	21.69
Fort Pierce	5.28	17.75
Gainesville	5.49	18,54
Geneva	5.70	19.18
Graceville	4.86	16.29
Green Cove Springs	4.86	16.29
Gulf Breeze	5.49	18.54
Havana	5.49	18.54
Hawthome	5.28	17.75
Hobe Sound	5.49	18.54
Holley-Navarre	5.49	18.54
Hollywood	6.39	21.69
Homestead	6.39	21.69
Islamorada	5.04	17.04
Jacksonville	6.18	20.86

Note 1: For the message rate service Local Calling Area, the local monthly message allowance per Business Message Rate line is 75, with an additional message charge of \$.12 for each local message over the allowance. For Residence Message Rate, the monthly local message allowance per line is 30 with an additional message charge of \$.10 for each outgoing local message over the allowance.

Note 2: Business Message Rate Service is not offered to new customers during local exception in A3.8 of this Tariff.

⁴ d/b/a SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY

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ISSUED: December 14, 1994 BY: Joseph P. Lacher, President - FL Miami, Florida **GENERAL SUBSCRIBER SERVICE TARIFF** 

Thirty Sixth Revised Page 31 Cancels Thirty Fifth Revised Page 31

EFFECTIVE: February 12, 1995

**(I)** 

#### A3. BASIC LOCAL EXCHANGE SERVICE

# A3.5 Message Rate Service (Cont'd)

#### A3.5.2 Monthly Rates and Message Charges (Cont'd)

C. Residence and Business Individual Line Monthly Rates by Exchange for Message Rate Service¹ (Cont'd)

 Exchange	Residence	Business
Jacksonville Beach	<b>\$</b> 6.03	20.41
Jay	5.04	17.04
Jensen Beach	5.28	17.75
Julington	6.03	20.41
Jupiter	6,03	20.41
Key Largo	5.04	17.04
Key West	5.04	17.04
Keystone Heights	4.86	16.29
Lake City	5.04	17.04
Lynn Haven	5.28	17.75
Marathon	4.86	16.29
Maxville	6.03	20.41
Melbourne ²	5.70	19.18
Miami	6.39	21.69
Micanopy .	5.28	17.75
Middleburg	6.03	20.41
Milton	5.49	18.54
Munson	5.49	18.54
Newberry	5.28	17.75
New Smyrna Beach	5.04	17.04
North Dade	6.39	21.69
North Key Largo	4.86	16.29
Oak Hill	5.04	17.04
Old Town	4.62	15.46
Orange Park	6.03	20.41
Orlando	6.27	21.31
Oviedo	6.27	21.31

Note 1: For the message rate service Local Calling Area, the monthly local message allowance per Business Message Rate line is 75, with an additional message charge of \$.12 for each local message over the allowance. For Residence Message Rate, the monthly local message allowance per line is 30 with an additional message charge of \$.10 for each outgoing local message over the allowance.

Note 2: Business Message Rate Service is not offered to new customers served from the Melbourne exchange during local exception in A3.8.

[#] d/b/a SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY

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Thirty Ninth Revised Page 31.1 Cancels Thirty Eighth Revised Page 31.1

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# A3. BASIC LOCAL EXCHANGE SERVICE

## A3.5 Message Rate Service (Cont'd)

# A3.5.2 Monthly Rates and Message Charges (Cont'd)

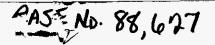
C. Residence and Business Individual Line Monthly Rates by Exchange for Message Rate Service¹

Exchange	Residence	Business
Pace	\$5.49	\$18.54
Pahokee	4.86	16.29
Palatka	5.04	17.04
Palm Coast	4.86	16.29
Panama City	5.28	1 <b>7.75</b>
Panama City Beach	5.28	17.75
Pensacola	5.49	18.54
Perrine	6.39	21.69
Pierson	5.04	17.04
Pomona Park	5.04	17.04
Pompano Beach	6.39	21.69
Ponte Vedra Beach	6.03	20.41
Port St. Lucie	5.49	18.54
St. Augustine	5.04	17.04
Sanford	5.88	19.81
Sebastian	5.49	18.54
Stuart	5.49	18.54
Sugarloaf Key	5.04	17.04
Sunny Hills	4.86	16.29
Titusville ²	5.28	1 <b>7.75</b>
Trenton	4.86	16.29
Vernon	4.86	16.29
Vero Beach	5.28	17.75
Weekiwachee Springs	5.28	17.75
Welaka	5.04	17.04
West Palm Beach	6.18	20.86
Yankeetown	5.04	17.04
Youngstown-Fountain	5.28	17.75
Yulee	6.03	20.41

Note 1: For the message rate service Local Calling Area, the local monthly message allowance per Business Message Rate line is 75, with an additional message charge of \$.12 for each local message over the allowance. For Residence Message Rate, the monthly local message allowance per line is 30 with an additional message charge of \$.10 for each outgoing local message over the allowance.

Note 2: Business Message Rate Service is not offered to new customers during local exception in A3.8.

**(I)** 



#### Unbundled Switch Ports

#### Network Service Description

(Technical Service Description)

#### 1.0 Overview

Unbundled Switch Port is a service which enables an Other Local Exchange Carrier (OLEC) to utilize an existing BellSouth switching system to provide dial tone, call origination, and call termination services to the OLEC's customers on the OLEC's outside plant distribution network. This service is offered in support of initiatives by State and Federal Regulators to further open the telecommunications market to local competition.

#### 2.0 Service Description

The Unbundled Switch Port is the physical termination of a customer's transport facility on an existing BellSouth local switching machine (No. 1A ESS, 5ESS, DMS100, or EWSD). The OLEC will deliver to BellSouth a 2 wire customer loop. BellSouth will then terminate this local loop on the switch port and provide the functions listed below as part of this service:

- dial tone, talking current
- digit collection
- routing and signaling
- ringing, both audible and power
- usage message recording

The OLEC will obtain from the North American Numbering Plan Administrator NPA-NXX directory numbers for OLEC customer's served by this Unbundled Switch Port service. This OLEC NPA-NXX will be dedicated to one BellSouth switch, and can not be used by BellSouth for BellSouth customers.

The preferred interface between BellSouth and the OLEC is a DS-1 level transmission facility. The OLEC will deliver the above local loops to the OLEC POI in the BellSouth wire center on a DS-1 facility. BellSouth will then use a D4 channel bank to demultiplex these OLEC customer circuits to a 2 wire voice frequency cable pair.

4 Wire Integrated Digital Loop Carrier switch ports will be offered at a later date. These ports utilize 4 wire DS-1' interfaces which are defined in Bellcore TR-TSY-00008 and Bellcore TR-TSY-0303.

**ISEN** interfaces, both the 2 wire Basic Rate Interface and the 4 wire Primary Rate Interface, are under consideration.

A 4 wire DS-1 trunk port may also be offered at a later date.

3.0 Architecture

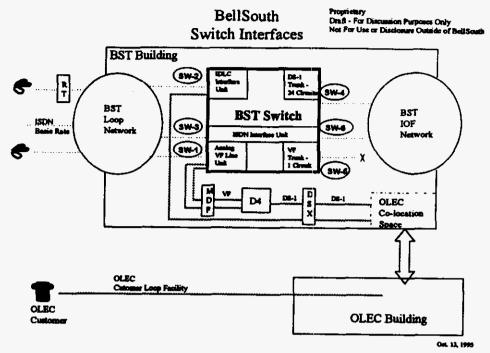
Please reference the following diagram.

FLORIDA PUBLIC SERVICE COMMISSION

NO. 450984 P EXHIBIT NO. 18
WITNESS BS SCHOOL 18

DATE:

10/27/95



The OLEC will deliver its customer loops to BellSouth at the POI, typically a DSX frame. BellSouth will demultiplex the DS-1 signal to VF, cross connect to the Main Distributing Frame, and then terminate the 2 wire circuit at the analog line interface unit (SW-1 in the diagram).

BellSouth will offer a DS-1' interface for Integrated Digital Loop Carrier systems using Bellcore TR-TSY-00008 and TR-TSY-0303 standards at a later date (SW-2). Unbundling of the 2 wire Basic Rate ISDN interface (SW-3) is under consideration.

Other interfaces shown in the above diagram (SW-4 through SW-6) are on the "trunk side" of the switch. These interfaces are used to connect an OLEC switch to a BellSouth switch. These interfaces are described in the <u>Interconnect Tariff</u>.

### 4.0 Equipment

Equipment required to offer this service will be the switching system installed in the wire center. This equipment will be one of the following types: No. 1A ESS, No 2B ESS, 5ESS, and its remotes, DMS100, and its remotes, DMS100, and its remotes.

The 4 wire Integrated Digital Loop Carrier interface is not available from No. 1A ESS or No. 2B ESS. The 4 wire DS-1 trunk interface is not available from No. 2B ESS. The ISDN interface is not available from No. 1A ESS, No. 2B ESS, DMS10, or DCO.

A D4 channel bank is also required to serve these customers. The D4 Channel bank will multiplex up to 24 customers onto one DS-1 digital facility for handoff to the OLEC at the OLEC POI.

TR-08 and TR-303 are Bellcore Technical References that describe in much detail the signaling, performance, and other technical interfaces for integrated digital loop carrier systems. Modes 1 and 2 represent unconcentrated and concentrated methods of operation for the TR-08 system.

#### 5.0 OA&M Support

10/27/95

To be provided.

#### 6.0 Network Disclosure

BellSouth Legal has determined that Network Interface Disclosure is not applicable in this situation because this is a carrier to carrier interface and not an end user interface.

### 7.0 Transport Requirements

The DS-1 from the BellSouth Channel Bank to the OLEC will be connected to the OLEC's equipment at the DSX which represents the OLEC's Point of Interface (POI) to BellSouth. The OLEC is responsible for transporting the circuit from the POI to the OLEC distribution network.

Prepared by: Rob McKibben 205-977-5042



Rob McKibben /AL, BRHM06 10/12/95 14:54

Page 1

MESSAGE

Subject: hunting?

Sender: Rob McKibben / AL, BRHM06

Dated: 10/12/95 at 09:38 Contents: 2

PHONE-1=205-977-5042:

Part 1

FROM: Rob McKibben / AL, BRHM06

PHONE-1=205-977-5042;

TO: Bob Flood / AL, BRHM08

PHONE-1=(404) 529-5566;

Jerry G. Latham / AL, BRHM06

PHONE-1=(205) 977-2213;

CC: JOHN DAVIS

O=BCI; P=BCI; PHONE-1=(404) 330-0401;

Part 2

Bob and Jerry,

I participated on a conference call re: unbundled ports. The question was asked; will we provide multiline hunting for a business customer who is a customer of an OLEC? I responded that we want to accommodate the OLECs, but there may be some services, such as ESSX, that will not be offered on an unbundled basis. Should the unbundled port team include multilne hunting as an option for the port? This question is really just the tip of the iceberg. I'm sure that the Shared Tenant Service tariff has many more options that could apply to OLECs.

The question was also asked who will write the service orders for this stuff? I said the ICSC. Is that correct for ALL resale, unbundled, and interconnect services?

I agreed to write a Technical Service Description for this service. They will ask Jerry Latham to provide the Marketing Service Description.

At this time we are only addressing the 2 wire local loop port. 4 wire trunks and 2/4 wire ISDN are not going to be in the initial filing package.

Rob

Rob McKibben /AL, BRHM06 10/13/95 14:09

Page 1

Contents: 2

Dated: 10/13/95 at 09:57

REPLY

Subject: hunting?

Sender: Jerry G. Latham / AL, BRHM06 PHONE-1=(205) 977-2213;

Part 1

TO: Rob McKibben / AL, BRHM06

CC: JOHN DAVIS

O=BCI; P=BCI;

Bob Flood / AL, BRHM08

Part 2

The service orders will be taken by the OLEC service center in Atlanta. It is collocated with the ICSC but will have a dedicated staff/facilities, etc.

I think from a policy perspective, we could provide hunting, however, unless it can easily be added to the tariffs we plan to file in Oct/Nov, I would say it needs to be addressed at a later date.

We can talk more on this at the next RUIN-IT meeting.

Thanks

Rob McKibben /AL, BRHM06 10/12/95 13:39

Page 1

MESSAGE

Subject: NSD for Ports

Sender: Rob McKibben / AL, BRHM06 PHONE-1=205-977-5042; Dated: 10/12/95 at 13:02 Contents: 3

Part 1

FROM: Rob McKibben / AL, BRHM06

PHONE-1=205-977-5042;

TO: JOHN DAVIS

O=BCI; P=BCI; PHONE-1=(404) 330-0401;

CC: Vic Atherton / AL, BRHM06

Jerry G. Latham / AL, BRHM06

PHONE-1=(205) 977-2213;

JANE RAULERSON / BRIDGE (RAULERSON JEALTE)
PHONE-1=(205) 977-3153;

BCC: James V. Jackson / AL, BRHM08

PHONE-1=205 977-5032;

Part 2

John,

Attached is the Network Service Description for an Unbundled Switch Port for Project Harmonize. This is a word for windows 2.0 document.

The attached is a framework that the Network SME on your product team can expand upon. This architecture has been in use for a long time and indentifying hardware cost elements should be readily available. M&Ps to make this work between BellSouth and the OLEC is what needs the most attention right now in my opinion. Someone from Jan Hester's team may be able to help.

Call me if you need more help from me.

Rob 205-977-5042

Jane, I'll bring you a paper copy.

Part 3

This item is of type BINARY FILE and cannot be displayed as TEXT

```
Rob McKibben /AL, BRHM06 10/12/95 14:54
```

Page 1

REPLY

Dated: 10/12/95 at 14:31

Contents: 2

Subject: hunting? Sender: Bob Flood / AL, BRHM08 PHONE-1=(404) 529-5566;

Part 1

TO: Rob McKibben / AL, BRHM06

PHONE-1=205-977-5042;

CC: JOHN DAVIS

O=BCI; P=BCI; PHONE-1=(404) 330-0401;

Bob Flood / AL, BRHMOS

PHONE-1=(404) 529-5566;

Jerry G. Latham / AL, BRHM06 PHONE-1=(205) 977-2213;

Part 2

Rob.

Yes, the unbundled port tariff has to include rotary service, ARA hunting, for both business lines and residence lines. PBX trunks already include hunting.

I also understand that all of these orders will go thru the current version of the ICSC.

PCM if Q's.

Thanks,

Bob

Eno and Derl

The attached chart is based on the discussion that we just had (10/23/95, 2:30 pm).

Eno, did ya'll decide to do scenario "A" one way and scenario "B" another way? Did ya'll add more scenarios? Did ya'll junk these charts?

Derl, would you please put your rate elements and rates on this chart and fax it back? (I'm through with trying to send electronic messages and files from Microsoft/Openmail to Lotus/Notes!!) My fax number is 977-7222.

Thanks,

Rob

F18C01Z

0000009

10/23/95 JRM



# BellSouth Telecommunications

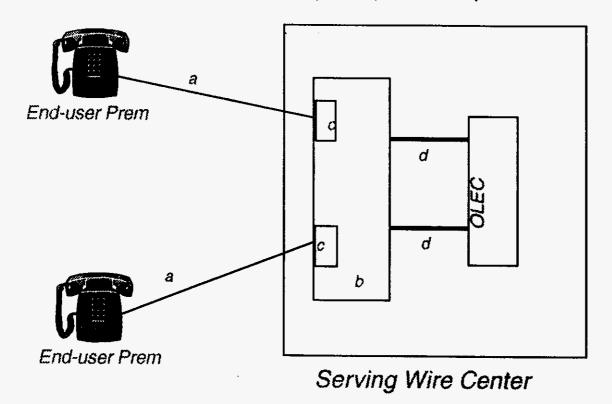
3535 COLONNADE PARKWAY BIRMINGHAM, ALABAMA 35243

٥	(including cover)  ATE: 10-23-95 # OF PAGES: 3	
	(including cover)  ATE: 10-23-95 # OF PAGES: 3  TO: Derl Nelson Eno Landry  TEL #: FAX #: 444-0604	Ŧ
	COMMENTS: pls make a copy of each	
	FROM: <u>Rob McKibben</u> TEL #:	
3.	COMMENTS:	

# PLEASE CALL FOR PICKUP

IF YOU HAVE ANY PROBLEMS, CALL 977-5047
OUR FAX MACHINE IS A DEX EXPRESS 6100 FUJITSU
OUR FAX MACHINE # IS: (205) 977-7222

# Access via Unbundled Loop Channelization System (Same SWC)



Element	Description	NRC	Monthly	USOC
a*	Unbundled Exchange Access Loop	\$71.00	\$ 21.00	
b**	Unbundled Loop Channelization System	\$490.00	\$555,00	
C#	Unbundled Loop Central Office Channel	•		
	Interface	\$ 7.00	\$ 1370	
d	T1' Co-Location Cross Connect	•	\$ 750	

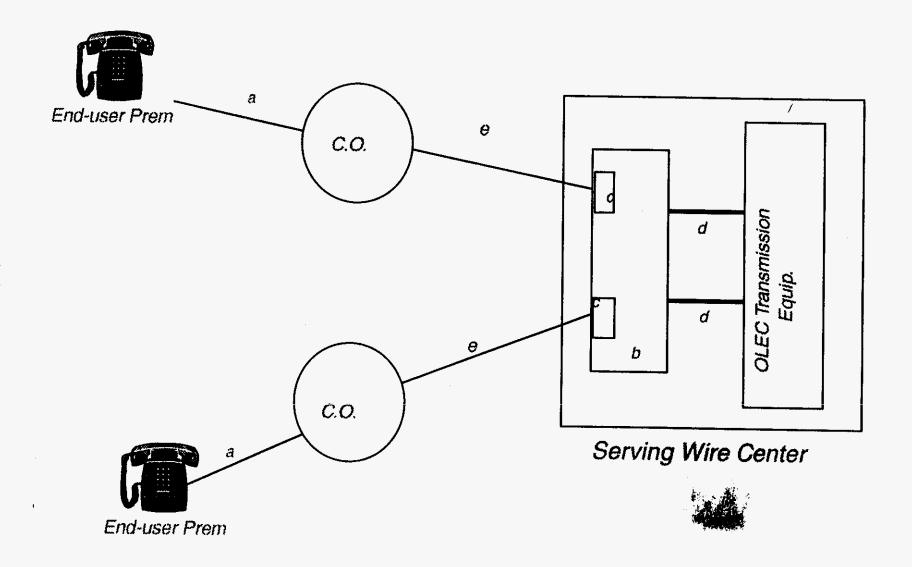
^{*}One Unbundled Exchange Access Loop per customer device

[&]quot;One Channelization System Charge per 96 loops

[#]One Unbundled C.O. Interface per Access Loop

^{***}Assumed rate based upon currrent DS1 Cross Connect rate element.

# **Unbundled Exchange Access Loop - Different Wire Centers**



# Unbundled Exchange Access Loop (Different Wire Centers) - Pricing

Element	Description	NRC	Monthly
a*	Unbundled Exchange Access Loop	\$71.00	\$ 21.00
b**	Unbundled Loop Channelization System	\$490.00	\$555,00
C#	Unbundled Loop Central Office Channel	Ψ.ν.υ	VV,666¢
	Interface	\$ 7.00	\$1.70
đ	T1' Co-Location Cross Connect		\$7.50***
e##	Voice - Interoffice Channel (Fixed)	\$87,00	\$28.50
	Voice - Interoffice Channel (Per Mile)	Ψ017.00	·
	and the state of the state of		\$ 1.65

^{*}One Unbundled Exchange Access Loop per customer device

^{##}Interoffice Channel Fixed rate and per mile will apply per unbundled loop served from a foreign C.O.

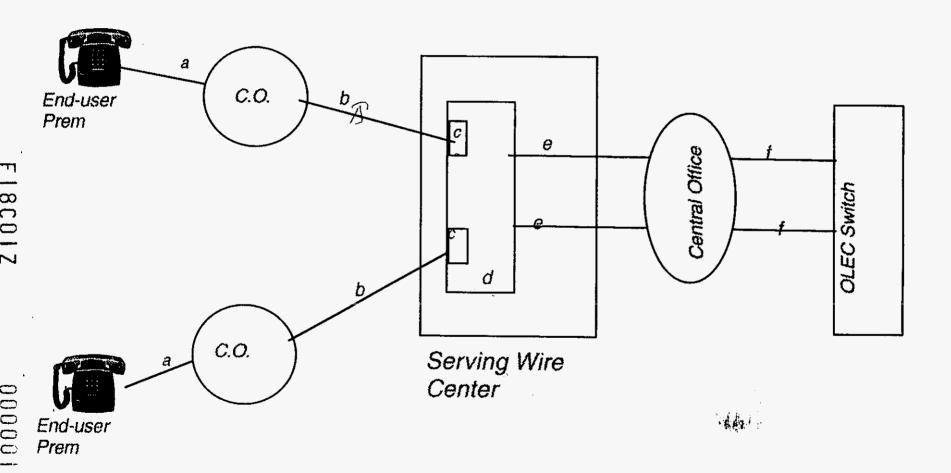


^{**}One Channelization System Charge per 96 loops

[#]One Unbundled C.O. Interface per Access Loop

^{***}Assumed rate based upon currrent DS1 Cross Connect rate element.

# Unbundled Exchange Access Loop - OLEC not Co-Located



# Unbundled Exchange Access Loop - OLEC not Co-Located (edit)

Element	Description	NRC	Monthly	
a^	Unbundled Exchange Access Loop	\$71.00	\$ 21.00	
b##	Voice - Interoffice Channel (Fixed)	\$87.00	\$28.50	
<del></del>	Voice - Interoffice Channel (Per Mile)		\$ 1.65	
c#	Unbundled Loop Central Office Channel			
	Interface	\$ 7.00	\$ 1.70	
d**	Unbundled Loop Channelization System	\$490,00	\$ 555,00	
Ð	1.544 Interoffice Channel (fixed per channel)	\$200.00	\$ 64.35	
	1,544 Interoffice Channel Per Mile	even-	\$ 29.80	ff
f	Digital 1.544 Loop Carrier Local Channel (First)	\$745.00	\$140.90	
	Digital 1.544 Loop Carrier Local Channel (additional)	\$335.00	\$140.90	

#One Unbundled C.O. Interface per Access Loop

##Interoffice Channel Fixed rate and per mile will apply per unbundled loop served from a foreign C.O.



^{*}One Unbundled Exchange Access Loop per customer device

^{**}One Channelization System Charge per 96 loops

October 6, 1995

To:

Sharon Irwin Jane Raulerson

From: Rob McKibben

Subject: Network Service Descriptions for Unbundled Local Loop, and Concentrated Unbundled Local

Loop

œ:

Jerry Latham

Roger DeVille Gary Tennyson

Derl Nelson **Ed Jones** 

**David Brady** 

Jane Raulerson

Vic Atherton

Sharon, attached are Network Service Descriptions for the Unbundled Local Loop Service and the Concentrated Unbundled Local Loop Service. As you know (and for the benefit of those that don't), Network Service Description is the new name for a Technical Service Description in the Interdepartmental Service Description of the revised Product Management process.

The attached are frameworks that the Network SME on your product team can expand upon. Since I am not familiar with the role of this document in your product management process, I hesitate to try and describe something that may not be useful for your purposes (should some of the other information that I provided you on Wednesday be used in this service description?). For both of these services the Bellcore TR-008 and TR-303 documents may offer the best and most complete information. Also, Roger DeVille and Gary Tennyson are preparing a relatively comprehensive network disclosure article that could be incorporated into this Network Service Description.

The architectures for these services have been in use for a long time and identifying hardware cost elements should be readily available. M & P's to make this work between BellSouth and the OLEC is what needs the most attention right now in my opinion. Perhaps someone on Jan Hester's team could help with this?

Call me if I can help further.

Rob



# Unbundled Local Loop

# **Network Service Description**

(Technical Service Description)

#### 1.0 Overview

Unbundled Local Loop is a service which permits an Other Local Exchange Carrier (OLEC) to utilize the existing BellSouth distribution network to connect its customers to the OLEC switch. This service is offered in support of initiatives by State and Federal Regulators to further open the telecommunications market to local competition.

#### 2.0 Service Description

Land line customers are connected to their preferred telecommunications provider by a 2 wire physical metallic conductor between the customers' premises and the telecommunications provider's switch. The service provider may, at his option, multiplex the customers access facility to a higher bandwidth system to achieve cost efficiencies. At the telephone company's central office building housing the switching system, the customer's channel is, demultiplexed if necessary and, cross connect through the Main Distributing Frame (MDF) to the switch.

This Unbundled Local Loop service breaks the physical connection to the customer at the MDF and reconnects the circuit to the equipment of the OLEC. The OLEC then transports the circuit as necessary to the OLEC switching system.

The hand-off to the OLEC from BellSouth will be provided at the DS-1, or higher, signal rate. To accomplish this, BellSouth will combine multiple OLEC customer facilities onto a channel bank which will present to the OLEC a DS-1 signal. Various technologies are available to perform this function including; D4, Mode 1 TR-08 Digital Loop Carrier, and TR-303.

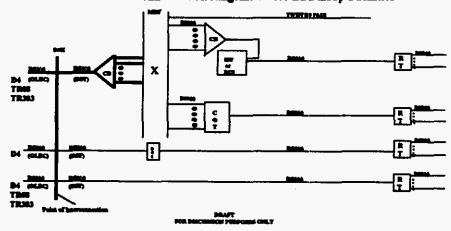
This Unbundled Local Loop service provides a dedicated full time path from the OLEC interface to the OLEC customers. Please reference the Concentrated Unbundled Local Loop service if a traffic engineered service is desired.

#### 3.0 Architecture

Please reference the following diagram.



# Possible Interconnection Arrangements for BST Loop Facilities



The majority of existing BellSouth customers are served via the twisted pair architecture shown at the top of this diagram. The Unbundled Local Loop service for these customers will break the existing connection at the MDF and reconnect the circuit to the Channel Bank (CB) shown on the left.

Existing BellSouth customers not served by twisted pair are served via some form of Digital Loop Carrier (DLC). The primary components of DLC are: the Remote Terminal (RT) (shown on the left in this diagram), and a Central Office Terminal (COT). The COT is required in central offices which have analog switching systems. Integrated COT functions (IDT - Integrated Digital Terminal) are available in digital switching systems.

In some cases the OLEC and BellSouth may prefer to extract the customer's channel from the DS-1 facility and reroute the circuit to the OLEC using a Digital Cross Connect (DCS) system. This architecture involves one less stage of analog to digital conversion, which results in less transmission degradation.

where sufficient OLEC customers exist in a serving area, the OLEC and BellSouth may an RT to the OLEC, and cross connect the SLC DS-1 directly to the OLEC.

4.0

Equipment required to offer this service depends upon the loop architecture serving the existing customer's area. The majority of existing BellSouth customers are served with 2 wire twisted pair copper facilities.

A D4 channel bank is also required in order to serve these twisted pair customers. The D4 Channel bank will multiplex up to 24 customers onto one DS-1 digital facility. The D4 architecture is also used in some scenarios involving DLC.

Customers in areas served via DLC are served on one of the following types of DLC:

10/6/95

Universal TR-08 Mode 1 Universal TR-08 Mode 2 Integrated TR-08 Mode 1 Integrated TR-08 Mode 2 Universal TR-303 Integrated TR-303

TR-08 and TR-303 are Belicore Technical References that describe in much detail the signaling, performance, and other technical interfaces. Modes 1 and 2 represent unconcentrated and concentrated methods of operation for the TR-08 system.

#### 5.0 OA&M Support

To be provided.

#### 6.0 Network Disciosure

BellSouth Legal has determined that Network Interface Disclosure is not applicable in this situation because this is a carrier to carrier interface and not an end user interface.

#### 7.0 Transport Requirements

The DS-1 from the BellSouth Channel Bank to the OLEC will be connected to the OLEC's equipment at the DSX which represents the OLEC's Point of Interface (POI) to BellSouth. The OLEC is responsible for transporting the circuit from the POI to the OLEC switch.

Prepared by: Rob McKibben 205-977-5042



# Concentrated Unbundled Local Loop

#### **Network Service Description**

(Technical Service Description)

#### 1.0 Overview

Concentrated Unbundled Local Loop is a service which permits an Other Local Exchange Carrier (OLEC) to utilize the existing BellSouth distribution network to connect its customers to the OLEC switch and by using a minimal amount of interoffice capacity. This service is offered in support of initiatives by State and Federal Regulators to further open the telecommunications market to local competition.

#### 2.0 Service Description

Land line customers are connected to their preferred telecommunications provider by a 2 wire physical metallic conductor between the customers' premises and the telecommunications provider's switch. The service provider may, at his option, multiplex the customers access facility to a higher bandwidth system to achieve cost efficiencies. At the telephone company's central office building housing the switching system, the customer's channel is, demultiplexed if necessary and, cross connected through the Main Distributing Frame (MDF) to the switch.

This Concentrated Unbundled Local Loop service breaks the physical connection to the customer at the MDF, multiplexes many circuits onto a DS-1 facility, and reconnects the circuit to the equipment of the OLEC. The OLEC then transports the circuit as necessary to the OLEC switching system.

The hand-off to the OLEC from BellSouth will be provided at the DS-1, or higher, signal rate. Various technologies are available to perform this function including; Mode 2 TR-08 Digital Loop Carrier, and TR-303 Digital Loop Carrier.

This Concentrated Unbundled Local Loop service provides a time shared path from the OLEC interface to the OLEC customers. Please reference the Unbundled Local Loop service if a dedicated full time service is desired.

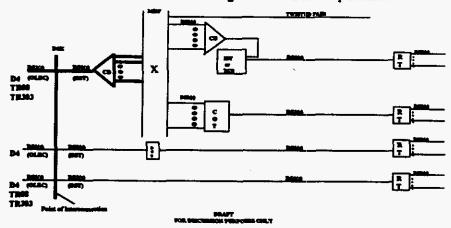
#### 3.0 Architecture

Picase reference the following diagram.



10/6/95

#### Possible Interconnection Arrangements for BST Loop Facilities



The majority of existing BellSouth customers are served via the twisted pair architecture shown at the top of this diagram. The Unbundled Local Loop service for these customers will break the existing connection at the MDF and reconnect the circuit to the Channel Bank (CB) shown on the left.

Existing BellSouth customers not served by twisted pair are served via some form of Digital Loop Carrier (DLC). The primary components of DLC are: the Remote Terminal (RT) (shown on the left in this diagram), and a Central Office Terminal (COT). The COT is required in central offices which have analog switching systems. Integrated COT functions (IDT - Integrated Digital Terminal) are available in digital switching systems.

In some cases the OLEC and BellSouth may prefer to extract the customer's channel from the DS-1 facility and reroute the circuit to the OLEC using a Digital Cross Connect (DCS) system. This architecture involves one less stage of analog to digital conversion, which results in less transmission degradation.

Finally, where sufficient OLEC customers exist in a serving area, the OLEC and BellSouth may deflicate an RT to the OLEC, and cross connect the SLC DS-1 directly to the OLEC.

4.0

Equipment required to offer this service depends upon the loop architecture serving the existing customer's area. The majority of existing BellSouth customers are served with 2 wire twisted pair copper facilities.

A Mode 2 TR-08 or a TR-303 channel bank is required in order concentrate these twisted pair customers. The channel bank will multiplex many customers, the exact quantity is dependent upon technology, onto one DS-1' (DS-1 Prime) digital facility.

Customers in areas served via DLC are served on one of the following types of DLC:

10/6/95

Universal TR-08 Mode 1 Universal TR-08 Mode 2 Integrated TR-08 Mode 1 Integrated TR-08 Mode 2 Universal TR-303 Integrated TR-303

TR-08 and TR-303 are Bellcore Technical References that describe in much detail the signaling, performance, and other technical interfaces. Modes 1 and 2 represent unconcentrated and concentrated methods of operation for the TR-08 system.

#### 5.0 OA&M Support

To be provided.

#### 6.0 Network Disclosure

BellSouth Legal has determined that Network Interface Disclosure is not applicable in this situation because this is a carrier to carrier interface and not an end user interface.

#### 7.0 Transport Requirements

The DS-1' from the BellSouth Channel Bank to the OLEC will be connected to the OLEC's equipment at the DSX which represents the OLEC's Point of Interface (POI) to BellSouth. The OLEC is responsible for transporting the circuit from the POI to the OLEC switch.

Prepared by: Rob McKibben 205-977-5042



Rob McKibben /AL, BRHM06 10/5/95 16:28

Page 1

MESSAGE Dated: 10/04/95 at 13:24

Subject: UBL Concentration Technical Service Description

Contents: 2

Sender: Jerry G. Latham / AL, BRHM06 PHONE-1=(205) 977-2213;

#### Part 1

TO: Bob Flood / AL, BRHM08
Rob McKibben / AL, BRHM06
JANE RAULERSON / BRIDGE (RAULERSON J@ALTE)
STEPHANIE REARDON / BRIDGE (REARDON S@ALHR)
John A. Ruscilli / AL, BRHM08
BOB SCHEYE / BRIDGE (SCHEYE_R@TNAA)
Mario L. Soto / AL, BRHM08

#### Part 2

We have an urgent need for a TSD on the UBL concentration feature. We plan to offer the TR-303 version of the SLC. Do any of you know if a TSD exist today on this equipment/service.

If not, Rob and Jane, I need to know who is a good network operations person that knows about this stuff that we can lend to the UBL team for the purpose of writing a TSD very quickly!

Thanks

Jerbo

July 28, 1995

To:

Derl Nelson

Sharon Davis

cc:

11

Jerry Latham Craig Cook

From:

Rob McKibben

Subject: Unbundled Loops for Project Harmonize

Attached is a memo that describes the architecture required to unbundle a BellSouth loop to give to an Other Local Exchange Carrier (OLEC).

As you may be aware, the corporate position on unbundling local loops is that these loops are available today from the special access tariff.

In a recent RUIN-IT (Resale, Unbundling, Interconnect, Negotiations - Implementation Team) meeting, it was stated that a special access line would not work for providing dial tone. The solution that came out of the RUIN-IT team meeting is for me to give you a copy of these pictures and tell you to fix it. I really don't think that that is the answer, but you now have the package and WE can start figuring out what really has to be done.

Rob



July 25, 1995

To:

**Bob Scheye** 

From:

Rob McKibben

Subject: Unbundled Loop Concentration Question

The attached should close out the question on providing concentration for unbundled loops that you gave to Vic/me on 7/21.

Ed Jones (205-977-5059) is the primary point of contact for Harmonize loop technical issues if we need to pursue this further.

# Rob

cc: Vic Atherton **Ed Jones** John Jackson John Krupsky



July 25, 1995

# Ouestion from the Harmonize Negotiation Team:

Can we, should we, and if so, how will we provide concentration for unbundled loops to an OLEC (Other Local Exchange Carrier)?

# Technical Issues Team response:

Yes, BST can provide concentration for unbundled loops to an OLEC.

(BST can concentrate loops from a given wire center onto a digital transport facility. BST cannot concentrate loops from multiple wire centers onto a single DS1 digital transport facility.)

- Yes, the Technical Issues Team recommends that BST should provide concentration for unbundled loops to an OLEC.
- 3. The actual method of providing this concentration will depend upon office specific capabilities, the current serving arrangement for each unbundled loop, and the OLEC's requirements. The Technical Issues team has documented 57 loop serving arrangements and 6 loop interfaces in Technical Issue Sheet 3.05, attached.

BellSouth desires that all interfaces with an OLEC to be at the DS1, or higher, rate. The Channel Bank shown on the attached diagram may be a D4 channel bank, a Mode 1 TR-08 or Mode 2 TR-08 channel bank, or some other multiplexer (chosen by the OLEC from a list of BellSouth standards).

Since providing this concentration and/or multiplexing function will cause BellSouth to incur additional costs, the Technical Issues team encourages the Harmonize Pricing and Tariffing team to ensure that these costs are covered in the tariffs. The Technical Issues team suggests that the OLEC should order an unbundled loop via one tariff element and the concentration/multiplexing ordered as a part of the transport interface tariff element.

file: loopconc.doc

# **Project Harmonize Technical Issues Team**

Issue Category:

Interconnection and Unbundling (Local Exchange Services)

**Category Number:** 

Issue Statement:

What are the interconnection points and issues associated with the

various local loop options between BST and alternate providers?

Issue Number:

Champion:

John Krupsky

Phone:

205-977-7148

Contact(s):

Ed Jones, John Jackson, Tom Appleby, Steve Sauer, Glenn

Stewart

Phone:

205-977-5059, 5043, 7188, 7209, 404-529-2670

Description:

Drawings of local loop configurations, both existing and future, will be analyzed for requested and potential interconnection points. Each serving arrangement and interconnection alternative will be documented for advantages, disadvantages, equipment constraints, compatibility issues, operations impacts, economics, and consistency with network evolution plans.

Solution Alternatives:

Numerous

Solution Implications:

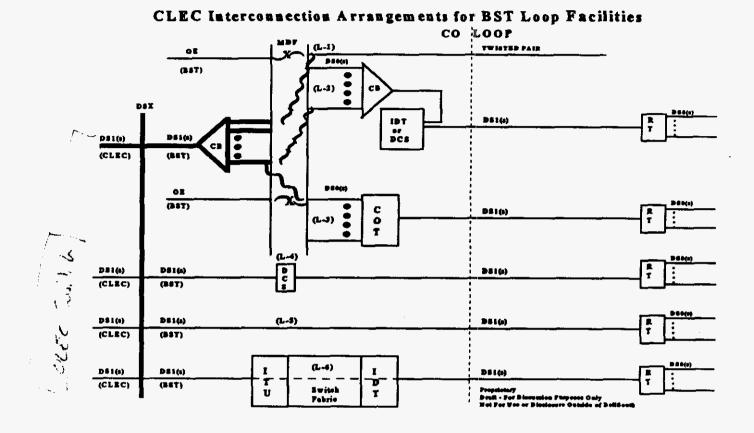
Select a first choice alternative for each interconnection Recommendations: arrangement based on technical constraints, economics, and corporate strategy.

Week	Status
April 3	Distributed copies of IILC Issue 026 report "Long Term Unbundling and Network Evolution" to 13 core or consulting members of Technical Issues team to support their development of unbundling and interconnection alternatives. Developed first draft of work plan and made available on IP LAN for team member review and inputs. Distributed draft issues report to team members. Scheduled two meetings during week of April 10 for subteam to develop interconnection drawings. Worked on grouping of issues from categories 3 & 4 into consolidated categories: switch, interoffice facilities, loop, signaling & control, operations systems, and general issues.
April 10	Conducted subteam meetings on April 11 and 13 to diagram selected alternatives for physical interconnection arrangements involving interface to a CLEC's switch

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	accessing LEC loop facilities including voice- grade copper, IDLC, NGDLC, and SONET ring with broadband switch with multiple RDTs. Identified assumptions and issues associated with each alternative.
April 17	Subteam met April 17 and developed sketches for 57 serving arrangements with various interconnection alternatives. Subteam working to document outputs
April 24	
May 1	
May 8	
May 15	
May 22	
June 5	
June 12	Attached drawing and notes.
June 19	
June 26	
July	
August	
September	
October	
November	
December	

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#### **CLEC Interconnection Arrangements for BST Loop Facilities**

L-1
In this interconnection arrangement, a customer's facility is provided entirely over Twisted Pair (TP) copper cable. The pairs terminate on the Main Distributing Frame (MDF) and can be cross-connected to a dedicated Channel Bank (CB) which digitizes the signal and multiplexes it up to the DS1 rate signal for interconnection with the Competitive Local Exchange Carrier (CLEC).

In this interconnection arrangement, the transport DS1s of a Digital Loop Carrier (DLC) Remote Terminal (RT) are directly integrated into our digital Central Office (CO). However, the DS1s lines first pass through a device which has electrical cross-connect capabilities. This is either a Digital Cross-Connect System (DCS) or a peripheral [generically called an Integrated Digital Terminal (IDT] in the CO equipped with this capability. This permits electronic "grooming" of individual DSOs to a DS1 that is typically terminated on a CB. For low penetration levels, this would allow unbundling of individual pairs by then cross-connecting at the MDF to a dedicated CB for interconnection with the CLEC at the DS1 rate.

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#### L-3

In this interconnection arrangement, the customer's facility is provided over Universal DLC. The Central Office Terminal (COT) converts the digital signals back to analog and terminates them as derived pairs on the MDF. This permits cross connection to a dedicated CB for interconnection with the CLEC at the DS1 rate.

#### L-4

In this interconnection arrangement, the transport DS1s of a integrated DLC RT pass through a DCS. For medium penetration levels, unbundled DSOs can be cross-connected to dedicated DS1s for interconnection with the CLEC.

#### L-5

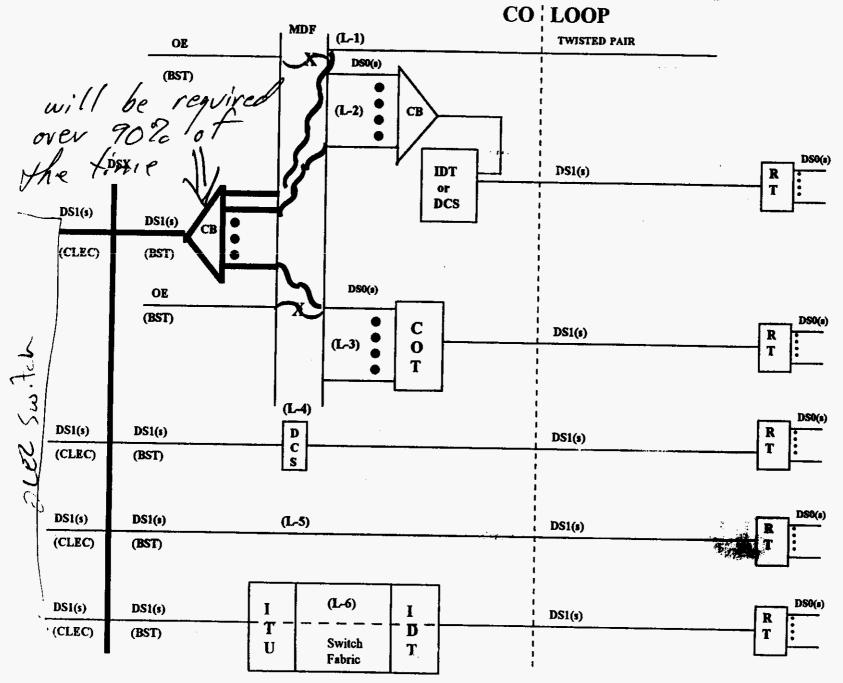
In this interconnection arrangement, for large penetration levels, an entire dedicated system of DLC at the RT would be used to transport the unbundled customers back to our CO. This could be a physical RT of conventional DLC, or a virtual RT of Next Generation Digital Loop Carrier (NGDLC). The DS1s would be transported back to our CO for interconnected to the CLEC.

#### L-6

In this interconnection arrangement, individual DSOs served over integrated DLC can be unbundled by a semi-permanent connection through the switch (nail-up) or by interconnection only for duration of the call (cut-through).

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# **CLEC Interconnection Arrangements for BST Loop Facilities**



#### INTEROFFICE MEMORANDUM

Date:

24-Jul-1995 02:21pm CST

From:

Ed Jones

JONES_CE

Dept:

NETWORK PLNG & SUPP

Tel No:

205-977-5059

TO: MCKIBBEN, ROB

1

( ROB-MCKIBBEN!ALBRHM06 @ BRIDGE )

Subject: Concentrated Unbundled Loop

In all of our work to define the technical interconnection arrangements required to support unbundling the local loop, we assumed the handoff to the OLEC would always be a DS1, or higher, level signal. Given that, we found that we will almost always have to place a channel bank. It was also assumed that the OLEC would want to designate the format of the DS1s (from a list of standards). This will further require that we place the appropriate type of channel bank (e.g. Mode 1 TR-08, Mode 2 TR-08, D4, etc.) in the office. Given that we are talking about POTS service, we fully expect that the most common request from the OLECs will be for a Mode 2 (2 to 1 concentration) type of format. If you have questions or need additional information, please advise.

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Date Aug. 9 1995

Number of pages including cover sheet 13

FROM: Ed Welch

Total: 14

TO: Mr. Atherton (205) 977-7222

Mr. McCallan (205)977-0757

Mr. Latham (205) 977-8241

Mr. Reardon

Ms. Landis (205)945-0196

Call Arietta Council at

(404) 529-7200

BELLSOUTH

If this fax is not clear.

Phone

Fax Phone

Phone

(404) 529-7200

Fax Phone (404) 221-0823

CC:

REMARKS:

**Urgent** 

☐ For your review

☐ Reply ASAP

☐ Please Comment

For 10:00 (Eastern) Meeting TODAY

"Project Harmonize" w/ Ed Welch

* Mr. Atherton is in Meeting Room D.

# August 9, 1995

# Local Competition Unbundled Loop/Port

# **AGENDA**

- Introduction of Participants
- Purpose of Meeting

Initiate product development process

Identify product manager

- Project Harmonize background
- Product Diagram
- Product Guidelines
- Requirements/Expectations
- Open Discussion
- Product Manager
- Next Step
- Adj**our**n

# UNBUNDLED PRODUCTS AND SERVICES

Unbundled Exchange Line

# Provisions (How service is provided)

Unbundled exchange lines can be purchased from the Georgia Private Line Tariff or from section E7 of the State Access Service Tariff (Voice Grade Local Channel).

A Voice Grade channel is a channel that provides voice frequency transmission capability in the nominal frequency range of 300 to 3000 Hz and may be terminated two-wire. Voice Grade channels are provided between customer designated premises or between a customer designated premises and a Company Hub.

An Access Order is an order to provide the CLEC with Special Access Service or to provide changes to existing services.

# Relationships (Responsibilities of the parties)

The CLEC shall provide all information necessary for the Company to provide and bill for the requested service. In addition to the order information required in E5.2, the CLEC must also provide:

- Customer name and premise address
- Billing name and address (when different from customer name and address)
- Customer contact name(s) and telephone number(s) for the following provisioning activities: order negotiation, order confirmation, interactive design, installation and billing.

# Terms and Conditions

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The terms and conditions which apply for this service apply here, except that the Special Access Surcharge shown in section E7.5.8 will not apply.

E5.1.1 of the Georgia Access Service Tariff sets forth the regulations and order related charges for Access Orders for Special Access Services.

The time required to provision the service (i.e., the interval between the Application Date and Service Date) is known as the service interval. Such intervals will be established in accordance with published service date interval guidelines which are available to CLECs upon request, whether the CLEC's service is subject to standard or negotiated intervals. The CLEC may request a service date other than that established pursuant to the service date interval guidelines, and the Company, where possible, will establish the service date in accordance with such request, subject, however, to other applicable provisions of this tariff.

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# UNBUNDLED PRODUCTS AND SERVICES

Unbundled Exchange Line Page 2

### Price/Compensation Rates

There are three types of rates and charges, daily rates, monthly rates and nonrecurring charges.

Monthly rates are flat recurring charges that apply each month or fraction thereof that a Special Access Service is provided. Daily rates are flat recurring rates that apply to each 24 hour period or fraction thereof. Non-recurring charges are one-time charges that apply for specific work activity.

Voice Grade monthly charge is \$25.00 (GA Access Tariff rate)

Additional charges may apply to cross connect.

Noted Exceptions

State Specific Information (Where available)

# UNBUNDLED PRODUCTS AND SERVICES

Unbundled Exchange Line (Alternative to Special Access)

# Provisions (How service is provided)

BST could provide a new offering utilizing line side connections (single-line residence, single-line business, etc.) as a basis for its cost study and pricing recommendation.

# Relationships (Responsibilities of the parties)

# Terms and Conditions

The CLEC may not combine BST's Unbundled Exchange Line with BST's Unbundled Exchange Port unless the Unbundled Exchange Line is provisioned out of the Special Access or Private Line Tariff.

# Price/Compensation Rates

FCC Subscriber Line Charge (SLC) and the Carrier Common Line (CCL) charges (or surrogate) would be applied to the loop.

#### **Noted Exceptions**

State Specific Information (Where available)

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July 10, 1995

# UNBUNDLED PRODUCTS AND SERVICES

Unbundled Exchange Port

# Provisions (How service is provided)

BST could develop a new offering that would provide access to BST's switching capabilities independent from the local loop.

# Relationships (Responsibilities of the parties)

# Terms and Conditions

The CLEC may not combine BST's Unbundled Exchange Port with BST's Unbundled Exchange Line unless the Unbundled Exchange Line is provisioned out of the Special Access or Private Line Tariff.

# Price/Compensation Rates

The port charge could be a flat-rated monthly recurring rate.

Network usage could be rated similarly to the existing Shared Tenant Service (\$TS). (\$.02/Call and \$.02/minute)

# Noted Exceptions

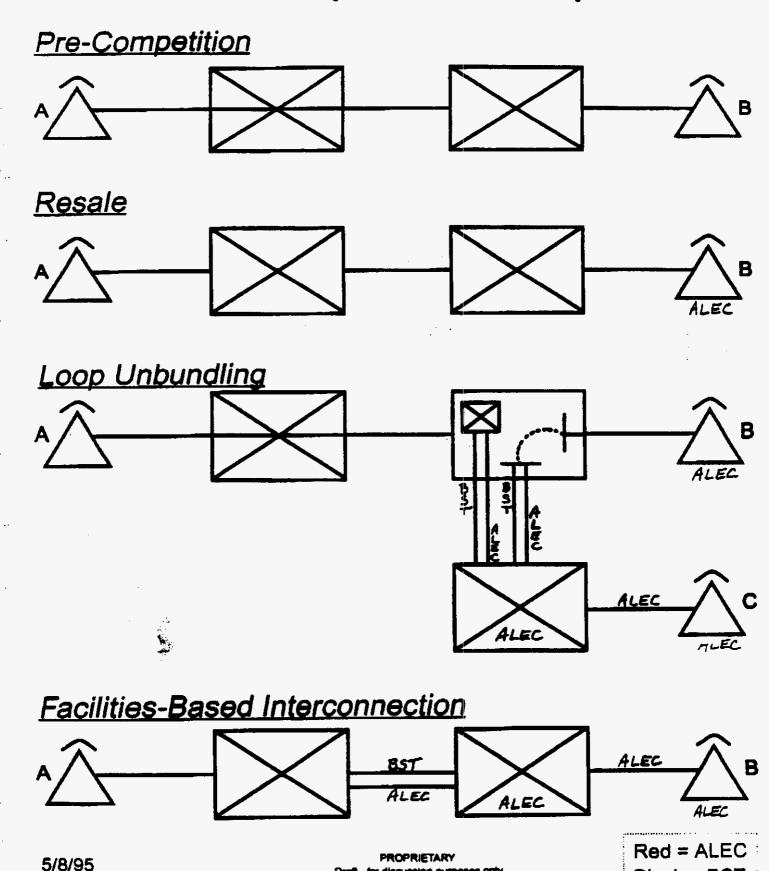
State Specific Information (Where available)

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# **Local Competition Examples**



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FUNDING REQUIREMENTS FOR CHANGE PLAN

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# Project Harmonize Technical Issues Team

Issue Category:

Interconnection and Unbundling (Local Exchange Services)

Category Number:

Issue Statement:

What are the interconnection points and issues associated with the

various local loop options between SST and alternate providers?

Issue Number:

5

Champien:

John Krupsky

Phone:

205-977-7148

Contact(s):

Ed Jones, John Jackson, Tom Appleby, Stave Sauer, Glenn

Stewart

Phone:

205-977-5059, 5043, 7188, 7209, 404-829-2670

Drawings of local loop configurations, both existing and future, will Description: be analyzed for requested and potential interconnection points. Each serving arrangement and interconnection alternative will be documented for advantages, disadvantages, aquipment constraints, compatibility issues, operations impacts, economics, and consistency with network evolution plans.

**Solution Alternatives:** 

Numerous

Solution Implications:

Recommendations:

Select a first choice alternative for each interconnection

arrangement based on technical constraints, aconomics, and corporate strategy.

Week	Status
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June 12	Attached drawing and notes.
June 19	
June 26	
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August	Revised notes on budget Impacts.
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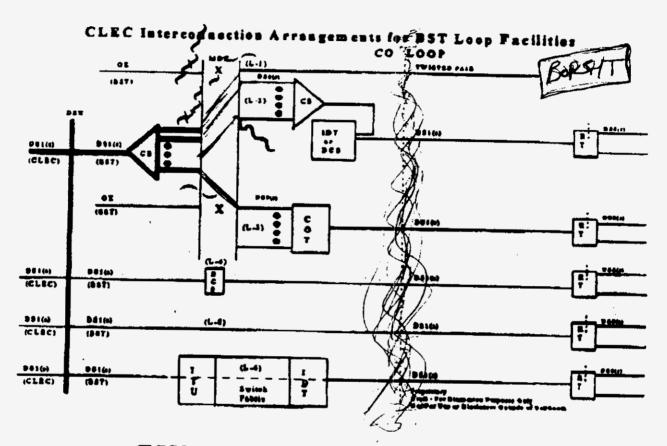
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CLEC interconnection Arrangements for BST Loop Facilities

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L-6
In this interconnection arrangement, individual DSOs served over integrated DLC can be unbundled by a semi-permanent connection through the switch (nail-up) or by interconnection only for duration of the call (out-through).

# Estimated Incremental Budget Impacts per Access Line:

\$ Capital \$ Expense

Weighted Avg 112.81 35.50

Notes:

44

 Application of these costs to a forecast of access lines captured by CLECs must consider the numbers of CLECs and numbers of locations and where interconnection is requested.

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#### INTEROFFICE MEMORANDUM

Date: 04-Aug-1995 10:46am CDT

From: B. I. Welch

WELCH ED

Dept: INTERCONNECT CUS SUPPOR

Tel No: 904-350-8805

TO: 11 'TO' addressees

CC: 2 'CC' addressees

Subject: PROJ. HARMONIZE - UNBUNDLED LOOP/PORT

On behalf of the Project Harmonize Operations team, I have been asked to interface with the appropriate product teams to address the local competition issues of unbundled loops and unbundled ports. To kick off this effort, I have scheduled a meeting for August 9, 1995, SBC, Room 400, 675 West Peachtree Sreet, 10:00 - 5:00 EST, in Atlanta.

The Harmonize Operations team has requested, at a minimum, the following information be available by October 1, 1995.

- -service descriptions (marketing/technical)
- --methods and procedures
- -illustrative tariff
- -USOCs
- :-rate elements/billing/guiding
- -service order exhibits
- "journalization/phrase codes/account codes
- -measurement (recording/capturing) procedures
- -billing specifications (CBOS)

As you may conclude, we must perform the entire product development process in less than two months. Each of you has been identified as a key resource for this effort, and as such your participation (or representation) is vital for the success of this project. I also encourage you to invite additional personnel which you perceive to be needed for the project.

This meeting will not be canceled in the event of a work stoppage. As stated in the attachment from Allan Price to the Harmonise Steering team, personnel involved in Harmonise activities should be exempted as needed from work stoppage assignments to continue those activities.

Please accept my apologies for the short notice, but this appears to be standard procedure for this project. I look forward to seeing you at the meeting. Call me on 404-529-5133 if you have any questions.

July 31, 1995

MEMORANDUM TO: Harmonize Steering Committee

FROM: Allan Price

SUBJECT: Emphasis on Priority of Harmonise Activities

During the 7/27 Steering Committee Meeting a question arose concerning the ability of the planning teams to meet the dates being imposed upon them by the regulatory process in the various states. Although the team leaders expressed confidence in being able to meet all known requirements at this time, they acknowledged that some of the product teams being pulled in now did not seem to be treating the implementation work with the appropriate sense of urgency. Additionally, it was noted that several key players on the planning teams, as well as the product teams, were not being withheld from strike duty should a work stoppage occur in August.

As a result of these concerns Charlie Coe asked me to send a note to the Steering Committee and others asking that the Harmonize implementation activities be treated with the highest priority. It is essential that the product teams complete all service description, tariff development and MEP changes thoroughly and expeditiously, and, this work must be completed regardless of whether a work stoppage occurs or not. Please give this your personal attention as soon as possible.

Copy to: Harmonize Core Team
Larry Carter
Dave Shaver
Jim Wooten

Rob McKibben /AL, BRHM06 8/10/95 13:32

Page 1

Contents: 5

Dated: 08/10/95 at 08:34

MESSAGE Subject: Unbundled Services 8/9/95 Meeting Minutes

Sender: E I. Welch / Bridge (WELCH_ED@TNCC)

Part 1

TO: DISTRIBUTION (Title: Distribution)

Part 2

Attached are the minutes of the 8/9/95 unbundled loop/port meeting. I welcome any changes or corrections.

Thanks again for your help and participation.

Part 3

#### MEETING MINUTES

Date: August 9, 1995

Subject: Unbundled loop, unbundled port

Attendees:
Ed Welch
Ray McCallen
Vic Atherton
Jane Raulerson
Sharon Irwin
Susan Campbell
Bob Flood

Marilyn Landis

Gennie Walker

Daonne Caldwell
Jerry Latham
Kelly Stephens
John Davis
Melissa Dutton
Dave Szczuka
John Krupsky
Leanne Ward
Rob McKibben

Rod Reardon

Ed Welch facilitated a meeting on August 9, 1995, to discuss the local competition issues of unbundled loop and unbundled port.

#### UNBUNDLED LOOP

The "Unbundled Products and Services" documentation prepared by the Project Harmonize Interconnect team was reviewed and discussed. Open discussion followed about the special access and private line scenarios.

#### SPECIAL ACCESS

Network representatives expressed concerns that special access was not a technically viable option. These perceived technical barriers were discussed, the concerns were alleviated, and Network agreed that unbundled loops could be provided via special access as currently tariffed. No tariff changes would be required. Verification of available (and for suggestion to CLECs) NC/NCI/SECNCI codes was suggested.

Notwithstanding the absence of technical problems in providing unbundled loops via special access, cross connecting special access unbundled loops to non-access unbundled ports was perceived to be a serious problem. Numerous existing service offerings (i.e., DS1 to CENTREX, DS1 to FlexServ, etc.) with similar access to non-access cross connects are plagued or hindered by multiple COU involvement or communication prior to order issuance, service rep confusion, manual coordination of separate related orders by Network, frequent provisioning delays, customer irritation, two control offices for installation/maintenance, high work content, and high provisioning costs.

The issue of loop conservation was also discussed. The methods for unbundled loop should provide for reuse of existing (BST) loop facility

when the enduser changes from BST to CLEC, CLEC to CLEC, or CLEC to BST. This would eliminate the unnecessary expense of installing (potentially) additional facilities, especially from a residence perspective.

Sharon Irwin was identified as the Product Manager, and was asked to address the above issues via her product team.

#### PRIVATE LINE

The following issues were identified regarding the private line access alternative for providing unbundled loops.

- -A new USOC would be required to facilitate provisioning of a DSO interface at the end user location and a DS1 interface at the CLEC location. There is no provision for this combination in the current GSST tariff.
- -A DLR (design layout record) is not available for private line. This is a disadvantage compared to special access.
- -There is no automated process for customers to request service from BST. This is a disadvantage when compared to the EXACT process used with special access.
- -Network will be required to field dispatch on all DSO's. The same will be required for special access and is inherent in all "special service" processes.
- -Current "POTS" end user facilities (some are not special services compatible) may not be reusable. This applies to special access as well.
- -If unbundled loops are provided via private line, a new reseller section should be created in the tariff.

Sharon Irwin was identified as the Product Manager, and was asked to address the above issues via her product team.

#### OTHER ALTERNATIVE

There is a potential that a totally unique tariff offering would be required due to pricing issues inherent in other alternatives.

Jerry Latham was representing the Product Manager (Richard Robertson), and was asked to address this alternative with same.

#### UNBUNDLED PORT

The following issues were identified regarding the unbundled loop issue:

- -DSO cross connection of a port to a collocated CLEC contains a myriad of provisioning problems, and should be avoided where possible.
- -Procedures must be developed for cross connecting to an unbundled loop. (See concerns previously listed in these minutes.)
- -Need to pursue/develop the capability to provide DS1 cross connect between port and CLEC.
- -Determine the connecting arrangements with SLC systems.
- -Ensure capability of usage measurement.

Jerry Latham was representing the Product Manager (Richard Robertson), and was asked to address this alternative with same.

#### **GENERAL**

Ed Welch summarized the issues and reiterated the charge from the Project Harmonize Operations team to conclude product development and issued resolution activities by October 1, 1995. The product teams are requested to deliver the items listed in the attached meeting invitation.

Bob Flood expressed concern about the October 1, 1995, date from a final tariff perspective. He suggested that this forum establish date milestones for the product team. After some discussion, it was decided to delegate this task to the individual product teams.

At the request of Sharon Irwin, Ed Welch committed to contact Jerry Latham, to obtain the direction regarding special access, and to reply to Sharon before substantive efforts begin by her team.

#### Part 4

Forwarded MESSAGE Dated: 08/04/95 at 10:46 Subject: PROJ. HARMONIZE - UNBUNDLED LOOP/PORT Contents: 2 Sender: E I. Welch / Bridge (WELCH ED@TNCC)

#### Part 4.1

TO: DISTRIBUTION (Title: Distribution)

#### Part 4.2

On behalf of the Project Harmonize Operations team, I have been asked to interface with the appropriate product teams to address the local competition issues of unbundled loops and unbundled ports. To kick off this effort, I have scheduled a meeting for August 9, 1995, SBC, Room 400, 675 West Peachtree Sreet, 10:00 - 5:00 EST, in Atlanta.

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As you may conclude, we must perform the entire product development process in less than two months. Each of you has been identified as a key resource for this effort, and as such your participation (or representation) is vital for the success of this project. I also encourage you to invite additional personnel which you perceive to be needed for the project.

This meeting will not be canceled in the event of a work stoppage. As stated in the attachment from Allan Price to the Harmonize Steering team, personnel involved in Harmonize activities should be exempted as needed from work stoppage assignments to continue those activities.

Please accept my apologies for the short notice, but this appears to be standard procedure for this project. I look forward to seeing you at the meeting. Call me on \$04-529-5133 if you have any questions.

#### Part 5

July 31, 1995

MEMORANDUM TO: Harmonize Steering Committee

FROM:

Allan Price

SUBJECT:

Emphasis on Priority of Harmonize Activities

During the 7/27 Steering Committee Meeting a question arose concerning the ability of the planning teams to meet the dates being imposed upon them by the regulatory process in the various states. Although the team leaders expressed confidence in being able to meet all known requirements at this time, they acknowledged that some of the product teams being pulled in now did not seem to be treating the implementation work with the appropriate sense of urgency. Additionally, it was noted that several key players on the planning teams, as well as the product teams, were not being withheld from strike duty should a work stoppage occur in August.

As a result of these concerns Charlie Coe asked me to send a note to the Steering Committee and others asking that the Harmonize implementation activities be treated with the highest priority. It is essential that the product teams complete all service description, tariff development and M&P changes thoroughly and expeditiously, and, this work must be completed regardless of whether a work stoppage occurs or not. Please give this your personal attention as soon as possible.

Copy to: Harmonize Core Team

Larry Carter Dave Shaver Jim Wooten

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	or Harmonice 1830 - B. Schrye Negotication Tour
<u> </u>	del- Harmonie 9:00 - Julius ed Coops/Ports

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MESSAGE Dated: 08/13/95 at 23:58
Subject: RE: Re: Unbundled Loop Features Utilizing Special Access Contents: 2

Sender: Sharon Irwin

O=bci; P=bci;

Part 1

TO: DISTRIBUTION (Title: Distribution)

Part 2

Jerry,

We still need to talk. While the meeting served to clear up some issues, I am still confused by several items:

1. We need to discuss this issue about the provisioning of an unbundled loop and what tariff this should come from. I am still unclear about where this "access loop" filing will reside. (i.e. If the unbundled access loop is to be filed in the state access tariff or the GSST tariff or if it is undecided at this point. )

Based upon earlier memos from you, it seemed a determination had already been made that the filing would exist in the State Access Tariff. As Susan Campbell and I explained in the meeting, there needs to be some serious thought that goes into this decision. We could potentially lose some important negotiation tools (CSAs) by filing this in the state access tariff. Additionally, as we explained, by filing this in the access tariff provisioning will be a disaster. I am not convinced that these issues have been adequately addressed.

- 2. I am concerned that the Product Manager for the unbundled NAR was not involved in the afternoon conversation. This will have a large impact on their revenues too. Additionally, they need to have input into this provisioning issue (i.e. CABS vs. CRIS).
- 3. From earlier memos from you, it seems that a team already exists that will be filing these tariffs to meet the October 1 deadline. I want to verify that this is indeed the case and my Product Team's involvement in this is simply as a technical resource.

### **Unbundled Loops**

### **Power Ringing**

Background: A power ringing signal is the customer's indication that someone is calling and it's time to answer the phone. The audible ringing signal is the tone the calling party hears through the speaker to indicate that the telephone on the other line is ringing.

Power ringing requires a strong electrical current (-48V) to activate the bells in the telephone set. This current is typically provided by the batteries in the central office and is applied to the line by a metallic grid on the switching machine.

A DS-1 digital signal does not carry power ringing current.

A SLC-96 (or equivalent DLC) DS-1 carries instructions to the SLC-96 channel bank that power ringing is required. The SLC-96 channel bank then interprets the control signal and applies the necessary current to the subscriber's line from batteries located in the channel bank.

#### Issue:

If an OLEC buys an unbundled loop from BST, how will the OLEC apply power ringing to the unbundled line, assuming:

- 1) the OLEC interfaces BST at the DS-1 rate
- 2) the OLEC is collocated

MESSAGE Dated: 08/04/95 at 08:31 Subject: Re: Unbundled Loop Features Utilizing Special Access

Sender: Brian Blanchard / Bridge (BLANCHARD_FB@ALTE)

Part 1

FROM: Brian Blanchard / Bridge (BLANCHARD FB@ALTE)

TO: Sharon Irwin

O=bci; P=bci;

CC: Craig L. Cook / AL, BRHM06 Rob McKibben / AL, BRHM06

Jane Raulerson / Bridge (RAULERSON_J@ALTE)

Bob Scheye / Bridge (SCHEYE R@TNAA)

Jerry G. Latham / AL, BRHM06

Ed Houppert / Bridge (HOUPPERT_EJ@ALTE) Dave Worthen / Bridge (WORTHEN_RD@ALTE)

Part 2

Hicap terminating in an ESSX is the most poorly coordinated service we offer today. Every order is a problem. I have been working with Mike Stauffer's ESSX team to remedy this situation for nearly four years. PBX/DTS service was to help remedy this situation by allow Megalink to terminate directly on the trunk side of the switch. ESSX was to be redesigned to provision the Hicap between the POP and switch as an end-to-end carrier system. I am still waiting on an illustrative tariff from Dave Sczuka. Two different customers that hook together to form one end-to-end service should be treated as one record for maintenance and provisioning if we have sold the service to both customers.

> Thanks, Brian

MESSAGE Dated: 08/03/95 at 23:15
Subject: Re: Unbundled Loop Features Utilizing Special Access Contents: 2

Sender: Susan Campbell O=bci: P=bci:

Part 1

FROM: Susan Campbell

O=bci; P=bci;

TO: Sharon Irwin

O=bci; P=bci;

CC: Jerry G. Latham / AL, BRHM06
Brian Blanchard / Bridge (BLANCHARD_FB@ALTE)
Craig L. Cook / AL, BRHM06
Rob McKibben / AL, BRHM06
Jane Raulerson / Bridge (RAULERSON_J@ALTE)
Bob Scheye / Bridge (SCHEYE_R@TNAA)
Amanda J. Grant / AL, BRHM04
Ed L. Honeycutt / Bridge (HONEYCUTT EL@TNCC)

Part 2

Sharon,

As we discussed earlier, I don't see why we can't use existing FX/OPX (FXS) cards to provision this. I agree with you that there are larger issues than just ordering the loop:

if the customer ordering the loop is an ESP, who is also a CAP, how are they going to order the network switching element. I think ordering out of our traditional GSST/PL tariffs is much more atttractive than some of the pending issues (GSST NARs are flat rate, if it is "access" when you order resale service, doesn't all access have to be billed the same way?)

From a collocation standpoint, we hated the "resale is access" point of view taken by regulatory last year in FL since we have CSA authority on the local level and not in the access arena and we felt it had potential implications (but then again they didn't ask us). I'd ask that team to discuss this stuff with Amanda Grant, Ed Honeycutt and other knowledgeable people before the Project people make any recommendations.

Susan

REPLY C Dated: 08/04/95 at 08:06
Subject: Re: Unbundled Loop Features Utilizing Special Access Contents: 2
Sender: Jerry G. Latham / AL, BRHM06

PHONE-1=(205) 977-2213;

Part 1

TO: SHARON IRWIN

O=BCI; P=BCI;

CC: BRIAN BLANCHARD / BRIDGE (BLANCHARD_FB@ALTE)
Craig L. Cook / AL, BRHM06
Jerry G. Latham / AL, BRHM06
Rob McKibben / AL, BRHM06
JANE RAULERSON / BRIDGE (RAULERSON_J@ALTE)
BOB SCHEYE / BRIDGE (SCHEYE R@TNAA)

Part 2

Sharon,

I think there is some confusion about this. The Project Harmonize core team has approved the policy of utilizing existing special access services (voice grade private lines, etc.,) as our unbundled loops. We want the OLECs to be able to order this service directly from the access tariff utilizing existing prices, M&Ps, order, provisioning, billing, etc., as much as possible.

It was recently suggested that these existing services might not provide the needed capabilities to provide full local exchange services such as Caller ID, etc. Therefore, we need the product teams help in determining if this is true and if so, we need your help in making the necessary modifications to the service, the tariff, the price, etc., in order to bring this to the market for OLEC consumption.

We will need these modifications completed in time for a filing to be made in mid-October. We should probably meet on this as soon as possible. I will try and make myself available at your earliest convenience.

Thanks for your help on this matter and give my thanks to your team.

Jerry

MESSAGE 22

Subject: Unbundled Loop Concentration Feature

Part 1

FROM: Jerry G. Latham / AL, BRHM06

TO: JANYTH AUSTIN

O=BCI; P=BCI;

CC: BOB FLOOD / BRIDGE (FLOOD_B@TNDD)

Rob McKibben / AL, BRHM06

JANE RAULERSON / BRIDGE (RAULERSON J@ALTE)

BOB SCHEYE / BRIDGE (SCHEYE R@TNAA) E I. WELCH / BRIDGE (WELCH ED@TNCC)

Part 2

Jan,

Ealier this week, you and I had discussed the need to tariff a service that would allow Other Local Exchange Companies (OLECs) to concentrate unbundled loops from a central office back to their switch. It appears that this capability is similar to channelized MegaLink. Our plan is to allow the OLECs to buy existing special access service such as voice grade private lines, DSO, etc. as an "unbundled loop". Therefore, the concentration service we are talking about would need to allow the OLEC to "multiplex" multiple special access lines from a central office up to a DS1 level and then "transport" the DS1 back to their entrance facilities (collocation, etc.).

The OLEC will need to be able to provide local exchange service over these facilities, so we need to ensure this feature would allow them to provide dial-tone, ringing, vertical features (call-waiting, etc.) in an equivelent manner as BST does.

The Interconnection and Operations sub-teams of Project Harmonize need your team's help in creating a product offering that the OLECs can buy from BST on an "unbundled" basis. Our hope is that we can use the existing channelized MegaLink service as much as possible. If we can use it exactly as it is today, that will be great. If not, we need to modify the product and the tariff as needed.

If it is determined that channelized MegaLink is not a good model to use for this service, please let me know as soon as possible.

We plan to file our tariff package with the states in mid-October.

Thanks for your help in this matter.

Jerry Latham

He.

Dated: 08/04/95 at 08:30

Contents: 2

23

ASCII Subject: Message text

Creator: Sharon Irwin
O=bci: P=bci:

Dated: 08/02/95 at 17:58 Size: 2685 bytes

Jerry,

I read your memo and, as I understand the issue, we need to find a way to order GSST services out of the state access tariffs. There are many billing and provisioning issues surrounding the coordination of these services out of the existing tariff structure.

As a preliminary thought on this issue, I would propose consideration of filing a new service offering (Basically filing appropriate GSST services in the state access tariff) for seamless provisioning and billing. The unbundled aspects of GSST (NARS / PORTS) filed in the "E" tariff and existing Voice Grade offerings with perhaps NC NCI enhancements accomplish this in the most effective manner, even if some modifications to the existing access provisioning systems are required. However, we need to carefully consider the impact a filing of this type would have on existing switched access service (file in a different section??). I realize that this thought is not a trivial issue, but I think that our existing situation with ordering Hicaps into ESSX is enough reason to consider an alternative to current ordering and provisioning processes.

As an interim solution, we may want to consider ordering and provisioning like the Hicap / ESSX scenario in order to accommodate customer's requests. I talked with Ed Welch about this issue today and he suggested that we meet to discuss this in further detail.

To: Sharon Irwin

cc: Brian Blanchard @ AX400,

\G=Craig\S=Cook\O=BST\U=205977\U=5060\P=BST\A=BELLSOUTH\C=US@AX400, \G=Rob\S=Mckibben\O=BST\U=205977\U=5042\P=BST\A=BELLSOUTH\C=US@AX400, Jane

Raulerson @ AX400, Bob Scheye @ AX400

From: \G=Jerry\S=Latham\O=BST\U=205977\U=2213\P=BST\A=BELLSOUTH\C=US@AX400

Date: 08/02/95 02:39:59 PM

Subject: Unbundled Loop Features Utilizing Special Access

Sharon,

A couple of issues were raised at our last meeting relative to using special access as unbundled loops. I'm hoping you can help me and the interconnection team with these concerns.

Apparently, a special access loop (DSO, voice grade private line, etc.) does not lend itself to providing full local service functionality such as call forwarding, caller ID, etc.. I understand from Jane Raulerson, that we need different hardware (plugs, etc.) in our central office to make these loops more like a 1FR/1FB. If so, we might need a cost study and some tariff changes to make this happen.

Could you please give me your thoughts on this issue and what your suggestions are relative to making this service available for OLEC consumption. We are planning to file tariffs for this and other unbundled services by 10-15-95.

Thanks for your help.

Jerry Latham

MESSAGE 24

MESSAGE Dated: 07/31/95 at 15:51

Subject: Unbundled Loop Features Utilizing Special Access Contents: 2

Part 1

FROM: Jerry G. Latham / AL, BRHM06

TO: SHARON IRWIN

O=BCI; P=BCI;

CC: BRIAN BLANCHARD / BRIDGE (BLANCHARD_FB@ALTE)
Craig L. Cook / AL, BRHM06
Rob McKibben / AL, BRHM06
JANE RAULERSON / BRIDGE (RAULERSON J@ALTE)
BOB SCHEYE / BRIDGE (SCHEYE R@TNAA)

Part 2

Sharon,

A couple of issues were raised at our last meeting relative to using special access as unbundled loops. I'm hoping you can help me and the interconnection team with these concerns.

Apparently, a special access loop (DSO, voice grade private line, etc.) does not lend itself to providing full local service functionality such as call forwarding, caller ID, etc.. I understand from Jane Raulerson, that we need different hardware (plugs, etc.) in our central office to make these loops more like a 1FR/1FB. If so, we might need a cost study and some tariff changes to make this happen.

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Thanks for your help.

÷

Jerry Latham

25 MESSAGE Subject: unbundled loop and power ringing Creator: Rob McKibben / AL, BRHM06

PHONE-1=205-977-5042;

Part 1

TO: ED JONES / BRIDGE (JONES CEGALTE)

Part 2

Ed.

Please see the attached. Jerry Latham is working to get tariffs written to make an unbundled loop work. I told him about something that seems important to me, power ringing. Jerry asked that I write a couple of sentences on it so that when he goes to the product team and tariff writers he can explain to them what we need to include in the tariff.

Did I say this right? Is this an issue?

Rob

Part 3

Unbundled Loops

Power Ringing

Background: A power ringing signal is the customer's indication that someone is calling and it's time to answer the phone. The audible ringing signal is the t one the calling party hears through the speaker to indicate that the telephone o n the other line is ringing.

Power ringing requires a strong electrical current (-48V) to activate the bells in the telephone set. This current is typically provided by the batteries in th e central office and is applied to the line by a metallic grid on the switching machine.

A DS-1 digital signal does not carry power ringing current.

A SLC-96 (or equivalent DLC) DS-1 carries instructions to the SLC-96 channel ban k that power ringing is required. The SLC-96 channel bank then interprets the c ontrol signal and applies the necessary current to the subscriber's line from ba tteries located in the channel bank.

#### Issue:

If an OLEC buys an unbundled loop from BST, how will the OLEC apply power ringin g to the unbundled line, assuming:

- 1) the OLEC interfaces BST at the DS-1 rate
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Dated: 07/31/95 at 16:24

Contents: 3

26

### Unbundled Loops

### **Power Ringing**

Background: A power ringing signal is the customer's indication that someone is calling and it's time to answer the phone. The audible ringing signal is the tone the calling party hears through the speaker to indicate that the telephone on the other line is ringing.

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- 2) the OLEC is collocated



July 28, 1995

To:

Derl Nelson

**Sharon Davis** 

cc:

Jerry Latham

Craig Cook

From:

Rob McKibben

Subject: Unbundled Loops for Project Harmonize

Attached is a memo that describes the architecture required to unbundle a BellSouth loop to give to an Other Local Exchange Carrier (OLEC).

As you may be aware, the corporate position on unbundling local loops is that these loops are available today from the special access tariff.

In a recent RUIN-IT (Resale, Unbundling, Interconnect, Negotiations - Implementation Team) meeting, it was stated that a special access line would not work for providing dial tone. The solution that came out of the RUIN-IT team meeting is for me to give you a copy of these pictures and tell you to fix it. I really don't think that that is the answer, but you now have the package in hand and WE can start figuring out what really has to be done.

Please call me and let's discuss when you get this (205-977-5042).

Rob



Author: bci!/s-Irwin/g-Sharon at BHBR01

Date: 9/5/95 1:39 PM

Priority: Normal

TO: J R (Rob) McKibben at ACONPOO1 Subject: Concentrated Local Loop

----- Message Contents -------

Sharon Irwin <br/>
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sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharon | Sharo Bob Scheye

<TNAA!SCHEYE R>

To:

Cc:

Ronald Robinson

<bci!/s~Robinson/g~Ronald>,

Pam Tipton

<br/>
<bci!/s~Tipton/g~Pam>,

Derl Nelson

<bci!/s~Nelson/g~Derl>

Bob,

After thinking about our telephone conversation of Friday regarding my Product Team's involvement with the concentrated local loop, I wanted to bring up several points:

The Analog DS-0 Product Team was originally commissioned with utilizing their 2 wire voice grade channel to accommodate the PSC's request for unbundled local The unbundled local loop offering that the Analog DS-0 Product Team is filing consists of a 2 wire Private Line local loop. Concentration of any type cannot be done on a Private Line facility . If we need to offer concentration to OLECs, tariff and provisioning issues that surround concentrated loops will need to be addressed probably by the 1FB / 1FR Product Team since they have this technical expertise. The Analog DS-0 Product Team does not have the background to accommodate this request because it is not a function of Analog Private Line services.

Since this service is really a hybrid T1 offering, this may need to fall into the new cost development group or under a separate product team that might include a cross section of T-1 and 1FB / 1FR expertise depending upon how we want to package the offering.

We have had discussions with MFS and they have indicated to us their understanding of timing issues surrounding the development process. From my understanding, their biggest issue revolved around the fact that they did not want to receive a DS-0 level service for cross connect purposes. Our team's intent has always been to give the OLEC a T-1 level cross connect. Once this was explained to MFS, they seemed to be satisfied.

If there are any other issues my Product Team needs to address from a dedicated DS-0 level, please let me know.

Sharon Irwin

type of on voice grade

2230 - Ring Down

2231 - OPX

Designed to perform

to higher steundard

Screnteed to pass

Signalling 0-45db

FIRCOIT 0000000

Exhibit AXB-1

# ANIRUDDHA (ANDY) BANERJEE

### **BUSINESS ADDRESS**

National Economic Research Associates, Inc. One Main Street Cambridge, Massachusetts 02142 (617) 621-2604

Dr. Aniruddha (Andy) Banerjee is a Senior Consultant at NERA. He is responsible for providing analysis of and testimony on regulatory and economic issues of concern to telecommunications companies, preparing and responding to interrogatories in regulatory proceedings, and conducting econometric/statistical analysis to support marketing and market research activities of telecommunications companies. His market research activities are carried out, as needed, in collaboration with leading providers of telecommunications data or directly with telecommunications companies.

Before coming to NERA, Dr. Banerjee was a Research Economist at BellSouth Telecommunications where he was responsible for providing economic policy guidelines to key decision-makers and the Officer Body, preparing testimony and cross-examination questions, responding to interrogatories, and building econometric models to answer business questions. He provided quantification support on BellSouth's design of a price cap regulatory framework, and contributed to BellSouth's policies on local and toll imputation, universal service, interconnection pricing, rate rebalancing, and per use pricing of vertical services. He also represented BellSouth's participation in the National Telecommunications Demand Study, an ongoing study of demand trends in the telecommunications industry.

Prior to BellSouth, Dr. Banerjee was a Member of the Technical Staff at Bell Communications Research and a Staff Supervisor at AT&T. Dr. Banerjee has several years of experience teaching graduate and undergraduate courses in economic theory, statistics, econometrics, industrial organization, and public finance. He has conducted research on the dynamics of futures markets and various aspects of time series econometrics. He has presented a number of papers on telecommunications economics issues at national business and academic conferences.

#### **EDUCATION**

THE PENNSYLVANIA STATE UNIVERSITY Ph. D., Agricultural Economics, 1985

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UNIVERSITY OF DELHI, INDIA M.A., Economics, 1977

UNIVERSITY OF DELHI, INDIA B.A., Economics (Honors), 1975

#### **EMPLOYMENT**

## NATIONAL ECONOMIC RESEARCH ASSOCIATES, INC.

1995-

Senior Consultant, Communications Practice. Responsible for applying economic theory, regulatory economics, and econometric analysis to a variety of tasks: supporting telecommunications firms in litigation and regulatory matters, market research, and strategic planning.

### BELLSOUTH TELECOMMUNICATIONS

1992-1995

Research Economist, Statistics and Econometrics Group.

Developed, led, and disseminated economic and econometric research on issues of concern to BellSouth Telecommunications in particular and the telecommunications industry in general.

Contributed to each of the following areas: regulatory economics, demand analysis (growth and elasticities), market potential, diffusion, pricing, cost, new product planning, forecasting, market research, competitive analysis, and the development of strategy/policy positions for BellSouth. Supervised and collaborated with other BellSouth economists and strategic planners and outside consultants.

### BELL COMMUNICATIONS RESEARCH

1989-1992

Member of Technical Staff, Regulatory Economics and Pricing Theory, Demand Response Analysis Group. Developed various statistical and econometric methods and models that are applicable to the study of demand for various types of telephone service. The focus was on analysis, forecasting, and rate design support to client companies including BellSouth, U S West, NYNEX, and Bell Atlantic. Developed software for demand and market potential analysis using advanced mathematical/statistical languages. Transformed original techniques research into business tools for analysts within client companies.

## AT&T COMMUNICATIONS

1988-1989

<u>Staff Supervisor</u>, Market Analysis and Forecasting, Consumer Markets and Services. Assisted and contributed to demand analysis and forecasting efforts of the group. The focus was on demand issues related to AT&T's business and residential long distance telephone services.

### THE PENNSYLVANIA STATE UNIVERSITY

1985-1988

Assistant Professor, Department of Economics. Developed and taught undergraduate and graduate courses in economics and econometrics. Conducted personal research in economics and econometrics. Supervised graduate student research leading to M.S. and Ph.D. degrees in economics. Developed the econometrics component of a new graduate program in policy analysis at Penn State. And, advised undergraduate economics students on their curriculum and course selection. Taught courses on introductory macro-economic theory, introductory and intermediate micro-economic theory, industrial organization, public sector economics, statistics, and introductory econometrics. Developed and taught advanced graduate econometrics and time series courses (frequency-domain econometrics and spectral analysis, dynamic simultaneous equations systems and state space models, causality, model testing and validation, nonlinear time series, and asymptotic theory.

1982-1985

<u>Instructor</u>, Department of Economics. Taught a number of undergraduate economics courses including macro-economic theory, micro-economic theory, public sector economics, and statistical foundations of econometrics.

1979-1982

Research Assistant, Department of Agricultural Economics & Rural Sociology. Assisted in research activities of Professor Robert D. Weaver of the Department of Agricultural Economics. Research areas included: stabilization of prices of internationally traded agricultural commodities; choice under risk-aversion by a firm faced with multiple sources of uncertainty; impacts of public policy on risk-averse firms; market efficiency, role of information, distribution of asset returns, and market equilibrium; and productivity and cost relations in the wheat, corn, and soybean producing areas of the U.S. using crop survey data from the U.S. Department of Agriculture. Most of the work consisted of literature research, writing computer programming, and econometric data analysis.

### UNIVERSITY OF DELHI, INDIA

1977-1979

<u>Lecturer</u>, Department of Economics, Shri Ram College of Commerce. Taught undergraduate economics courses including micro-economic theory, public finance, and economic planning and policy.

#### **HONORS AND AWARDS**

Phi Kappa Phi, inducted 1982 Gamma Sigma Delta Honor Society of Agriculture, inducted 1983 Marquis' Who's Who in the South and Southwest, 1995-96

Department Head Award, BellSouth Telecommunications, 1993 Department Head Commendation, Bell Communications Research, 1992 Vice President's Award, Bell Communications Research, 1990

### **AFFILIATIONS**

American Marketing Association National Association of Business Economists

## PAPERS AND PUBLICATIONS

## **CONTRIBUTIONS TO NERA REPORTS**

"Economies of Scope in Telecommunications," for Bell Canada, 1995.

"Economic Welfare Benefits from Rate Rebalancing," for Stentor Resource Centre Inc., 1995.

"Telephone Company Provision of Broadband Services: Economies of Scope, Competition, and Public Policy," for BellSouth Interactive Media Services

#### **TESTIMONY**

Direct Testimony addressing interconnection rate structure design, on behalf of BellSouth Telecommunications, to Florida Public Service Commission, Docket 950985-TP, September 1995.

Rebuttal Testimony critiquing bill and keep compensation for interconnection, on behalf of BellSouth Telecommunications, to Florida Public Service Commission, Docket 950985-TP, September 1995.

Wrote significant sections of testimony presented to regulatory commissions on price cap and local competition (Vermont, Louisiana) and universal service issues (Louisiana, Tennessee)

### **TELECOMMUNICATIONS-RELATED PAPERS**

"The Case Against Imputation of Access Charges in IntraLATA Toll Prices: Economic Efficiency and Fairness Reconsidered," BellSouth Telecommunications, 1994.

"Pricing of Local Exchange Interconnection Service From the Perspective of Economic Theory," BellSouth Telecommunications, 1993.

"Economies of Scale and Scope, Subadditivity of Costs, and Natural Monopoly Tests for Regulated Utilities," BellSouth Telecommunications, 1993.

"Fairness and Economic Efficiency in Regulation: Imputation v. Equal Contributions in IntraLATA Toll Pricing," Report to the Task Force on Imputation of Access Charges in IntraLATA Toll Price, BellSouth Telecommunications, 1993.

"Economic Analysis of Efficient versus Imputation-Based Pricing by a Regulated Public Utility," Report to the Task Force on Imputation of Access Charges in IntraLATA Toll Price, BellSouth Telecommunications, 1993.

"E: A Maximum Likelihood Estimation Program, A User's Guide to Some Applications," Bell Communications Research, 1992.

"Error Components Panel Data Modeling of Share Equation Systems: An Application to Telecommunications Access Demand," Bell Communications Research, 1989.

"Analysis of Demand Migration and Take Rates for Special Access High Capacity Services," Bell Communications Research, 1990.

"Business Outbound Service System: An Empirical Modeling Framework," AT&T, 1989.

#### MISCELLANEOUS PAPERS

"Does Futures Trading Destabilize Cash Prices? Evidence for U.S. Live Beef Cattle," (with R.D. Weaver), <u>Journal of Futures Markets</u>, Vol 10(1), 1990, (pp. 41-60).

"Market Structure and the Dynamics of Retail Food Prices," (with R.D. Weaver and P. Chattin), Northeastern Journal of Agricultural and Resource Economics, Vol 18(2), 1989, (pp. 160-170).

"Cash Price Variation in the Live Beef Cattle Market: The Causal Role of Futures Trade," (with R.D. Weaver), <u>Journal of Futures Markets</u>, Vol 2(4), 1982, (pp. 367-389).

"Unemployment Rate Dynamics and Persistent Unemployment Under Rational Expectations: A Comment," (with V. Moorthy), Working Paper No. 8-87-1, Department of Economics, The Pennsylvania State University, 1987.

"The Standard Errors of Characteristic Roots of a Dynamic Econometric Model: A Computational Simplification," <u>Working Paper No. 5-87-3</u>, Department of Economics, The Pennsylvania State University, 1987.

"Market Structure, Market Power, and Dynamic Price Determination in the Retail Food Industry," (with R.D. Weaver), <u>Working Paper No. 5-87-2</u>, Department of Economics, The Pennsylvania State University, 1987.

"Does Futures Trading Destabilize Cash Prices? Evidence for Live Beef Cattle," (with R.D. Weaver), <u>Working Paper No. 5-87-1</u>, Department of Economics, The Pennsylvania State University, 1987.

"Existence of Portfolios with Simultaneous Trading in Unrelated Speculative Assets," Working Paper No. 8-86-2, Department of Economics, The Pennsylvania State University, 1986.

"Models of Cash-Futures Market Complexes for Commodities Characterized by Production Lags," <u>Working Paper No. 7-86-2</u>, Department of Economics, The Pennsylvania State University, 1986.

"Cash Price Stability in the Presence of Futures Markets: A Multivariate Causality Test for Live Beef Cattle," (with R.D. Weaver), <u>Staff Paper No. 45</u>, Department of Agricultural Economics and Rural Sociology, The Pennsylvania State University, 1981.

"Optimal Interpolation and Distribution of Time Series by Related Series Using a Spectral Estimator for the Residual Variance," Bell Communications Research, 1990.

"Size and Power Characteristics of Three Tests of Nonlinearity in Time Series," AT&T, 1989.

"Model Testing and Selection in Applied Econometrics," AT&T, 1989.

## RECENT CONFERENCE PRESENTATIONS

"On Modelling the Dynamics of Demand for Optional and New Services," International Communications Forecasting Conference, Toronto, Canada, June 13-16, 1995.

"The Case Against Imputation of Access Charges in IntraLATA Toll Prices: Economic Efficiency and Fairness Reconsidered," Rutgers University Advanced Workshop in Regulation and Public Utility Economics, Seventh Annual Western Conference, San Diego, CA, July 6-8, 1994.

"Future Directions in Modeling the Demand for Vertical Services," National Telecommunications Demand Study Conference, La Jolla, CA. March 24-25, 1994.

"E: A Maximum Likelihood Estimation Program," National Telecommunications Forecasting Conference, Crystal City, VA, June 1-4, 1993.

Discussant of "The National Telecommunications Demand Study," National Regulatory Research Conference on Telecommunications Demand, Denver, CO, August 3-5, 1992.

"Using Demographics to Predict New Service Take Rates: Discrete Choice Analysis vs. Categorical Data Analysis," National Telecommunications Forecasting Conference, Atlanta, GA, May 5-8, 1992.

"Price Cap Regulations for the LECs: Implications for Demand and Revenue Forecasting," National Telecommunications Forecasting Conference, Boston, MA, May 30, 1991.

"Demand Migration for Special Access High Capacity Services," Rutgers University Advanced Workshop in Regulation and Public Utility Economics, Third Annual Western Conference, San Diego, CA, July 11-13, 1990.

"Error Components Panel Data Modeling of Telecommunications Access Demand," Bellcore-Bell Canada Telecommunications Demand Analysis Conference, Hilton Head, SC, April 22-25, 1990, and Bell Atlantic Business Research Conference, Baltimore, MD, October 24-27, 1989.

"Analysis of Integrated Demand Systems," Rutgers University Advanced Workshop in Regulation and Public Utility Economics, Second Annual Western Conference, Monterey, CA, July 5-7, 1989.

Panel Discussion on "The Regulatory and Operational Impacts of Price Caps," National Telecommunications Forecasting Conference, San Francisco, CA, May, 1989.

EXHIBIT NO. _______

**DOCKET NO.:** 950984-TP

WITNESS: ANDY BANERJEE

PARTY: BELLSOUTH

**DESCRIPTION:** 

1/5/96 DEPOSITION TRANSCRIPT

PROFFERING PARTY: STAFF

I.D. # AB-1

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET 95 0984-7P EXHIBIT NO 20

COMPANY/ BS/ Banersee

DATE: 11/96

### BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE:

RESOLUTION OF PETITION (S) TO ESTABLISH NONDISCRIMINATORY RATES, TERMS, AND CONDITIONS

FOR RESALE INVOLVING LOCAL

EXCHANGE COMPANIES AND ALTERNATIVE LOCAL EXCHANGE COMPANIES PURSUANT TO SECTION 364.161, FLORIDA STATUTES

DOCKET NO. 950984-TP

FILED

12/11/95

Deposition of ANIRUDDHA (ANDY) BANERJEE, Ph.D., taken pursuant to the stipulations contained herein; reading and signing of the deposition reserved, before Cynthia C. Staples-Dorough, B-882, Certified Court Reporter, Notary Public in and for DeKalb County, Georgia, commencing at 12:01 P.M., on Friday, January 5, 1996, via telephonic means, with the court reporter being present at the offices of BellSouth Telecommunications, 675 West Peachtree Street, Suite 4300, Atlanta, Georgia.

*************

# VERBATIM COURT REPORTERS. INC.

### **APPEARANCES**

FOR METROPOLITAN FIBER SYSTEMS OF FLORIDA, INC.:

SWIDLER & BERLIN, CHARTERED
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RICHARD M. RINDLER, ESQUIRES
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FOR BELLSOUTH TELECOMMUNICATIONS, INC.:

R. DOUGLAS LACKEY, FRED McCALLUM, and NANCY B. WHITE, ATTORNEYS AT LAW BellSouth Telecommunications, Inc. 675 W. Peachtree Street Suite 4300 Atlanta, Georgia 30375

FOR MCI METRO ACCESS TRANSMISSION SERVICES, INC.:

HOPPING, GREEN, SAMS & SMITH By: RICHARD D. MELSON, ESQUIRE P. O. Box 6526 Tallahassee, Florida 32314

FOR THE COMMISSION STAFF:

DONNA L. CANZANO and SCOTT EDMONDS and TRACY HATCH, ATTORNEYS AT LAW Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399

FOR FLORIDA CABLE TELECOMMUNICATIONS ASSOCIATION:

WIGGINS & VILLACORTA

By: LAURA L. WILSON, ATTORNEY AT LAW
310 N. Monroe Street

Tallahassee, Florida 32301

# VERBATIM COURT REPORTERS, INC.

## APPEARANCES (Continued)

FOR L.D.D.S., WORLD COM.:

MESSER, CAPARELLO, MADSEN, GOLDMAN & METZ, P.A. By: NORMAN H. HORTON, JR., and FLOYD R. SELF, ESQUIRES
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Tallahassee, Florida 32302

FOR CONTINENTAL CABLEVISION, INC. (Southeast Region):

DONALD L. CROSBY, ESQUIRE 7800 Belford Parkway Suite 270 Jacksonville, Florida 32256

### FOR TIME WARNER:

PENNINGTON & HABEN, P.A. By: SUE WEISKE, ATTORNEY AT LAW P. O. Box 10095 Tallahassee, Florida 32302

### ALSO PRESENT:

Ms. Cheryl Laskowski Ms. Julia Strow Mr. Ray Lee

# VERBATIM COURT REPORTERS, INC.

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(No exhibits marked by the parties.)

## TRANSCRIPT LEGEND:

(sic)	=	Exactly as stated
	=	Break in continuity
	<b>=</b> .	Break in phone transmission
(phonetic)	==	Exact spelling unknown
text	text	text = Change in thought pattern

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1	PROCEEDINGS
2	MR. McCALLUM: Jim, are you ready?
3	MR. FALVEY: Yeah. Why don't we move
4	ahead. I guess you can swear him in.
5	THE COURT REPORTER: Do we have the
6	same notary? Is this Anne Tammaro?
7	DR. BANERJEE: Shall we proceed?
8	MR. McCALLUM: Is this Anne Tammaro?
9	MS. TAMMARO: Yes.
10	MR. McCALLUM: Okay. If you would
11	MR. FALVEY: We're on the record,
12	right?
13	MR. McCALLUM: Yes. We're back on the
14	record.
15	Anne, if you would swear the witness,
16	I guess in the same fashion you did
17	earlier.
18	(Whereupon, Aniruddha (Andy) Banerjee,
19	Ph.D., was sworn by Ms. Anne Tammaro,
20	Notary Public, Cambridge, Massachusetts.)
21	MR. FALVEY: And, Dr. Banerjee, do you
22	agree to the usual stipulations that you
23	agreed to in the interconnection docket?
24	DR. BANERJEE: Yes.
25	MR. FALVEY: And for the record, this

is the deposition of Dr. Banerjee in the unbundling docket, 950984-TP.

(Whereupon, it was agreed between counsel for the respective parties, and the deponent, that the stipulations governing the taking of the deposition of the deponent in Docket No. 950985-TP would govern the taking of the instant deposition, those being that this deposition is taken pursuant to Notice, in accordance with the applicable rules of --Florida Rules of Civil Procedure; that all objections, except as to the form of the question, are reserved until the hearing in this case; that the reading and signing of the deposition is not waived, and that a final stipulation is that any off the record conversations are only with the consent of the deponent.)

Whereupon,

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ANIRUDDHA (ANDY) BANERJEE, Ph.D.,
was called as a witness herein, and having first
been duly sworn, was examined and deposed as
follows:

CROSS EXAMINATION

# VERBATIM COURT REPORTERS, INC.

### BY MR. FALVEY:

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- Q. Dr. Banerjee, could you state your name and business address?
- A. Yes. Aniruddha, (spelling) A-n-i-r-u-d-d-h-a, Banerjee. And my business address is National Economic Research Associates, One Main Street, Cambridge, Massachusetts, 02142.
- Q. And did you submit testimony in the unbundling docket?
  - A. Yes, I did.
  - Q. And did you submit exhibits?
  - A. No -- except for my curriculum vitae.
- 13 MR. FALVEY: Okay, we're back on the 14 record at approximately 12:05 Eastern
- 15 Standard Time.

### BY MR. FALVEY: (Resuming)

- Q. Dr. Banerjee, I just have a few questions.

  It may overlap a little bit with what we did in the other docket, but I want to get into the unbundled loop docket.
  - Do you consider local loops essential facilities in the Florida switched local exchange market today?
- 24 A. At this time, yes.
- 25 Q. Do you believe... -- Or, would you

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1	recommend that in order to preclude a price
2	squeeze, that the price of unbundled loops to ALECs
3	be imputed into BellSouth's end-user prices?
4	A. No. I would recommend that the
5	contribution be imputed.
6	Q. So, in fact, do you are you aware that
7	the price of an unbundled loop is approximately
8	\$21?
9	A. Yes.
10	Q. So, the cost of an unbundled loop to an
11	ALEC would be \$21?
12	A. Yes.
13	Q. And they would have to pay \$21 to provide
.14	service to a certain universe of customers in
15	Florida?
16	A. Yes.
17	Q. Would BellSouth impute \$21 into the price
18	of basic service?
19	A. I can't speak for what BellSouth would be.
20	MR. McCALLUM: Let me object to the
21	form.
22	MR. FALVEY: I apolo (sic) Let
23	me just rephrase the question.
24	BY MR. FALVEY: (Resuming)
25	Q. Would you recommend that BellSouth impute

1	the \$21, the price of basic service in Florida, in
2	order to preclude a price squeeze?
3	A. I only recommend the imputation principle
4	as I have stated it. What they will do is up to
5	BellSouth.
6	Q. So, in fact Well, if the cost to the
7	ALEC is \$21, would you impute the full \$21?
8	A. Again, the imputation is of the
9	contribution, not of the cost, not of the price.
10	It's the contribution, which is the difference
11	between the price and the cost.
12	Q. And do you understand that the basic local
13	exchange service for residential customers is
14	approximately \$6?
15	A. Subject to check.
16	Q. Basic service, okay. So
17	MR. McCALLUM: What was that number?
18	I'm sorry. The \$6 was revenue or cost?
19	MR. FALVEY: Local exchange service
20	A residential end user, basic local
21	exchange service in Florida.
22	And let me just say that's subject to
23	check also on my end, with the tariffed
24	rates on file with the Commission.
25	MR. McCALLUM: Okay.

1	MR. FALVEY: In fact, I'd like to say
2	\$9. Okay?
3	MR. McCALLUM: Well, yeah. It sounded
4	a little low to me. That's why I asked.
5	MR. FALVEY: And I apologize.
6	BY MR. FALVEY: (Resuming)
7	Q. So, we're paying \$21 for local loops
8	BellSouth is charging \$9 to end users?
9	A. Certain end users, yes.
10	Q. Have you performed Do you know
11	whether BellSouth has performed a long-run
12	incremental cost study of local loops?
13	A. I'm not aware of that.
14	Q. Okay.
15	MR. FALVEY: I think that's all I have
16	for now.
17	MR. MELSON: Okay, this is Rick
18	Melson, for MCI Metro Access Transmission
19	Services. Dr. Banerjee, I'd like to
20	follow up on this last line of questions
21	just a minute.
22	CROSS EXAMINATION
23	BY MR. MELSON:
24	Q. You understand that the price proposed by
25	Southern Bell for an unbundled loop to be

approximately \$21; is that correct?

- A. So I have been told. It's subject to check, of course.
- Q. All right. Do you have an estimate of the long-run incremental cost for a local loop?
  - A. No, I don't.

- Q. Hypothetically, assume that cost is \$16 per month. Given that information, could you walk through how your imputation test would be applied -- would be applied to Southern Bell's local exchange service?
- A. The imputation test is -- or the imputation principle that I have outlined is that the contributions from the wholesale service, which is considered to be an essential facility, are to be imputed into the rate, the end user rate, of the retail -- the competitive retail service that uses that wholesale service.

Now, in this specific case, what one would have to do is to sit down and figure out the contribution that is being earned from the essential facility in question, local loops.

If that is a positive number, which is typically what you would expect in a marketplace where pricing is done to recover cost, then there

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| is no problem.

However, if because of some regulatory mandate... -- something other than a pure market decision -- ...the pricing is below the cost of providing the essential facilities, then the contribution is mathematically negative.

So, one would have to resolve whether the principle should be followed in its entirety, just even with a negative contribution, or whether or not the price of the service should be allowed to become compensatory... -- that is, at least cover costs -- ...and then figure out the contribution and add it on.

There are a number of public policy choices involved here, which I am not going to speculate on, which clearly would pave the way for any future practice of imputation.

- Q. Well, let me ask this. On the figures...

  -- I'd like to get back to the numbers for a
  minute. Assuming the price for -- proposed for an
  unbundled local loop is \$21.
  - A. You're saying the price, or the cost?
  - Q. Price.

Well, it's my understanding that that's what you testified you believed the price is; is

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_	that correct.
2	A. Oh, I must have misunderstood you, because
3	I thought it was the cost that Mr. Falvey mentioned
4	as being \$21.
5	Q. If I can ask a clarifying question. I
6	believe it is the price charged by the by
7	BellSouth to an ALEC, and thereby becomes a cost to
8	the ALEC.
9	A. I see. Okay. I wasn't aware of that fine
10	point.
11	So, the price of a loop is the price
12	that is charged for the loop that is sold to the
13	ALEC? Is that what you're telling me, \$21?
14	Q. Yes; make that assumption.
15	A. Okay.
16	Q. Make the assumption that the cost of a
17	local loop, long-run incremental cost is \$16.
18	A. Okay.
19	Q. Under your test, am I correct that that
20	means that \$5 of contribution should be imputed
21	into the cost of any LEC-provided service that uses
22	that local loop?
23	A. Provided that we have the units
24	straightened out, yes.
25	That is to say, not all local services are

1	produced are provided in the same measurement
2	units. Some are per call, and some are per minute,
3	or whatever. So, you have to straighten that out,
4	first.
5	Q. Assume we're talking about flat-rated
6	A. Yes.
7	Qmonthly service.
8	A. Yes, the principle would then apply.
9	Q. And the principle would be that that \$5 of
10	contribution should be imputed in addition to the
11	other costs of providing the local service; is that
12	correct?
13	A. The other costs being costs other than
14	those of the essential facility; yes.
15	Q. And what about the cost of the essential
16	facility; is that also included?
17	A. No. Only the contribution earned from
18	that essential facility.
19	Q. What if
20	A. I I I would like to clarify that
21	response. You take the direct incremental cost of
22	the service, the retail service, and add to that
23	the contribution from the wholesale essential

So, if the direct incremental cost of the

facility.

24

25

1	retail service, say, were \$19
2	A. Yes.
3	Qyou would add the \$5 of contribution to
4	the nineteen to develop the price for the retail
5	service?
6	A. That is right.
7	Q. And then you indicated in a situation
8	You indicated that there might be, in some
9	cases, public policy considerations that would lead
LO	to a different pricing decision.
L <b>1</b>	A. Yes.
12	Q. Are you making any recommendation in this
L3	docket as to how those public policy considerations
L <b>4</b>	should be resolved?
L 5	A. No, I'm not.
16	MR. MELSON: Okay. I've got no
L7	further questions.
18	BY MR. MELSON: (Resuming)
١9	Q. Thank you very much, Dr. Banerjee.
20	A. Thank you for your time.
21	RECROSS EXAMINATION
22	BY MR. FALVEY:
23	Q. One further question and then I'll be
24	done, also.
25	In the scenario that Mr. Melson drew out,

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1	in order for there to be no charge additional
2	charge imputed into LEC end user rates or BellSouth
3	end user rates, and with a cost that is \$16, the
4	Commission would have to set the price at \$16?
5	A. That's right.
6	MR. FALVEY: I have no further
7	questions.
8	Does any other party on the line have
9	any questions?
10	MS. WEISKE: No; I don't have any.
11	MS. CANZANO: The Staff has no
12	questions.
13	MR. FALVEY: Well, why don't we go off
14	the record?
15	(Whereupon, the foregoing matter was
16	concluded at 12:16 p.m.)
17	-000-
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### CERTIFICATE

STATE OF GEORGIA ) COUNTY OF DEKALB )

I, Cynthia C. Staples-Dorough, Certified Court Reporter, and Notary Public in and for DeKalb County, Georgia, do hereby certify that the foregoing deposition was taken down by me, as stated in the caption; that the foregoing questions and answers were reduced to print by me; that the foregoing pages 4 through 16 represent a true, correct, and complete transcript of the evidence given by the witness, ANIRUDDHA (ANDY) BANERJEE, who was first duly sworn by a notary public present in Cambridge, Massachusetts, present with the witness; that I am not a relative, employee, attorney or counsel of any of the parties; that I am not a relative or employee of attorney or counsel for any of said parties; nor am I financially interested in the outcome of the action.

This, the 6th day of January, 1996

CCK-B-882; Notaty Public

My commission expires: June 1, 1996.

## VERBATIM COURT REPORTERS, INC.

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### ERRATA SHEET

I hereby certify that I have read or have had read to me the foregoing and within Pages 4 through 16 and no changes are required:

ANIRUDDHA (ANDY) BANERJEE				
Sworn to and subscribed before me, this				
day of, 1996.				
Notary Public				
My commission expires:				
******				
I hereby certify that I have read or have had read to me the foregoing Pages 4 through 16 and I wish to make the following changes:				
Page:Line::				
Page:Line::				
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Page:Line::				
Page:::				
ANIRUDDHA (ANDY) BANERJEE  Sworn to and subscribed before me, this, 1996.				
Notary Public				
My commission expires:				
(ccs)				

# VERBATIM COURT REPORTERS, INC.

P. O. Box 941760 Atlanta, Georgia 31141 (404) 986-9812

# BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE:

RESOLUTION OF PETITION (S)
TO ESTABLISH NONDISCRIMINATORY
RATES, TERMS, AND CONDITIONS
FOR RESALE INVOLVING LOCAL
EXCHANGE COMPANIES AND
ALTERNATIVE LOCAL EXCHANGE
COMPANIES PURSUANT TO SECTION

364.161, FLORIDA STATUTES

DOCKET NO. 950984-TP

FILED 12/11/95

#### AMENDED CERTIFICATE

I, Cynthia C. Staples-Dorough, Certified

Court Reporter, state that the deposition of

ANIRUDDHA (ANDY) BANERJEE, Ph.D., was transcribed and

a letter mailed to Dr. Banerjee on or about January

8, 1996, advising him to read and sign the deposition

within the time parameters allowed under Florida Law,

and return the executed Errata Sheet to my office.

As a hearing has been scheduled in this matter for Tuesday, January 9, 1996, the original is hereby sealed for use at said hearing, with the provision that when/if the Errata Sheet is returned, it will be forwarded to the appropriate parties; this, the 6th day of January, 1996.

CYNTHIA C. STAPLES-DOROUGH CCR-B-882; Notary Public.

My commission expires: June 1, 1996.

## LAWYER'S NOTES

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# BELLSOUTH EUROPE

Comments of BellSouth Europe to the European Commission's Green Paper on the Liberalisation of Telecommunications Infrastructure and Cable Television Networks

March 15, 1995

FLORIDA PUBLIC SERVICE <b>COMMISS</b>	
DOCKET 15098477 EXHIBIT NO	21
COMPANY/	
WITNESS: ULF6	

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Hopping Green, Sams & Smith, P.A.

### Introduction

BellSouth Europe is pleased to provide written comments to the Commission regarding the "Green Paper on the Liberalisation of Telecommunications Infrastructure and Cable Television Networks" (the "Green Paper").

BellSouth, one of the world's leading telecommunications companies, has a long-standing commitment to Europe and maintains a headquarters office in Brussels. By following its strategy to develop business projects in the EU in partnership with strong local partners, BellSouth is-participating in-cellular operations in Denmark (Sonofon) and Germany (E-Plus), and mobile data operations in Belgium, Germany, France, The Netherlands and the U.K.

BellSouth has also gained considerable experience in the area of competitive networks through its operations in the United States, as well as its leadership as the key operator in Optus, the second carrier in Australia, and BellSouth Chile, a long-distance carrier in South America. With its wireless operations in Europe as a base, BellSouth is now transferring its capabilities in the competitive network area to support the Commission's initiatives to bring the benefits of competition to Europe. The initial result of this strategy has been the recent selection of BellSouth as the operating partner in the Telecom-2 consortium, which expects to be granted a license to operate a second infrastructure-based wireline network in The Netherlands.

BellSouth endorses the Commission's efforts to liberalize the European telecommunications market and agrees to many of the principles suggested in the Green Paper. BellSouth however wishes to comment on some of the key issues of the paper in this submission, including the industry structure, the framework for interconnection, and the universal service obligation.

### I. The Need for "Constructive Competition"

The expressed intent of the telecommunications liberalization initiatives as framed by the Green Paper is the creation of an environment to allow Europe to compete more effectively in the global economy. This competitive effectiveness will require superior information access, processing and transmission capabilities. Implicit in the "Green Paper" is the premise that these superior capabilities can only be gained via a superior telecommunications infrastructure fabricated from effective competition and significant private funding. The "Green Paper" further notes that significant private funding depends on investment certainty borne of a stable regulatory regime in which "non-commercial political burdens" are removed and reasonable expectations of profitability are inherent. BellSouth Europe emphatically concurs.

From this position, the "Green Paper" concludes that open, unrestricted infrastructure competition and effective competition are synonymous. In many cases, this is true. Open competition drives prices toward marginal costs thereby maximizing social surplus. This makes good economic policy in the majority of sectors wherein marginal (or, incremental) costs exceed average costs. It is not however good economic policy in those sectors in which incremental costs are chronically less than average costs. If prices equal incremental cost and incremental cost is less than average cost, investors cannot possibly recover their capital, much less realize reasonable profitability. Under these conditions rational investors would not invest.

These conditions have been observed in practice. The airline industry is an example of a segment in which incremental costs are significantly less than average fixed costs. The International Telecommunication Union (ITU) has noted the on-going effects of "destructive competition" in this sector with some disturbing implications for the telecommunications sector:

"... the international airline industry has lost almost US \$16 billion between 1990 and 1992. This is greater than the cumulative profits achieved by the industry in its first 60 years of existence."

Destructive competition in the international airline industry was foreshadowed by proportionate operating losses and market failures in the U.S. where deregulated, open competition has been in effect for over 15 years. The ITU goes on to note that:

"The telecommunication service industry and the airline industry have much in common."

In addition to high fixed cost and relatively low incremental cost similarities,

"Both are undergoing deregulation and are subject to the introduction of competition... But the recent experience of growth and profitability in the two sectors has been markedly different... So why the big difference in the fortunes of the two

World Telecommunication Union Report 1994, International Telecommunication Union.

Geneva, Switzerland, 1994, p. 8.

² Ibid.

industries? The main reason appears to be that the process of deregulation and competition has extended much further in the airline industry than in the telecommunications industry. This has been expressed as price wars (in the airline industry)... If the airline industry is to be taken as a model for the future of telecommunications, then there are some important lessons to be learned."

The fundamental lesson appears to be that open competition is not sustainable in a declining cost industry. Based on US airline experience, the sequence appears to involve a protracted initial phase in which massive amounts of money are lost and market failures are commonplace. The initial phase appears to be followed by a market consolidation phase in which the stronger players acquire their weaker competitors. Ultimately, the market is expected to be rationalized into a relative few survivors capable of sustaining viable competition.

Open competition is supposed to eliminate the incapable and make the capable more capable—but it is questionable whether the public good is truly served by the economic carnage that precedes market consolidation. As exemplified by the US airline industry, price wars produce transitory below-cost prices for consumers. In the short-run, that is good from the consumer's perspective, but it masks concomitant deterioration in service quality as competitors frantically cut costs to attempt to stay afloat. Investors simply will not risk capital under these circumstances to upgrade the industry's productive assets. Ultimately, "economic Darwinism" will rationalize the market as indicated above, but the cost will be high. Europe cannot afford the delay in reaching the same stage of market evolution that some of its international competitors have already reached.

Given the fact that some of Europe's international competitors are years ahead in rationalizing their telecommunications markets, is there some way to leapfrog the market carnage phase of open competition, identify the probable survivors and in effect, consolidate the market ahead of time? Just how hard is it to identify probable survivors? Are their identities so nebulous that we must let the market take 10-20 years to decide the issue? Consider the US, long distance market. The 1978 EXECUNET decision effectively opened that market to competition. Would a 1978 observer have projected MCI and AT&T as the principal market survivors in 1995? BellSouth believes the answer is "yes".

Based on the above, BellSouth Europe recommends that the European Commission adopt the general principle that liberalization of telecommunications infrastructure limit competitive entry to a managed number of entrants until such time as effective competition is achieved (i.e., when no single carrier has dominant market power).

³ Ibid.

⁴ Since it was the product of multiple mergers and acquisitions, it would not have been possible to project Sprint as a survivor in 1978. On the other hand, Sprint holds less than 10% of the U.S. long distance market by most measures and it is therefore questionable whether Sprint is principal market survivor or simply a niche player.

## II. The Need for Economically Efficient Interconnection Charges

### A. Development of a Framework for Interconnection

It is fairly common for interconnection charges to constitute 40-60% of a typical alternate telecommunications service provider's total operating costs. This emphasizes the importance of reasonable interconnection charges for the creation of sustainable competition. It would not be an overstatement to say that the success or failure of the European Community's telecommunications liberalization initiatives may hinge on the establishment of an appropriate framework for the establishment of these charges.

This framework should include the setting of objectives that promote economic efficiency through effective competition. In other words, interconnection charges should:

- Reflect cost causation
- Stimulate efficiency
- Promote effective competition

BellSouth Europe supports the concept that the cost causation principle is inherent in long-run incremental costs (LRIC). Both the WIK/EAC and Arthur Andersen interconnection studies prepared for the Commission, support the cost causation nature of LRIC. These studies also report the paradox that European regulators universally use Fully Distributed costs (FDC) as the basis for pricing decisions. There is sufficient reason for using FDC for pricing in monopoly markets. By virtue of its basis in the typical PIT's accounting system, FDC is conceptually simple, auditable and "balances to the books" but, unfortunately, it is not consistent with cost causation. It is therefore not useful for pricing decisions in competitive markets. The WIK/EAC study notes that "... reported costs are often not at all reflective of the actual cost causation." The Arthur Andersen study conclusively demonstrates the fallacy of using FDC for economic decision-making in its graphic "Death Spiral" example.4 With convincing evidence that FDC in all its variant forms cannot support the development of cost-based interconnection, BellSouth Europe supports the Green Paper's (Part II, p. 73) position that "Regulatory authorities should have a responsibility ... for ensuring ... cost-oriented pricing structures..." This should be done by insisting on LRIC-based interconnection charges.

"One of the prime motivations for liberalising the telecommunications sector is that incumbent operators are believed to be inefficient." Based on liberalization efforts outside the European Community (U.S., U.K., Australia, etc.), there is ample

⁷ Ibid. p. 63.

⁵ Network Interconnection in the Domain of ONP. Wisenschaftliches Institut für ... Kommunikationsdienste/European-American Center for Policy Analysis (WIK/EAC), Bad Honef, Germany, 1994, p. 89.

⁶ Arthur Andersen Study Prepared for the Commission of the European Community DG XIII. 1994, Appendix 3.

evidence this is true. In the U.S., for example, Regional Bell Operating Company productivity in terms of access lines per employee has more than doubled since divestiture in 1984. Efficiency improvements have a direct impact on international competitiveness and thus a nation's future economic health will be significantly affected by the relative efficiency of its incumbent carrier. In this vein, the Arthur Andersen study notes:

"As far as interconnect is concerned it involves ... setting interconnect charges which give incentives to the incumbent to improve its efficiency."

The study goes on to suggest a way to accomplish this goal is to adjust specific components of the interconnection charge:

"There should be only partial funding of the local access loss. This will incentivise the incumbent to improve efficiency in the provision of local access."

As indicated above, incumbents have ample room to finance these and other adjustments through efficiency improvements. In Australia, where the new alternate carrier's interconnection charge contains <u>no</u> explicit local access loss component, the incumbent, Telstra, reports record profits as a direct by-product of its efficiency improvements efforts. AT&T's Chief Executive Officer Robert Allen has stated in U.S. congressional committee hearings that competition has made AT&T a more profitable company because of AT&T's greatly increased efficiency. The record is clear—effective competition benefits the incumbent. To date, the record does not present as positive a picture for the newcomers.

After 15-20 years of competition, AT&T still commands 2/3 of its contested US long distance market and BT has only surrendered about 10% of its overall market (while Mercury reports operating losses and becomes more of a niche-player by recently exiting certain markets). The conventional assumption that ex-monopolists are easily attacked by their new, market-hardened competitors has proven wrong for two fundamental reasons:

- Monopoly-bred inefficiency plays into the incumbent's hands by (1) enabling dramatic improvements in operating results through relatively easy "fat-cutting" and (2) justifying high interconnect prices designed to largely recoup the incumbent's past inefficiencies. The combination of high prices and significantly reduced costs virtually guarantee the kind of economic rejuvenation Telstra, Telecom New Zealand, BT and other incumbents have experienced with the onset of competition.
- The incumbent brings enormous structural advantages to the competition in the
  form of a "paid-for" infrastructure, name recognition, brand loyalty, consumer
  inertia, preferential access to data regarding the calling habits of its interconnecting
  competitor's customers, superior access to infrastructure, established
  regulatory/legislative relationships, etc.

^{*} Ibid., p. 166.

⁹ <u>Ibid</u>., p. 185.

The WIK/EAC study takes note of the incumbent's inherited structural advantages in its executive summary:

"Even with interconnection charges set as low as marginal or average incremental costs, the incumbent is unlikely to lose its market quickly. Usually there are sunk costs (that entrants have to expend), switching costs by customers, name recognition, brand loyalty and other advantages of the TO over entrants that prevent consumers from switching to entrants even at substantially lower prices. For example, in the UK, Mercury only gained about 10% in its first ten years." 10

The Arthur Andersen study comes to the same conclusion. It goes on to suggest how this formidable barrier to effective competition can be offset:

"One practical way to offset such structural advantages is to give the competing new entrants temporary abatements of interconnect charges, expressed in terms of a percentage of the charges paid by the entrant for the interconnect capabilities it receives. This was the approach adopted in the U.S. after the initial divestiture of AT&T." 11

As regards this last point, MCI received interconnection price abatements as high as 65% [the so-called Exchange Network Facilities for Intercity Access (ENFIA) discounts] until the late 1980s—ostensibly to compensate for unequal access. Entrants' unequal access to the local network is second only to high interconnection prices as the most formidable barrier to effective competition. Equal access involves the following principal components:

- Preselection
- · Neutral Provisioning
- Ubiquitous end office access
- Unbundled interconnection charges

In short, equal access means the incumbent and the entrant share the same mode of access to their respective customers and, furthermore, their customers have the same mode of access to their carrier of choice. It also means that infrastructure requested by the entrant's and the incumbent's service provision (retail) units receive the same level of priority of provisioning, service and repair:

"Competitors are disadvantaged if they cannot order and obtain leased lines, circuit rearrangements, and enhanced services on reliable commercial schedules that are equivalent to the service a TO provides to its own departments or subsidiaries. Experience in liberalised markets (U.S., U.K.) suggests that regulators need to establish a requirement for equal provisioning and to monitor TO performance to ensure equal access." 12

¹⁰ WIK/EAC, p. 10.

¹¹ Arthur Anderson, p. 172.

¹² WIK/EAC, p. 37.

Possibly the most effective way to ensure equal access and confidential treatment of entrant's commercially-sensitive traffic data is to separate the TO's infrastructure (wholesale) and service provision (retail) units into different organizations under a TO holding company. The creation of such an organization may also lead to significant efficiency gains. Telecommunications infrastructure is characterized by high fixed costs, low marginal costs and overall economies of scale. An infrastructure organization's operating results are thus improved to the extent it is able to spread its fixed costs over a wider circle of paying customers. Such an organization would tend to welcome new business whether it came from an entrant or the incumbent's own service provision unit. The incumbent's service provision unit would naturally take a contrary view. The best ways to ensure neutral treatment for all service providers is to organizationally separate the incumbent's infrastructure and service provision units.

In summary, BellSouth Europe's comments regarding a framework for the development of interconnection charges are:

- s Interconnection charges will have a major impact on the potential success of infrastructure liberalization
- § Interconnection charges should reflect cost causation and, as such, should be based on long-run incremental costs (LRIC).
- Interconnection charges should motivate incumbent efficiency.
- Rather than handicapping incumbents, past monopoly-bred inefficiencies often greatly advantage these incumbents when competition with new entrants requiring interconnection begins.
- s Incumbents bring enormous structural advantages to competitive situations.
- To develop effective competition, interconnection charges must be adjusted to motivate incumbent efficiency and counterbalance the incumbent's considerable structural advantages.
- Effective competition is largely dependent upon equal access to infrastructure by competing parties. This is most easily accomplished by organizationally separating the incumbent's infrastructure and service provision units. Where equal access does not exist, interconnection charges should be adjusted to achieve the same competitive effect (e.g., the AT&T ENFIA discount to MCI).

## B. Development of Interconnection Charges

Although not specifically acknowledged in either the WIK/EAC or Arthur Andersen reports, it is nonetheless clear that developing the right set of interconnection charges is not subject to mathematical certainty. The necessary adjustments to interconnection charges cited above can only be subjectively determined. This fact disturbs many regulators since subjective decisions are the most difficult to defend. This does not mean reasonable bounds (so-called "sanity-checks") cannot be established for interconnection charges. Enough experience with interconnection charges has been gained over the past several years to establish bounds of reasonableness.

Australia has demonstrated that a busy period composite access charge rate of approximately 0.023 US\$ per minute in concert with partial equal access produced record profits for the incumbent, Telstra. It also enabled the new entrant, Optus, to apparently develop a viable business. This suggests that full equal access and the same composite access charge rate may be within an appropriate range. The Arthur Andersen study cites a recent OVUM study of worldwide interconnection charge experience.13 The OVUM study found that whatever the theoretical basis for setting charges, new entrants need to have interconnection charges of less than approximately 0.010 US\$ for a three-minute call to create and maintain a viable business. This correlates fairly well with Australian experience. Regulators should thus be fairly confident that peak period interconnection charges in the range of 0.02 to 0.03 US\$ per minute for essentially equal access are reasonable. In fact, to avoid the long drawn-out, litigious interconnection charge "negotiations" that have occurred in the past, European regulators should initially establish a range of reasonable outcomes. The Australian regulatory agency, AUSTEL, did this with great success as noted by the ITU in its report:

"More often than not interconnection arrangements have been established only after a new market entrant has been licensed and the consequent delays have greatly handicapped the expansion of new services. This has been the case in the United States, the United Kingdom, New Zealand and most recently, Poland. In Australia, the regulatory body, AUSTEL, laid down principles for equitable interconnection from the outset and this has meant that a competitive environment has been established much more quickly than in other countries. Regulators elsewhere in the world looking to license new market entrants would do well to follow AUSTEL's example." 14

Beyond establishing principles, AUSTEL prescribed the 0.023 US\$ composite peak period interconnection charge cited above <u>before</u> Optus and Telstra initiated interconnection negotiations. With this behind them, a workable agreement framework was completed in about six weeks with only minimal need for AUSTEL arbitration.

BellSouth Europe agrees with the ITU that regulators would do well to follow AUSTEL's example in establishing interconnection parameters at the start of the liberalization process. Regarding use of the Australian approach to telecommunications liberalization as a model, the economist Henry Ergas comments:

"Competition is likely to establish itself relatively quickly in significant parts of the Australian market... This is for three primary reasons. The first is that the government has put in place a framework of competitive safeguards which anticipates and solves in advance many of the difficulties which have hindered the establishment of competition in the other markets where liberalisation has been attempted... this framework should significantly reduce the lead time involved in the transition to competition and allow an early move to a fully commercial market. A second reason has to do with the selection of the competing carrier. In the United

¹³ Arthur Andersen, p. 181.

¹⁴ ITU, p. 69.

Kingdom and the United States, the transition to competition involved entry by players with little experience of major common carrier markets and whose financial resources were slight relative to the task they were taking on. In contrast, the winning consortium in Australia involves major foreign carriers which ... have similar or even greater technical resources than the incumbent carrier and ... ready access to finance. It is only natural to expect that this will be reflected in a more rapid erosion of the incumbent's bottleneck control... Finally, the fact is that the Australian market involves relatively powerful and sophisticated major customers. well aware of the range of services and service options available in competitive markets overseas... Taken together, these factors mean that the development of workable competition in Australian telecommunications will be measured in years rather than, as in the United Kingdom and the United States, in decades... This is primarily because the greatest benefits of liberalisation come not from the inroads made by the entrants, but from the improved performance by the incumbent. In no country have the entrants secured more than 15 to 20 percent of the market as a whole, and even in the Australian circumstances they are unlikely to secure much more. What really counts for improved economic performance are, consequently, the efficiency gains made in the remaining 80 percent, that is, the market held by the established carrier."15

In light of the market liberalization lead established by some of its major trading partners, the European Community should reduce the period required to reach the benefits of effective competition by avoiding the mistakes of these trading partners as Australia has done. This suggests a need for close attention to the Australian model.

Ergas, Henry, "An Alternate View of Australian Telecommunications Reforms," from Implementing Reforms in the Telecommunications Sector—Lessons from Experience, edited by Biorn Wellenius and Peter A. Stern, The World Bank, Washington, D.C., 1994, p. 250.

# III. The Need to Harmonize Public Policy, International Competitiveness and Economic Efficiency

Economic efficiency theory does not address those situations in which there are compelling social reasons for producing designated goods and services at prices which do not cover production costs. Historically, universal telephone service has been one of these designated goods and services. The social costs of universal service have traditionally been recovered via internal cross-subsidies provided by consumers of other telecommunications services including interlocal and international long distance. It is in this context that European Community member states and their global trading partners face the need to reconcile the social impact of growing global economic competition with potential technological expansion of universal service. In concert with the consensus that a society's telecommunications capabilities and its ability to compete in the global economy are tightly correlated, the question becomes to what extent any member state should compromise economic efficiency by significantly expanding universal service.

The "Green Paper" appears to suggest that such a compromise is worthwhile to provide egalitarian access to advanced telecommunications services, possibly including multimedia. BellSouth Europe suggests this may be feasible via some changes in the way universal service is funded; i.e., there may be a means of bridging some of the gap between economic efficiency and expanded universal service.

If expanded universal service is a reasoned response to vital public demand, the discipline imposed by correlating cost causation with cost recovery can be at least partially maintained via public funding. In this way, the expanded cost of universal service can be spread over all economic sectors avoiding disproportionate impact on the telecommunications sector and international competitiveness.

Since most developed countries support the traditional definition of universal service, BellSouth Europe does not see immediate threat to the European Community's relative international competitiveness by continuing to fund universal service via the telecommunications sector alone. There are time constraints, however, on viably maintaining the status quo. Some of Europe's international trading partners are considering measures that would limit the impact of universal service on economic efficiency. These measures include:

- Targeting subsidies to the truly marginal consumer.
- Rebalancing local service and long distance tariffs to better align prices with costs.

Proponents of these measures maintain universal service's fundamental social aims can be realized without unduly compromising economic efficiency:

"The breakup of AT&T in 1984 into a long-distance (and manufacturing) component and seven local-service companies, the Bell operating companies, created the opportunity for billions of dollars of annual economic efficiency gains for the U.S. economy. These potential annual efficiency gains arise in part from the

establishment of a rational price system for telephone services. At the time of the breakup (and to a lesser extent today) basic access to the telephone network received a large cross subsidy from other telephone services; that is, the price of basic access was well below its incremental (or marginal) cost. The largest component of this cross subsidy arises from the prices of long-distance services which are well in excess of their incremental cost.

... Economists were aware of this problem and in the 1970s recommended that long distance prices be decreased and basic (local) access prices be increased, which eliminates the loss in economic efficiency. Income-distribution problems arise, but these problems can be solved by a targeted subsidy to low-income households...

Our (price elasticity) estimates also find an important effect of long distance prices on the demand for basic (local) access. Indeed, the effect of long distance prices is sufficiently large that a revenue-neutral rebalancing of telephone prices, which would reduce the subsidy for basic (local) access and lower long-distance prices would lead to large gains both in economic efficiency and increased telephone penetration in the United States. Thus, the perceived trade-off between economic efficiency and telephone penetration (universal service) is unlikely to exist anymore. The (Emphasis and parenthetical remarks added)

In fact, telephone penetration increased from 91.4 percent to 93.3 percent of US households in the 1984-1990 period. During this period, basic local service prices increased about 35 percent. This increase was balanced by long distance decreases of about the same amount. Targeted subsidies in the form of deeply-discounted "lifeline" local service rates were also made available to low-income households during this period. A policy of targeted subsidies and tariff rebalancing in the U.S. has had the dramatic effect of improving both economic efficiency and universal service. The Hausman, et al., study however notes that steps in the United States toward cost-based pricing are well short of the goal:

"... the current combination of federal and state policy toward regulation of telephone service in the United States has an efficiency loss in the billions of dollars and retards the advancement of the "Information Age" which many individuals believe will increase productivity and lead to many new services for telephone consumers." 18

Both the WIK/EAC and Arthur Andersen studies agree that the long-term objective should be to remove from the telecommunications sector the burden of financing social policy (universal service, below-cost local service and geographic averaging). As demonstrated in the U.S., a carefully crafted system of targeted subsidies, tariff balancing and public funding has the potential to realize both important social objectives and improved economic efficiency. The Arthur Andersen study points out that tariff rebalancing alone can reduce appropriate universal service obligations

¹⁶ Hausman, Jerry, Timothy Tardiff, and Alexander Belinfante, "The Effects of the Breakup of AT&T on Telephone Penetration in the United States," Federal Communications Commission, 1990, pp. 178-179.

17 Ibid., p. 182.

¹² Xbid., pp. 183-184.

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(USO) and local access service deficits to 2% or less of the average European Community incumbent's annual revenues. P Achieving the long-term objective is thus possible. BellSouth Europe recommends that infrastructure liberalization utilize appropriate proportions of targeted subsidies, tariff balancing and public funding to harmonize social goals in the short-to-mid-term with the ultimate goal of funding social policy from public sources.

¹⁹ thid, p. 158.

### IV. Summary of Comments from BellSouth Europe

- 1. Private funding of world-class telecommunications infrastructure depends on investor confidence in receiving acceptable rates of return. Open competition in a declining cost industry such as telecommunications is unlikely to generate sufficient investor confidence since prices tend to approach marginal production costs and cannot therefore recover the investor's capital. This is especially true if the industry is expected to be burdened with significant increases in social costs such as expanded universal service. BellSouth Europe recommends that the Commission adopt the position that competitive entry must be limited to 2 to 3 proven infrastructure providers to ensure constructive competition and the ability to attract long-term private capital.
- 2. The Commission should establish guidelines that promote the development of interconnection charges that:
  - Reflect cost-causation
  - Stimulate economic efficiency
  - Promote effective competition

To achieve these objectives BellSouth Europe recommends that interconnection charge development be subjected to the following guidelines:

- Interconnection charges should largely reflect long-run incremental costs (LRIC) caused by the interconnection.
- Since the incumbent carrier has ample latitude to rationalize its costs in the short-term, proportionate recovery of joint and common costs should be limited by global "best practice" benchmarks for such costs established by incumbents in other fully competitive markets.
- Interconnection charges should be sufficiently reduced to factor-out the incumbent's structural market advantages and superior access advantages (if any).
- A range of reasonable outcomes from the interconnection charge negotiations between the incumbent and entrant should be established at the start. Based on experience in constructively competitive markets, BellSouth Europe recommends a standard, peak-period, interconnection charge range of 0.02 to 0.03 US\$ per minute under full equal access conditions.
- In recognition of the consensus that telecommunications is a declining cost industry, interconnection charges should be subject to a Consumer Price Index minus X (CPI-X) time gradient where the productivity factor, X, is such that CPI-X is normally negative.

- Local access loss and the universal service obligation should be funded independent of interconnection charges. In both cases, proportionate recovery should only be partially funded to promote incumbent efficiency.
- 3. Any expansion of universal service beyond its traditional voice telephony basis should be publicly funded to avoid compromising the European Community's global economic competitiveness. Furthermore, the long-term objective should be removal of the burden of funding social policy (universal service, below-cost local service and geographic averaging) from the telecommunications sector beginning with a combination of (1) targeted subsidies, (2) rebalanced tariffs and (3) public funding. Ultimately, social policy as defined above should be reducible to no more than 1-2% of industry revenues based on "best practice" benchmarks. At this level, the transition to full public funding of social policy can probably be effected at minimal political risk.

BellSouth Europe believes Commission adoption of these recommendations in concert with other recommendations of the Green Paper will produce effective and sustainable competition in the telecommunications sector. Such competition will yield benefits in increased economic competitiveness for the member states and increased social benefits for the populations covered.