

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

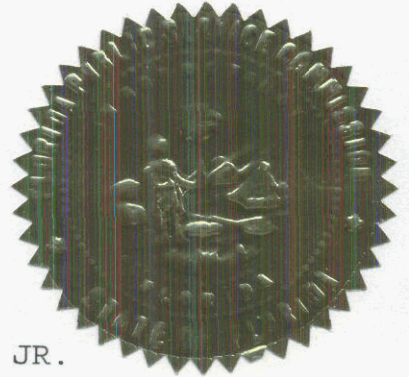
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In the Matter of : DOCKET NO. 990649-TP
: :
INVESTIGATION INTO PRICING :
OF UNBUNDLED NETWORK :
ELEMENTS. :

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VOLUME 11

Pages 1543 through 1742



PROCEEDINGS: HEARING
BEFORE: CHAIRMAN J. TERRY DEASON
COMMISSIONER E. LEON JACOBS, JR.
COMMISSIONER LILA A. JABER
DATE: Wednesday, September 20, 2000
TIME: Commenced at 9:15 a.m.
PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida
REPORTED BY: KORETTA E. STANFORD, RPR
Official Commission Reporter
Division of Records & Reporting
APPEARANCES: (AS HERETOFORE NOTED.)

FLORIDA PUBLIC SERVICE COMMISSION

DOCUMENT NUMBER-DATE

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FPSC-RECORDS/REPORTING

I N D E X

WITNESSES

3	NAME:	PAGE NO.
4	JIM STEGEMAN	
5	Redirect Examination by Mr. Ross	1548
6	JOSEPH PAGE	
7	Stipulated Prefiled Direct Testimony Inserted	1560
8	Stipulated Prefiled Rebuttal Testimony Inserted	1591
9	RONALD PATE	
10	Direct Examination by Ms. White	1613
11	Prefiled Rebuttal Testimony Inserted	1615
	Cross Examination by Mr. Bressman	1633
12	Cross Examination by Ms. Boone	1661
	Cross Examination by Mr. Melson	1672
13	Cross Examination by Mr. Sloan	1674
	Redirect Examination by Ms. White	1679
14	WILLIAM H.B. GREER	
15	Direct Examination by Mr. Edenfield	1684
16	Prefiled Rebuttal Testimony Inserted	1687
	Cross Examination by Ms. Boone	1732
17		
18		
19		
20		
21		
22		
23		
24		
25		

I N D E X (Continued)

EXHIBITS

3	NUMBER:		ID	ADMTD.
4	112	1/13/99 letter from BST to FPSC with model results	1546	1546
5	111	Exhibits attached to direct and rebuttal testimony		1557
7	113	Nonproprietary exhibits to witness Page's testimony	1558	1559
8	114	Proprietary exhibits to witness Page's testimony	1558	1559
10	115	E-mail and response to GPSC and xDSL workshop data request	1641	1684
12	116	Cost study worksheets FLLQDB (Proprietary)	1684	1684
13	117	Load coil deloading (loop conditioning) video	1730	
15	118	Page 92 of witness Riolo's testimony with notes	1741	
16				
17	CERTIFICATE OF REPORTER			1742
18				
19				
20				
21				
22				
23				
24				
25				

P R O C E E D I N G S

(Transcript continues in sequence from Volume 10.)

CHAIRMAN DEASON: Call the hearing to order. The witness is in his place. And we were in the middle of cross examination. Is there anything we need to address before we resume cross examination?

MR. ROSS: Yes, Mr. Chairman, just a couple of housekeeping matters. The exhibit that Ms. Caldwell had identified yesterday, for which I did not have copies, I do have copies and have provided to all the parties and the Staff and Commissioners and would ask that the January 13, 1999, letter from Ms. Carver to the Commission be marked as the next exhibit which, I believe, is 112?

CHAIRMAN DEASON: That is correct. It will be identified as Exhibit 112. Are you moving this exhibit at this time?

MR. ROSS: Yes, Mr. Chairman.

CHAIRMAN DEASON: Any objection to Exhibit 112? Hearing no objection, show then, Exhibit 112 is admitted.

(Exhibit 112 marked for identification and admitted into the record.)

MR. ROSS: Thank you, Mr. Chairman. We have also distributed this morning errata sheets to the depositions of Mr. Stegeman, Ms. Caldwell, and Mr. Latham. And I'm not sure whether the chair would prefer just

1 simply attach those to the respective depositions or mark
2 them as an individual exhibit.

3 CHAIRMAN DEASON: I think, we can simply attach
4 them to the depositions which have already been
5 identified.

6 MR. ROSS: Thank you, Mr. Chairman. That's all
7 of the housekeeping matters BellSouth has.

8 CHAIRMAN DEASON: Very well. Any other
9 preliminary matters?

10 Okay. We can resume with the cross examination.
11 And I'm not -- Mr. Melson, did you finish your cross
12 examination?

13 MR. MELSON: No, but I don't have any.

14 CHAIRMAN DEASON: Oh, okay. That's fine. Don't
15 be bashful. Anybody -- the witness is available for
16 cross.

17 MS. BOONE: Nothing for me, thank you.

18 MR. BRESSMAN: Nothing from BlueStar. I thought
19 AT&T still had a few more questions.

20 MS. BOONE: He said he's done.

21 MR. LAMOUREAUX: I was finished.

22 CHAIRMAN DEASON: That's what I thought, okay.
23 Staff?

24 MS. CALDWELL: Staff has no questions.

25 CHAIRMAN DEASON: Commissioners? Goodness, we

1 should break for the evening more often. I apologize. I
2 had no idea that there was going to be no more cross
3 examination. You could have been dismissed last evening.

4 THE WITNESS: I brought two suits, so I was
5 prepared.

6 MR. LAMOUREAUX: I don't think the witness is
7 disappointed.

8 CHAIRMAN DEASON: Okay. We do have an exhibit
9 -- oh, I'm sorry, redirect.

10 MR. ROSS: I just have a few questions on
11 redirect, Mr. Chairman.

12 CHAIRMAN DEASON: We were on too good of a roll.

13 JIM STEGEMAN

14 continues his testimony under oath from Volume 10:

15 REDIRECT EXAMINATION

16 BY MR. ROSS:

17 Q Mr. Stegeman, good morning. Mr. Lamoureux asked
18 you yesterday about allocating fiber based on DSOs and
19 DSIs. And, I believe, you testified the allocation of
20 fiber was somewhat arbitrary. Do you recall those
21 questions?

22 A Yes, I do.

23 Q Can you look at allocation of fiber in a vacuum,
24 as Mr. Lamoureux suggested?

25 A No, you can't. If you look at the BSTLM in the

1 real network that is designed, the fiber that is deployed
2 and sized needs to look at the electronics placed on the
3 end. You need to look at the demand out in the network to
4 determine those fiber sizes.

5 If we were in a vacuum, there would only be one
6 fiber strand size in the model, that 12-strand fiber size.
7 But if you look at the inputs to the model and what the
8 model produces, the model produces or has as inputs
9 multiple strand sizes ranging from 12 strands up into the
10 200s.

11 And as the model runs, it installs fibers from
12 the 12s up to the 200s. So, there must be something
13 behind that different -- differentiation in the number of
14 strands installed. And what really drives that is the
15 electronics on the end.

16 So, to have a consistent approach to the cost
17 and to be most realistic, what we looked at is the
18 electronics on the end, which are the DLC systems. The
19 DLC systems are driven by DSOs. And the sizing of those
20 DLC systems are driven by DSOs.

21 And as you increase the number of DLC systems in
22 your network, you increase the number of rings, which
23 leads to an increase in the number of fibers. So, in
24 effect, the DSOs that you have sitting out there do have
25 an impact on the fibers that are placed. So, therefore,

1 in a real network and in the actual BSTLM the fibers are
2 driven by DSOs.

3 Q Mr. Lamoureux asked you about using a complete
4 portfolio of inputs from another carrier in a
5 forward-looking cost study; do you recall those questions?

6 A Yes, I do.

7 Q Can you give an example of what you meant by
8 looking at a complete portfolio of inputs?

9 A Yes, I can. Let me just give a simple example.
10 Considering that you have two vendors, vendor A and vendor
11 B, vendor A provides for you some electronic equipment,
12 but they also provide for you some drop equipment. And
13 you've negotiated with them to give you a very good price
14 on your drops.

15 In exchange for getting the good price on the
16 drops, they also want you to buy some electronic equipment
17 from them at a market rate, so you do that. With vendor
18 B, vendor B gives you a very good rate on the electronics,
19 because they know you are buying electronics from vendor
20 A.

21 So, due to the competition of the two vendors,
22 you are getting a good price on vendor B's electronic
23 equipment and for vendor A, you're getting a very good
24 price on drop equipment.

25 When you look at it, exclusive of the vendors

1 and you just look at the raw numbers and you want to pick
2 inputs into the model, the natural tendency is to pick the
3 vendor A price for drop, if that's what you're buying from
4 vendor A. And from vendor B, you'd want to pick the
5 electronics cost, because they appear to be less.

6 If you did that and the company was buying in
7 that manner, they would not be able to achieve the cost on
8 the drops, if they were not buying the electronics from
9 vendor A. And vendor B's electronic prices would not be
10 as low, if they knew that you were not buying electronics
11 from vendor A.

12 So, in effect, all the prices are interrelated.
13 And that's what I referred to as a portfolio, that you
14 really have to look at all the prices together and look at
15 what's behind the prices before you can just say I need to
16 pick that price, because it's the lowest.

17 Q To your knowledge, is Mr. Donovan and
18 Mr. Pitkin, on behalf of AT&T and MCI, advocating using a
19 complete portfolio of inputs from a single carrier as
20 adjustments to the BSTLM as Mr. Lamoureux's question
21 hypothesized?

22 A No. It appears that they're picking and
23 choosing inputs, like I explained, that they're looking at
24 just price in attempting to pick the lowest price for each
25 particular item and then running the model. And again, it

1 ignores the interrelationships of all the products and
2 prices behind that.

3 Q Mr. Lamoureux also asked you about the tables
4 that appear on page 19 and 20 of your rebuttal testimony.
5 And if I could just quickly ask you to look at the table
6 at page 20 which, as I understood your testimony response
7 to Mr. Lamoureux, is intended to compare the investment in
8 these particular facilities as generated by the BSTLM as
9 filed by BellSouth on August 16, 2000. The BSTLM with
10 BCPM loop inputs and the proposal by Mr. Donovan and
11 Mr. Pitkin as contrasted to BellSouth's booked amounts for
12 these investments; is that correct?

13 A That is correct.

14 Q Mr. Lamoureux suggested that comparing the
15 company's booked investments with the investments
16 generated by the BSTLM was an apples to oranges
17 comparison, because it may include such things as D-slams
18 and the like; do you recall that question?

19 A Yes, I do.

20 Q Do you agree with Mr. Lamoureux's suggestion,
21 that this is an apples to oranges comparison?

22 A No, I do not. You have to consider that the
23 BSTLM is an abstract, and it's building a model, and you
24 have to look at what is actually in place to kind of get a
25 sanity check of what the model should produce.

1 So, what we looked at is we looked at the booked
2 amount, and it's \$7 billion of network plant, and we
3 realize that that includes more than just the local loop.
4 And based on my experience, the local loop makes up
5 anywhere from 75% to 85% of that plant.

6 And if you just assumed 80% and you multiplied
7 it by that \$7 billion, you'd end up with around \$5.7
8 billion of local loop investment. And that is what should
9 be used as the apples to apples comparison or a sanity
10 check of what the models produce.

11 Q Do you have Exhibit 112 in front of you, which
12 is the letter from Mr. Carver to the Commission?

13 A Yes, I do.

14 Q And I'll represent to you that this is the
15 results of the BCPM, with the Commission-ordered
16 adjustments in the universal service proceeding. Is it
17 possible to determine from the information in this report
18 the investments in those same accounts that are generated
19 by the BCPM using Commission-approved inputs?

20 A Yes. If you look at this, the top line provides
21 the loop investment per line.

22 Q I'm sorry, you're on the last page of the
23 exhibit?

24 A Yes, I'm on the last page, I'm sorry. And if
25 you look at that capped amount, just taking that number,

1 for example, of \$892, you should be able to multiply that
2 by the 6.4 million lines served, which is the bottom
3 number on the page. And if you do that, it appears that
4 you'll end up with something between, I'll say, \$5 and \$6
5 billion of plant.

6 Q And how does that compare with the numbers that
7 you have reflected on page 20 of your rebuttal?

8 A If you look at page 20, and as I just mentioned,
9 if you adjust the booked amount down to what appears to be
10 the local loop amount, you'd end up with around \$5.7
11 billion. If you look at what BellSouth filed on August
12 16th, it's \$5.2 billion. If you look at what we put into
13 the model using the universal service approved inputs into
14 the BSTLM, we ended up with \$5 billion of plant. And
15 then, if you look at what the BCPM produced in the
16 universal service proceeding, it's somewhere between \$5
17 and \$6 billion. So, they're all consistent in what
18 they're producing, as far as the total network investment.

19 Q What does the fact that Mr. Donovan and
20 Mr. Pitkin's investments result in \$2.6 billion tell you
21 about the reasonableness of their proposed adjustments?

22 A To me, given that you have multiple models with
23 multiple sets of inputs producing consistent numbers that
24 are not off by a magnitude, and you look at the numbers
25 produced in Mr. Donovan's and Mr. Pitkin's analysis of

1 \$2.6 billion, it appears that it's a very unreasonable
2 number given what all the other models and all the other
3 inputs are producing.

4 Q Mr. Lamoureux also asked you whether these
5 numbers on your table on page 20 are affected by -- or
6 what cost of capital or depreciation assumptions were used
7 in calculating these figures. Does cost of capital or
8 depreciation have anything to do with the calculation of
9 these investments?

10 A No, it does not. These are before those
11 adjustments are made.

12 Q Looking at, quickly, at the table on page 19 of
13 your rebuttal testimony, which Mr. Lamoureux also asked
14 you about, and as I believe you testified in response to
15 Mr. Lamoureux, this table reflects the average loop
16 investment, annual loop investment, using the BSTLM as
17 filed on August 16, 2000, the BSTLM with BCPM loop inputs
18 and the Donovan/Pitkin proposed adjustment; is that
19 correct?

20 A Yes, it is.

21 Q Can you, again, looking at Exhibit 112, compare
22 the loop investment as generated by the BCPM using
23 Commission-approved inputs and give us some idea as to how
24 that compares with the numbers reflected on your chart?

25 A Yes. If you look at that last page of Exhibit

1 112, and we just take the capped amount of \$892 and
2 compare that to what is in my table, you see that the
3 August 16th run produced an average loop investment of
4 \$852. The BSTLM run with the BCPM inputs from the
5 universal service proceeding produced an average loop
6 investment of \$832. And if you look at what Donovan and
7 Pitkin's numbers would produce, it was \$436.

8 Q Again, Mr. Lamoureux asked you what depreciation
9 and cost of capital assumptions were used in developing
10 the average loop investment. Does depreciation or cost of
11 capital factor in, in any way, to the calculation of these
12 numbers?

13 A No, they do not. Average loop investment is
14 before you convert them into annual charge factors using
15 depreciation and cost of money.

16 Q Based on what you have provided, it appears that
17 Mr. Donovan and Mr. Pitkin's average loop investment is
18 about 1/2 of the loop investment generated by either the
19 BSTLM with BellSouth's inputs, the BSTLM with BCPM inputs,
20 or the BCPM with Commission-approved inputs. Do you
21 believe that's a reasonable approach?

22 A Yes, I do. It, again, points to the fact that
23 you need to look at consistency of the outputs. And given
24 that we're running two different models and two different
25 proceedings and the numbers are coming out within a

1 magnitude of each other, that they appear consistent, that
2 the BellSouth filed results of \$852 appear consistent.

3 And then, if you look at the Donovan and Pitkin
4 numbers, they appear about 1/2 of what BellSouth has filed
5 and 1/2 of what was approved in the universal service
6 proceeding. So, from that perspective they do appear out
7 of line.

8 MR. ROSS: Okay. No further questions,
9 Mr. Chairman.

10 CHAIRMAN DEASON: Okay. Exhibits?

11 MR. ROSS: No.

12 CHAIRMAN DEASON: Exhibit 111?

13 MR. ROSS: Yes, Mr. Chairman, Exhibit 111 into
14 the record, please.

15 CHAIRMAN DEASON: Without objection, I show.
16 then, Exhibit 111 is admitted. Thank you. You may be
17 excused.

18 (Exhibit 111 admitted into the record.)

19 (Witness excused.)

20 CHAIRMAN DEASON: The next scheduled witness, I
21 believe, is to be stipulated? No -- yes, that's correct,
22 Mr. Page.

23 MS. WHITE: Yes. At this time we would offer
24 Mr. Page's direct testimony consisting of 31 pages and
25 filed on May 1st, 2000, into the record as well as his

1 rebuttal testimony, which consists of 22 pages that was
2 filed on August 21st, 2000, two pages of which were
3 revised on September 11th, 2000. We ask that the direct
4 and rebuttal testimony be inserted into the record.

5 CHAIRMAN DEASON: Without objection, it shall be
6 so inserted.

7 MS. WHITE: There were five exhibits to
8 Mr. Page's direct and rebuttal testimony, two of which are
9 proprietary. His direct Exhibit JHP-1, his rebuttal
10 Exhibits JHP-2, and 4 were not proprietary. I guess, we
11 would ask that those be identified for the record as the
12 nonconfidential exhibits to Mr. Page's prefiled testimony.

13 CHAIRMAN DEASON: The nonconfidential exhibits
14 accompanying the prefiled testimony will be identified as
15 composite Exhibit 113.

16 (Exhibit 113 marked for identification.)

17 MS. WHITE: And then, there were two proprietary
18 exhibits, confidential exhibits, JHP-01 to Mr. Page's
19 rebuttal testimony as well as JHP-03 to his rebuttal
20 testimony are proprietary, and we'd ask those be
21 identified for the record.

22 CHAIRMAN DEASON: They shall be identified as
23 composite Exhibit 114.

24 (Exhibit 114 marked for identification.)

25 MS. WHITE: And I would move Exhibits 113 and

1 114 into the record.

2 CHAIRMAN DEASON: Without objection, show that

3 Exhibits 113 and 114 are admitted.

4 (Exhibits 113 and 114 admitted into the record.)

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BELLSOUTH TELECOMMUNICATIONS, INC.
DIRECT TESTIMONY OF JOSEPH H. PAGE
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 990649-TP
May 1, 2000

Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

A. My name is Joseph H. Page. My business address is 675 W. Peachtree St., N.E., Atlanta, Georgia. I am a Manager in the Finance Department of BellSouth Telecommunications, Inc. (hereinafter referred to as "BellSouth" or "the Company"). My area of responsibility relates to economic costs.

Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A. I graduated from Southern Polytechnic University with a Bachelor of Science degree in Applied Computer Science. I earned a Master of Business Administration degree at Georgia State University. I have attended several Bell Communications Research, Inc. ("Bellcore") courses on economic principles related to service cost studies. Within BellSouth, I have attended several Company-provided courses on digital telephone network technology.

In 1986, I was first employed at BellSouth as an Assistant Staff Manager – Economic Costs. Here I performed numerous central office switching cost

1 studies using the Bellcore Switching Cost Information System model. In
2 1990 I was promoted to Staff Manager – Economic Analysis Planning where
3 I was responsible for strategic applications of information technology to
4 service cost studies. I also served as staff consultant to economic cost
5 analysts on cost study methodology. In 1994, I accepted the position of
6 Manager – Finance and Administration for BellSouth Entertainment, Inc.
7 Here I performed business cases, profitability analyses, and pricing studies
8 for Consumer Broadband Video services using Fiber, Hybrid Fiber Coax, and
9 Asynchronous Transfer Mode (ATM) technologies.

10

11 From 1996 to 1999, as a principal of JK Page Enterprises, Inc., I provided
12 consulting services in the development and implementation of economic cost
13 studies and financial analyses to telecommunications companies. In this
14 capacity I was instrumental in developing the first Total Element Long Run
15 Incremental Cost (TELRIC) models used to set reciprocal compensation rates
16 for paging carriers. In association with INDETEC International, Inc., I
17 developed the switching module of the Benchmark Cost Proxy Model
18 (BCPM), a universal service cost model jointly sponsored by BellSouth, US
19 West and Sprint Corporation. I also authored position papers, provided
20 witness support, and filed direct testimony on behalf of the BCPM Sponsors.

21

22 In 1999 I returned to BellSouth where I managed development of Local
23 Switching, Interconnection, Remote Internet Access, and Fast Packet cost
24 studies. In late 1999 I accepted my current position in which I am
25 responsible for testifying on cost matters, internal consulting on cost and

1 business case methodology, and directing the development of switching cost
2 models.

3

4 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

5

6 A. The purpose of my testimony is to explain how BellSouth developed the
7 Unbundled Network Element (UNE) material prices for Unbundled Exchange
8 Ports, Features, Unbundled Switching, and Common Transport. In doing so,
9 I introduce a new BellSouth cost model for service and element-specific
10 switching costs. This model, the Simplified Switching Tool[®] (SST), replaces
11 Telcordia's Switching Cost Information System / Intelligent Network
12 (SCIS/IN) and Network Cost Analysis Tool (NCAT) models used in the
13 previous UNE studies.

14

15 **Q. WHAT WAS YOUR INVOLVEMENT IN THE DEVELOPMENT OF**
16 **THE SWITCHING COST STUDIES?**

17

18 A. I led the project team that created the SST beginning in December, 1999. I
19 performed research and analysis to determine how to best streamline the cost
20 study process to enable deaveraging of switching costs, and developed the
21 initial Excel spreadsheet models. I directed and coordinated the efforts of the
22 SST team as it developed the methodology, inputs, mechanized program, and
23 documentation associated with the model.

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Q. PLEASE EXPLAIN IN GENERAL THE PROCESS BELLSOUTH USED TO DEVELOP MATERIAL PRICES FOR EXCHANGE PORTS, FEATURES, UNBUNDLED SWITCHING, AND COMMON TRANSPORT.

A. Switching material prices are generally developed in two stages. The first stage of the process is to develop fundamental studies that identify material prices for basic switching functions. The basic switching functions include non-traffic sensitive line termination, call setup, and line and trunk usage. The second stage of the process is to identify, for each network element or retail service, which of the basic switching functions are used, along with material prices unique to that element or service.

Q. WHAT COST MODELS DID BELLSOUTH EMPLOY TO DEVELOP SWITCHING MATERIAL PRICES?

A. BellSouth used the Telcordia Switching Cost Information System / Model Office (SCIS/MO) to compute fundamental switching material prices. BellSouth used a newly developed model, the Simplified Switching Tool (SST) to develop material prices for individual Exchange Port, Feature, and Local Usage UNEs.

Q. WHAT WERE BELLSOUTH'S GOALS IN SELECTING COST MODELS FOR SWITCHING?

1

2 A. BellSouth had several goals in selecting or creating models for this filing:

3

● Openness,

4

● Compliance with TSLRIC and TELRIC Methodologies,

5

● Capability to Deaverage (if required),

6

● Flexibility,

7

● Streamlined Process, and

8

● Reduced Reliance Upon Proprietary Data.

9

10 **Q. WHY WAS IT NECESSARY TO CREATE A NEW MODEL?**

11

12 A. In part, the creation of the SST is an outgrowth of BellSouth's continual
13 desire to improve its cost modeling, in terms of both methodology and
14 operational efficiency. The SST, because it is based upon Microsoft Excel
15 workbooks, is inherently open and available to inspection by all interested
16 parties. The SST templates (workbooks not populated with input data) are
17 open and available for public inspection and use. This is in contrast with
18 Telcordia's SCIS/IN, which is the intellectual property of Telcordia and can
19 only be examined upon execution of a confidentiality agreement.

20

21 The suite of models (SCIS/MO, SCIS/IN, and the Telcordia Network Cost
22 Analysis Tool [NCAT]) used in the previous round of UNE studies was
23 impracticable for the purpose of wire center-specific cost studies. These
24 models were designed around a single-run orientation, which in general
25 required that results from each model be printed and then re-keyed as input to

1 the next model. This process is time-consuming and difficult in the context
2 of performing studies for almost 200 wire centers.

3

4 With SCIS/IN, BellSouth relied upon a model that, despite the best efforts of
5 its developers, required considerable lead-time to request and implement
6 changes. Because the program is coded in a traditional programming
7 language, implementation of new or revised network elements could take
8 weeks. The SST provides the flexibility to add or change elements in a
9 matter of hours. This fast programming turnaround was critical in producing
10 cost studies to comply with the Federal Communications Commission (FCC)
11 rule 319.

12

13 Another major need was to simplify the methodology used in the models,
14 while preserving the accuracy for pricing purposes. While the previous
15 SCIS/IN and NCAT methodologies were precise, they required enormous
16 amounts of input data, much of which was confidential and proprietary.
17 Furthermore, they relied upon extremely complicated algorithms to
18 determine, for each network element, the types and amounts of network
19 resources required. These algorithms required large amounts of resources to
20 research and develop, as well as to understand. The new SST algorithms are
21 more accessible and understandable. As a result, it is now much easier to
22 verify that BellSouth's switching cost studies comply with TELRIC
23 principles and accurately portray the network resources used by each network
24 element.

25

1 **Q. HOW IS THE SST STRUCTURED?**

2

3 A. The SST comprises two separate Microsoft Excel workbooks, the SST-Usage
4 (SST-U) and the SST-Ports (SST-P). In general, the SST-U covers the UNE
5 elements that were contained in NCAT (Local Switching and Common
6 Transport) and SCIS/IN (Features). SST-P encompasses all of the individual
7 Excel workbooks that BellSouth previously employed for developing
8 Exchange Port material prices.

9

10 Both SST modules are provided with a mechanized user interface that allows
11 the user to import study results from the SCIS Model Office (SCIS/MO) and
12 to generate a material price sheet for input to the BellSouth Cost Calculator[®].

13

14 **Q. DOES THE SST REQUIRE PROPRIETARY DATA?**

15

16 A. Yes. The SST as provided with this filing does rely upon some proprietary
17 data, although in much smaller amounts than SCIS/IN and NCAT. Certain
18 data values, such as feature hardware prices and switch realtime
19 specifications, are obtained from the switch vendors, Lucent Technologies
20 and NORTEL. Some Telcordia data inputs are employed, where necessary,
21 to keep the SST consistent with the SCIS/MO outputs that it uses. Finally,
22 the SCIS/MO outputs, because they are switch vendor-specific and reflect
23 BellSouth discount levels, are considered proprietary.

24

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**Q. WHAT METHODOLOGY DID BELLSOUTH USE TO DEVELOP
BASIC SWITCH FUNCTIONALITY MATERIAL PRICES?**

A. BellSouth used SCIS/MO to develop material prices for basic switch functionality.

**Q. HOW DOES SCIS/MO DEVELOP BASIC SWITCHING MATERIAL
PRICES?**

A. By essentially replicating the actual switch engineering rules provided by the switch vendors, the SCIS/MO model uses a “bottoms-up” approach to establish the fundamental switching material prices for each central office switch included in the cost study. The individual switch architecture and the switch vendors’ engineering rules are used to identify the material price drivers. The material price drivers are reflected as SCIS/MO user input data such as originating plus terminating (O+T) usage expressed in CCS (one hundred call seconds), quantity of analog lines, quantity of digital lines, processor utilization, etc. Using this input data in conjunction with the switch vendor engineering rules, material price tables, vendor discount tables, and other miscellaneous tables within the model, SCIS/MO employs equations to determine the material prices associated with the various central office functions. The functional categories express switching equipment components or groups of components on a fundamental unit basis, e.g., per line, per CCS, per call, per millisecond, etc.

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**Q. WHY DOES THE SCIS/MO APPROACH PRODUCE APPROPRIATE
LONG RUN INCREMENTAL COST STUDIES?**

A. As stated above, SCIS/MO is predicated on the engineering rules provided by the switch vendors. Underlying these rules are the following facts:

- The switch is a partitioned entity. The switch is not simply a single material price that is shared by all services and features.
- The deployment of most services and features generally do not impact the entire switch. Services and features may rely on different components of the switch depending upon the resources required to provide the proper functionality.
- Some switching components are traffic sensitive and others are non-traffic sensitive. For example, the number of switch terminations (ports) is non-traffic sensitive.

SCIS/MO's categorization of switching material price and the expression of that material price on a fundamental unit basis allows for the proper assignment of switching components that are used by multiple features and/or services. For instance, SCIS/MO's expression of the processor material price on a per millisecond basis enables the SST to determine the processor related material price of a given feature by multiplying the material price per

1 millisecond by the amount of time (expressed in milliseconds) the feature
2 uses the processor. Since the material price per millisecond is the same
3 regardless of the feature or service under study, the resulting cost will vary
4 depending upon the incremental demand the feature or service places on the
5 switch processor.

6

7 **Q. DID BELLSOUTH PERFORM A NEW SCIS/MO FUNDAMENTAL**
8 **STUDY FOR THIS UNE FILING?**

9

10 A. Yes. This study uses the SCIS/MO version 2.6.1. Previous studies for
11 Florida were performed using SCIS/MO version 2.3.

12

13 **Q. HOW DO THE BASIC SWITCHING MATERIAL PRICES FROM**
14 **THE NEW SCIS/MO STUDIES COMPARE WITH THE PREVIOUS**
15 **STUDIES?**

16

17 A. In general, switching costs have declined in the time span between the two
18 studies. BellSouth's effective discount levels have changed significantly, as
19 well. A second major conclusion is that the disparities between BellSouth's
20 two major switch technologies, the Lucent 5ESS and NORTEL DMS-100,
21 have grown smaller. For example, the cost of a basic line termination is now
22 much more similar across the two technologies than before.

23

24 BellSouth believes that the downward changes in cost are reasonable and
25 appropriate given the changes in switch architecture and price levels over the

1 past several years. Both switch vendors have introduced new switch
2 processors and peripherals that provide more capacity per dollar material
3 price than before. For example, call processing (realtime) material prices are
4 now lower with the introduction of the SM2000 processor in the Lucent 5ESS
5 and the SN70 processor in the NORTEL DMS-100. The introduction of
6 GR303 based line terminating equipment has significantly lowered line port
7 and usage costs. New OC3 capable trunking peripherals have lowered trunk
8 termination costs.

9

10 **Q. SINCE BELLSOUTH REPLACED SCIS/IN WITH A NEW MODEL,**
11 **WHY DID IT NOT ALSO REPLACE SCIS/MO?**

12

13 A. Presently, SCIS/MO meets the need to conveniently perform deaveraged
14 studies. Since the SCIS/MO process inherently looks at individual switches,
15 it already contains all the data needed for switch-specific studies. No changes
16 to the basic SCIS/MO process were needed to support wire center-specific
17 studies.

18

19 **Q. WHAT COST MODELS AND PROCEDURES DID BELLSOUTH**
20 **EMPLOY TO DEVELOP MATERIAL PRICES FOR UNBUNDLED**
21 **EXCHANGE PORTS?**

22

23 A. BellSouth used the Simplified Switching Tool - Ports (SST-P) to produce
24 material prices for Unbundled Exchange Ports. The SST-P provides non-
25 traffic sensitive material prices for a variety of line and trunk ports. For

1 UNEs, the model addresses 2-wire and 4-wire analog line ports, 2-wire Direct
2 Inward Dialing (DID) ports, Digital Direct Integration Termination Service
3 (DDITS) ports, 2-wire ISDN (Basic Rate Interface [BRI]) and 4-wire ISDN
4 (Primary Rate Interface [PRI]) ports. The 2-wire analog port can be used to
5 terminate voice grade residential, business, Centrex, PBX, and coin lines.

6

7 The model accepts, as input, a variety of line types SCIS/MO, including
8 analog lines, Access Interface Unit (AIU) lines (5ESS), TR008 digital lines,
9 and GR303 digital lines.

10

11 **Q. WHAT COST MODELS AND PROCEDURES DID BELL SOUTH**
12 **EMPLOY TO DEVELOP MATERIAL PRICES FOR UNBUNDLED**
13 **FEATURES?**

14

15 A. BellSouth used the SST-Usage (SST-U) model to compute the UNE material
16 prices for features. The SST-U uses SCIS Model Office functional material
17 prices in combination with switch vendor-specific hardware prices and
18 processor realtime estimates to identify, in material price dollar terms, the
19 resource load that each feature places upon the switch.

20

21 **Q. WHAT WERE THE OBJECTIVES OF THE SST-U FEATURE**
22 **METHODOLOGY?**

23

24 A. The first objective was to create a feature cost study model that was
25 streamlined and understandable. It should create cost studies that accurately

1 reflect UNE cost, without the extraordinary complexity and confidential data
2 requirements of SCIS/IN. Another objective was efficiency. The model had
3 to be capable of producing studies in volume, on a wire center-specific basis
4 if necessary, with mechanized input and output feeds.

5

6 **Q. HOW IS THE SST-U FEATURE MATERIAL PRICE**
7 **METHODOLOGY DIFFERENT FROM SCIS/IN?**

8

9 A. SCIS/IN contains several individual feature algorithms, each of which is
10 specific to a switch feature. For example, Three-Way Calling, Call Transfer,
11 and Call Waiting Deluxe have unique cost formulas, each with slightly
12 different assumptions about processor realtime usage due to the feature. The
13 SST, by contrast, contains about one dozen feature category algorithms.
14 Individual features are assigned to one of the categories according to the set
15 of switch resources they consume. For example, the three features
16 mentioned above are all costed with the same algorithm, because they use the
17 same basic set of switch resources.

18

19 **Q. DOES THE SST USE SCIS/IN FEATURE ALGORITHMS?**

20

21 A. No. While there are some conceptual parallels between the two models (both
22 start with the same set of basic switching resources identified by SCIS/MO),
23 the SST is a streamlined and independent approach that does not rely upon
24 SCIS/IN for any critical switching formulas or data. In some limited
25 instances, BellSouth used material prices from the SCIS/IN database as input

1 to the SST.

2

3 **Q. WHAT ARE THE ADVANTAGES OF THE SST FEATURE**
4 **APPROACH OVER THE PREVIOUS APPROACH?**

5

6 A. The first advantage is streamlined requirements of the model. As discussed
7 above, the SST requires far fewer data inputs such as feature-specific realtime
8 estimates. There are far fewer feature material price formulas to study and
9 consider.

10

11 The second advantage is efficiency, especially when performing deaveraged
12 studies. The model is designed to mechanically import the voluminous
13 switch-specific SCIS/MO studies and then create a mechanized material price
14 file for the BellSouth Cost Calculator. The number of paper worksheets and
15 reports is kept to a minimum.

16

17 A third advantage is openness. The SST material price formulas are not
18 confidential and are implemented within an Excel workbook, so they can be
19 easily examined and verified by interested parties.

20

21 **Q. HOW WERE THE SPECIFIC SST-U FEATURE CATEGORIES**
22 **DEVELOPED, AND WHY ARE THEY RELEVANT?**

23

24 A. Specific central office switch features differ in the types of switch resources
25 they consume. The processor material prices comprise one category of

1 feature-related material prices. Some of the features also tie-up an additional
2 call path. For example, a three-way call invokes another call path in addition
3 to the one established with the original call. Special hardware is required to
4 complete some of the feature calls. Finally, some feature-related calls require
5 queries to the SS7 database in order to complete the call.

6
7 In order to categorize the features, BellSouth looked at approximately 100 of
8 the most significant features in terms of demand. Included in this set were
9 the individual feature UNEs studied previously in Florida. In the spirit of
10 simplification, we did not attempt to categorize each and every switch
11 feature; only the ones with significant market interest. Based on vendor
12 documentation and examination of detailed SCIS/IN formulas, each feature
13 was assigned to a category depending on the resources it uses. For example,
14 some use only the processor. Some may use only special hardware. Some
15 use combinations of resources.

16
17 BellSouth believes that by using this approach it has created a feature cost
18 methodology that is streamlined and understandable, while at the same time
19 addressing all the features, functions, and capabilities of the switch that
20 customers are likely to use. This approach is conservative from a pricing
21 viewpoint, because it does look at only the most-commonly used features and
22 does not attempt to capture the large number of relatively obscure and little-
23 used features available.

24

25 **Q. HOW DO THE FEATURE COST RESULTS FROM THE SST**

1 **COMPARE TO THOSE FROM SCIS/IN?**

2

3 A. Given the same set of customer characteristic inputs and Fundamental Study
4 inputs, the SST will produce results that are overall very similar to those
5 produced by SCIS/IN. For any given individual feature, an SCIS/IN cost
6 study may differ somewhat from the SST cost study, because the SST
7 produces costs which represent a broad average of all the features within an
8 SST feature category.

9

10 Most of the differences between the new feature cost studies and previous cost
11 studies are due to changes in the Fundamental Study inputs, reflecting a
12 general decline in BellSouth's switching capacity costs over the past several
13 years.

14

15 **Q. WHAT COST MODELS AND PROCEDURES DID BELLSOUTH**
16 **EMPLOY TO DEVELOP MATERIAL PRICES FOR UNBUNDLED**
17 **SWITCHING AND COMMON TRANSPORT?**

18

19 A. BellSouth used the SST-Usage (SST-U) model to compute the UNE material
20 prices for Unbundled Switching and Common Transport. The SST-U
21 identifies, in material price dollar terms, the resource load that each minute of
22 use places upon the end office or tandem switch. It does this by processing
23 SCIS Model Office functional material prices in combination with switch
24 processor realtime estimates and customer calling characteristics. The model
25 also uses outputs from BellSouth's Interoffice and SS7 Fundamental Studies

1 to develop the cost per minute of use for Common Transport Mileage and
2 Facilities Terminations.

3

4 **Q. BELLSOUTH USED THE TELCORDIA NCAT MODEL FOR**
5 **PREVIOUS UNE STUDIES. WHY WAS NCAT REPLACED WITH**
6 **SST FOR THIS COST STUDY?**

7

8 A. NCAT is being replaced at BellSouth for many of the same reasons as
9 SCIS/IN. BellSouth discontinued using NCAT in 1997 and no longer
10 maintains a license to use that model. NCAT made extensive use of
11 proprietary and confidential Telcordia cost formulas derived from SCIS/IN.
12 SST contains no confidential cost algorithms. NCAT, like SCIS/IN, required
13 large quantities of detailed and proprietary inputs, for example processor
14 realtimes. SST has been simplified to require much less of this proprietary
15 data. Finally, NCAT did not lend itself well to the production of wire center-
16 specific cost studies.

17

18 **Q. HOW DID YOU COMPUTE RIGHT TO USE (RTU) FEES FOR**
19 **UNBUNDLED SWITCHING ELEMENTS?**

20

21 A. The RTU fees for network switch software were computed using a loading
22 factor approach. The loading factor represents the ratio of RTU fee
23 capitalized material price (Field Reporting Code 560C) to switch material
24 price (Field Reporting Code 377C) over the study period. The general
25 procedure for developing the loading factor is as follows:

1

2

1) Determine from Company budget forecasts the expected dollar amount for network additions in 377C plant over the study period (2000-2002).

3

4

5

2) Determine from Company budget forecasts the expected dollar amount for network additions in 560C software over the study period (2000-2002).

6

7

8

9

3) Divide (2) by (1) to compute the RTU fee loading factor.

10

11

The RTU Fee loading factor is applied to each UNE switching equipment

12

material price to compute the RTU Fee material price. The RTU Fee material

13

price is passed to the BellSouth Calculator, which converts the material price

14

to cost.

15

16 **Issue 7: "What are the appropriate assumptions and inputs for the following**

17

items to be used in the forward-looking recurring UNE cost studies?

18

19

(a) network design (including customer location assumptions);

20

(b) depreciation;

21

(c) cost of capital;

22

(d) tax rates;

23

(e) structure sharing;

24

(f) structure costs;

25

(g) fill factors;

- 1 **(h) manholes;**
- 2 **(i) fiber cable (material and placement costs);**
- 3 **(j) copper cable (material and placement costs);**
- 4 **(k) drops;**
- 5 **(l) network interface devices;**
- 6 **(m) digital loop carrier costs;**
- 7 **(n) terminal costs;**
- 8 **(o) switching costs and associated variables;**
- 9 **(p) traffic data;**
- 10 **(q) signaling system costs;**
- 11 **(r) transport system costs and associated variables;**
- 12 **(s) loadings;**
- 13 **(t) expenses;**
- 14 **(u) common costs;**
- 15 **(v) other. "**

16
17

18 **Q. TO WHICH OF THE ITEMS ARE YOU RESPONDING?**

19

- 20 A. I will discuss items (o) switching costs and associated variables and (p) traffic
21 data. For the purpose of my responses I assume that "traffic data" means data
22 that address the characteristics of line and trunk usage, for example, the
23 number of calls in the switch Busy Hour. I will first discuss the appropriate
24 network design for TELRIC switching cost studies, and then the specific
25 switching cost and traffic data inputs associated with each of the major

1 switching cost modules: SCIS/MO, Exchange Ports, Features, and Switched
2 Usage and Common Transport.

3

4 **Q. WHAT ARE THE APPROPRIATE NETWORK DESIGN**
5 **ASSUMPTIONS FOR END OFFICE AND TANDEM SWITCHING?**

6

7 A. The FCC's First Report and Order stated that TELRIC cost studies should be
8 based on the most efficient available technology using existing wire center
9 locations. BellSouth's TELRIC SCIS/MO studies comply with this principle
10 by assuming all digital switches and by using the latest switch technologies
11 available from SCIS/MO at the time the study was performed. Complexes of
12 host and remote switches are used where applicable to create the most
13 efficient possible integrated network. The FCC has affirmed that the ILECs'
14 existing host/remote relationships, as identified in the Telcordia Technologies
15 Local Exchange Routing Guide (LERG), represent the most efficient and
16 cost-effective switch network configuration available.¹

17

18 A second major element of efficient network design is loop technology.
19 While the switching studies do not include loops, they must be designed to be
20 compatible with the most economically efficient loop designs. BellSouth's
21 switching cost studies use integrated digital loop carrier (IDLC) equipment in
22 the same proportions as BellSouth's loop studies.

23

24

25 ¹ In the Matter of Federal-State Board on Universal Service, Forward-
Looking Mechanism for High Cost Support for Non-Rural LECS, Tenth
Report and Order, October 21, 1999, at para. 323.

1 **Q. WHAT DID BELLSOUTH DO IN THE CASE WHERE EXISTING**
2 **WIRE CENTER LOCATIONS CONTAIN ANALOG SWITCHES?**

3

4 A. Based on BellSouth Network Planning information and engineering judgment
5 the SCIS/MO analyst selected a digital switch to replace each existing analog
6 switch.

7

8 **Q. WHAT ARE THE MOST IMPORTANT ASSUMPTIONS AND INPUTS**
9 **FOR THE SCIS/MO FUNDAMENTAL STUDY?**

10

11 A. While the SCIS/MO studies require a large number of individual inputs for
12 each wire center, the most important are:

- 13 • Type of line terminations used,
14 • Type of trunk terminations used,
15 • Vendor discounts,
16 • Type of switch processor equipment used, and
17 • Usage characteristic inputs.

18

19 **Q. HOW DOES THE SCIS/MO PROCESS INCORPORATE**
20 **INTEGRATED DIGITAL LOOP CARRIER?**

21

22 A. The version of SCIS/MO used in the study (2.6.1) uses GR303 terminations
23 exclusively, where available, for exchange ports on the Lucent and NORTEL

24

25

1 switches². The model provides GR303 material prices for both "Plain Old
2 Telephone Service" (POTS) and 2-wire ISDN lines. From the BellSouth
3 Telecommunications Loop Model[®] (BSTLM), we obtained by wire center the
4 percent of switched local exchange lines terminated on Digital Loop Carrier
5 (DLC). This percentage was used to compute the number of Digital lines and
6 the number of Analog lines terminated on each switch.

7

8 **Q. WHAT TYPES OF VENDOR DISCOUNTS DID BELLSOUTH USE IN**
9 **THE SCIS/MO STUDIES?**

10

11 A. BellSouth typically experiences two levels of discounts when purchasing
12 central office switch equipment. The first, which I shall call the
13 "replacement" discount, is the discount level that BellSouth typically receives
14 when purchasing an entire central office switch, including the core "getting
15 started" components of the switch and enough line and trunk equipment to
16 satisfy demand over the engineering planning horizon³. Usually this purchase
17 is made to replace an older analog switch with a new digital switch, and
18 BellSouth receives relatively larger discounts from the vendors as an
19 incentive to do such replacements.

20

21 The second type of discount, which I shall call the "growth" discount, applies

22

23 ² GR303 terminations are not currently available on NORTEL remote
24 switches. The BellSouth SCIS/MO study therefore uses TR-008 digital
terminations for NORTEL remotes.

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Reserved

25 ³ BellSouth's planning horizon for switching is typically 2 to 3
years.

1 when BellSouth is purchasing equipment to increase the capacity of an
2 existing digital switch. This discount is significantly lower than the
3 promotional replacement discounts. The majority of BellSouth's forward-
4 looking switching equipment expenditures are for growth jobs.

5

6 **Q. HOW WERE THE SWITCH DISCOUNTS USED IN THIS SCIS/MO**
7 **STUDY DETERMINED?**

8

9 A. Growth discounts are stated in BellSouth's contracts with the switch vendors.
10 Replacement discounts were derived as follows:

11

12 1) Actual orders for replacement offices were used to determine the
13 appropriate switch engineering inputs into SCIS/MO Release 2.6.1.
14 SCIS/MO was run using a zero discount to obtain the non-discounted list
15 price for the equipment.

16

17 2) Actual billing for the above replacement orders was obtained from
18 accounting records. The actual billing was then compared to the SCIS/MO
19 non-discounted runs to determine the actual discount received.

20

21 3) The entire set of offices was input into SCIS/MO and the discount rate was
22 manually adjusted, using an iterative process, until the discounted pricing
23 from SCIS/MO approximated the actual billing shown in the accounting
24 records for the set of offices.

25

1 This replacement discount was applied to all components in SCIS/MO labeled
2 as "getting started" material prices. For the SCIS material price categories
3 that grow over time, such as Line Termination material prices, BellSouth
4 applied a melded discount. The meld was developed using the growth
5 discounts as stated in our switch vendor contracts and the replacement
6 discount as determined above. Those discounts were weighted based on line
7 counts being added under each discount.

8

9 **Q. SOME PARTIES HAVE ADVOCATED THE USE OF**
10 **REPLACEMENT-ONLY DISCOUNTS FOR SWITCHING,**
11 **CLAIMING THAT TELRIC PRINCIPALS CALL FOR**
12 **REPLACEMENT-ONLY DISCOUNTS. WHY DOES BELL SOUTH**
13 **USE A COMBINATION OF REPLACEMENT AND GROWTH**
14 **DISCOUNTS IN THE SCIS/MO STUDIES?**

15

16 A. Parties calling for replacement-only discounts are advocating a scenario that
17 is purely hypothetical and would in reality result in higher costs. The FCC,
18 in formulating the TELRIC rules, clearly intended for ILECs to use the costs
19 that they may reasonably expect to incur in providing network elements to
20 new entrants on a going-forward basis.⁴ The only way that BellSouth could
21 effect a replacement-only discount for all the lines on a switch is to purchase
22 enough lines at replacement time to support the demand over the life of the
23 switch. This clearly would violate efficient provisioning practices by creating

24

25 ⁴ In the Matter of Implementation of the Local Competition Provisions
in the Telecommunications Act of 1996, CC Docket No. 96-98, First
Report and Order, August 8, 1996, para. 685.

1 large amounts of excess unused capacity in the switch. Using a replacement-
2 only discount in effect creates a short-run cost study, not a long-run cost
3 study, as TELRIC requires.

4
5 The irony of the replacement-only discount approach is that it can actually
6 create a higher material price in the long run than the correct blended
7 approach. Exhibit JHP-1 clearly illustrates the effect that the replacement-
8 only assumption has upon long-run costs. In this example, the replacement-
9 only scenario results in a material price that is \$468,899 *higher* over the life
10 of the switch.

11
12 Use of the replacement-only discount will produce a higher cost because you
13 would also have to adjust utilization factors downward to account for the
14 placement of equipment years before it is actually used to produce revenue.
15 Proponents of the replacement-only assumption conveniently ignore the
16 utilization issue, and apparently would change only the discount input.
17 Putting in a replacement-only discount without adjusting utilization would
18 produce a short run scenario and an unrealistically low cost study result that
19 ignores reality.

20

21 **Q. WHAT INPUTS ARE IMPORTANT TO THE DEVELOPMENT OF**
22 **EXCHANGE PORT COSTS?**

23

24 A. Exchange port costs are driven primarily by the results of the SCIS/MO
25 study, which provides a material price by switch vendor for each type of

1 exchange port (2-Wire, 4-Wire, ISDN, etc.) Another important input to
2 exchange ports is the switch technology mix, that is the proportion of Lucent
3 switches to NORTEL switches for each state.

4

5 In general, the input values used for exchange ports have declined because of
6 more efficient switch architecture, increased BellSouth discounts, and in the
7 case of digital line ports, more extensive use of IDLC equipment.

8

9 **Q. WHAT INPUTS ARE IMPORTANT TO THE DEVELOPMENT OF**
10 **FEATURE MATERIAL PRICES?**

11

12 A. The key inputs to feature material prices are switch realtime estimates,
13 customer usage characteristics, and special hardware prices. Switch realtime
14 is measured in terms of milliseconds - how many milliseconds of realtime are
15 consumed each time a feature is used. Customer usage data measures how
16 many times in the Busy Hour an average customer uses a feature.

17

18 **Q. HOW DO YOU KNOW HOW MUCH PROCESSOR REALTIME**
19 **EACH FEATURE CONSUMES ON THE SWITCH?**

20

21 A. For the SST it is assumed that each use of a feature generates approximately
22 the same processor realtime as a call setup. This assumption is supported by
23 examination of the call timings embedded within SCIS/IN.

24

25 Our conclusions on processor realtime use for features were also supported

1 by examination of inputs and results provided by a switch vendor's processor
2 engineering tool. This particular tool accepts inputs that describe in great
3 detail the set of features to be implemented on a particular switch. The
4 possible feature set may include residence and business features, Centrex,
5 AMA recording, and Local Number Portability, as well as others. The total
6 feature processor load on the switch is demand-driven. For example, the
7 number of feature-rich Centrex lines on the switch and the average number of
8 feature calls per Centrex line have a significant and easily-observable effect
9 upon the average processor time required to set up a call.

10

11 **Q. HOW DID BELLSOUTH DEVELOP THE CUSTOMER USAGE**
12 **INPUTS USED FOR THE FEATURE STUDIES?**

13

14 A. In order to obtain average usage data, 56 features (over 20% of the unique
15 switch features) were reviewed. These features were analyzed as to which
16 switch resources were required to process the feature call; processor, line,
17 hardware, and/or SS7. Inputs into BellSouth's retail studies (busy hour calls)
18 were then input into a matrix. This allowed the development of an average
19 call demand by type of switch resource required. For example, the average
20 number of busy hour calls for the features that use the switch processor was
21 1.1. The next step was to consider that the typical end user customer utilizes
22 4 vertical features from an extensive list. Multiplying the average Busy Hour
23 demand per feature by the 4 features per average user yielded the average
24 busy hour features calls per line input to the SST.

25

1 **Q. HOW DID YOU DEVELOP THE INPUTS FOR SPECIAL FEATURE**
2 **HARDWARE?**

3
4 A. The hardware price study was performed specifically to provide input values
5 to the BellSouth Simplified Switching Tool (SST). For the purposes of the
6 current UNE studies, the SST requires a pair of single values, one for each
7 switch vendor, that represent the average busy hour investment in special
8 hardware, per CCS of use, for a typical mix of hardware found in the central
9 office. The objective was to produce a single cost number, for pricing
10 purposes, which is representative of all major types of switch hardware usage.

11
12 The hardware cost worksheet uses a unit cost process consistent with
13 BellSouth's other material price calculators. These calculators take vendor
14 prices for various pieces of equipment and express the prices on a per circuit
15 level. In essence, the process involves (1) determining the appropriate types
16 and quantities of equipment required, (2) utilizing vendor-furnished price
17 lists, (3) applying a discount rate (if applicable), (4) dividing by the capacity
18 of the equipment, and (5) applying a utilization factor. In the case of feature
19 hardware, the relevant unit of capacity is per CCS of usage.

20
21 Hardware prices and capacities for the equipment were obtained directly from
22 the switch vendors where possible. In some cases, information was obtained
23 from the Telcordia SCIS/IN model.

24
25 **Q. WHAT INPUTS ARE IMPORTANT TO THE DEVELOPMENT OF**

1 **UNBUNDLED SWITCHING AND COMMON TRANSPORT**
2 **MATERIAL PRICES?**

3

4 A. The most important inputs to SST-U (BellSouth's Usage model) include the
5 distribution of calls (intra-office/interoffice split), busy hour-full day ratio,
6 average minutes per call, and average airline miles per call. The outputs from
7 SCIS/MO and the Interoffice Fundamental Study also are important
8 contributors to the development of the usage costs. This data should be
9 BellSouth-specific.

10

11 The distribution of calls is important because interoffice calls, which involve
12 two or more switches, have significantly higher costs than intraoffice calls.
13 The BellSouth distribution of calls is obtained from an internal company
14 study that measures calling patterns during the Busy Season of each year.

15

16 The Busy Hour to Full Day Ratio is important because it measures the
17 portion of all traffic during the day that occurs in the office Busy Hour. Since
18 Busy Hour traffic is the only relevant traffic for determining switch material
19 prices, this input has a direct bearing on the material price per minute
20 produced by the model. For example, increasing the Busy Hour ratio from
21 8% to 10% would increase the usage cost per minute by about the same
22 proportion, or 25%. The current Busy Hour ratio was obtained from
23 BellSouth Subscriber Line Usage (SLUs) studies performed in 1999.

24

25 The average minutes per call affects the total cost per minute because it is

1 used to prorate the call setup cost per call across minutes. The current
2 minutes per call number was obtained from BellSouth Subscriber Line Usage
3 (SLUs) studies performed in 1999.

4

5 The average airline miles per call is used to prorate costs for SS7 call setup
6 functions, which use the interoffice network, to the Common Transport
7 Facilities rate element. This input is based on data obtained from BellSouth's
8 Carrier Access Billing System (CABS).

9

10 For detailed descriptions of these and all of the other inputs to the BellSouth
11 Unbundled Local Switching Studies, please see the SST Input Data
12 Dictionary for the Usage and Port Models, which was filed with the
13 BellSouth Cost studies on April 17, 2000.

14

15 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

16

17 A. BellSouth's switching cost studies for UNEs utilize the appropriate TELRIC
18 methodology. They use the right combination of network design
19 assumptions, material price models, and inputs to develop the costs for an
20 efficient, forward-looking network. As with all of BellSouth's cost studies,
21 these studies use BellSouth-specific inputs to estimate BellSouth's cost of
22 providing unbundled network elements. The studies reflect a general overall
23 decline in BellSouth's switching prices over the past several years.

24

25 With this cost study BellSouth introduces a new model, the SST, which

1 produces forward-looking material prices for Exchange Ports, Features, and
2 Switched Usage and Common Transport. The SST was designed to be
3 streamlined, understandable, open, and non-proprietary, while still producing
4 accurate, forward-looking cost studies.

5

6 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

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8 A. Yes.

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1 **Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

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3 A. My name is Joseph H. Page. My business address is 675 W. Peachtree St.,
4 N.E., Atlanta, Georgia. I am a Manager in the Core Marketing Department
5 of BellSouth Telecommunications, Inc. (hereinafter referred to as
6 "BellSouth" or "the Company"). My current area of responsibility relates to
7 pricing strategy.

8

9

10 **Q. ARE YOU THE SAME JOSEPH H. PAGE WHO FILED DIRECT**
11 **TESTIMONY IN THIS PROCEEDING?**

12

13 A. Yes. I filed direct testimony in this proceeding on behalf of BellSouth on
14 May 1, 2000.

15

16

17 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

18

19 A. The purpose of my testimony is to respond to several issues raised by AT&T /
20 MCI witness Ms. Pitts and Z-Tel witness Dr. Ford concerning the
21 methodology and inputs used in the switching cost study. My testimony is
22 organized as follows:

23

- 24 - Switching Cost Information System / Model Office (SCIS/MO) errors in
25 Integrated Services Digital Network (ISDN) results.
26 - Assignment of switch processor Getting Started costs to features.

- 1 - Feature Usage Inputs.
- 2 - Feature Hardware Study.
- 3 - Switch discounts.
- 4 - Centrex Intercom usage costs.
- 5 - AT&T / MCI's proposed switching cost methodology.

6

7 **SCIS/MO STUDY REVISIONS**

8

9 **Q. DOES THE SCIS/MO 2.6.1B RELEASE USED FOR THE AUGUST 16,**
10 **2000, FILING CORRECT THE PROCESSING ERRORS**
11 **ASSOCIATED WITH ISDN THAT ARE ADDRESSED ON PAGES 7**
12 **AND 8 OF AT&T / MCI WITNESS MS. PITTS' TESTIMONY?**

13

14 A. Yes. The SCIS/MO now correctly computes investments for ISDN on DMS
15 RSC-S remotes. Although BellSouth did not encounter the error message
16 problems in SCIS/MO that Ms. Pitts describes, BellSouth did detect the
17 problem with the Minimum Investment per PRI. The Simplified Switching
18 Tool[®] (SST) model included in BellSouth's April 17, 2000 cost study filing
19 contained a formula adjustment that compensated for the Minimum
20 Investment per BRI problem. Since Telcordia has now corrected the
21 SCIS/MO model, the adjustment has been removed from the SST model
22 included in the August 16, 2000 cost filing. The corrected investments are
23 reflected in BellSouth's updated cost study. As a result, the restated ISDN
24 port investments in Mr. King's testimony are not relevant and should be

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1 disregarded.

2

3 **SWITCH PROCESSOR COSTS FOR FEATURES**

4

5 **Q. WHAT IS AT&T / MCI WITNESS MS. PITTS' POSITION**
6 **REGARDING THE ASSIGNMENT OF PROCESSOR COSTS TO**
7 **FEATURES?**

8

9 A. On page 22, line 21 of her rebuttal testimony Ms. Pitts says "BellSouth's
10 presumption that features, because they use the processor, must pay for the
11 processor is misguided." On page 23, line 3 she claims that "feature usage
12 does not impact the level of getting started investment."

13

14 Ms. Pitts is wrong about this in at least two respects, both theoretical and
15 practical. She is incorrect in saying that "the processor, along with the rest
16 of the getting started cost of the switch is a fixed cost" (p. 23, line 2). One
17 fundamental principle of long-run costing is that the replacement of a large
18 "lumpy" investment, such as a switch processor, is advanced in time by
19 increased usage.

20

21 Aside from the theoretical flaws in Ms. Pitts' arguments, she ignores plentiful
22 evidence from the switch vendors themselves that features do affect the
23 useful capacity of a switch, and therefore will help determine the number and
24 type of switches that must be placed. Much of this documentation was
25 provided to AT&T by BellSouth in response to AT&T's First Production of
26 Documents, Request No. 14. For example, Exhibit JHP-01 to my testimony

1 has pages from Lucent Practice 235-900-133, Issue 3.00B, provided in
2 response to AT&T Request No. 14e, which show that the 5ESS switch has
3 capacity constraints in terms of the number of calls the switch can process in
4 the busy hour.
5
6

7 **Q. AT&T / MCI WITNESS MS. PITTS, ON PAGE 16 OF HER**
8 **TESTIMONY, CLAIMS "BELLSOUTH'S METHODOLOGY**
9 **ASSUMES THAT BOTH THE LUCENT AND NORTEL SWITCHES**
10 **PROCESS ALL FEATURE CALLS IN THE CENTRAL**
11 **PROCESSOR." DO YOU AGREE?**

12
13 A. No. In fact, the SST-U model algorithms recognize that the Lucent and
14 Nortel switches have different architectures and process calls differently.
15 Ms. Pitts has apparently misunderstood the SST-U model algorithms. The
16 SST uses a variable called "Processor Realtime (Milliseconds) per Call" that
17 represents the total realtime milliseconds available for call processing divided
18 by the vendor's stated call processing capacity for the switch. This variable is
19 reflected in the SST-U model, worksheet UNE Main, Column F, where it is
20 labeled *an average number of milliseconds per call*. Some calls may make
21 more use of the central processor, and some may make none, but this in no
22 way implies that every feature call must use the central processor.
23
24

25 **Q. PLEASE EXPLAIN THE DIFFERENCES BETWEEN THE LUCENT**
26 **AND NORTEL SWITCHES IN TERMS OF PROCESSING FOR CALL**
27 **SETUP AND FEATURES.**

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A. The Lucent 5ESS[®] switch uses a distributive processing architecture, in which the Switch Modules (SMs) (the same modules that house line and trunk terminations) perform the bulk of call processing and vertical feature processing. The 5ESS[®] switch has two other processors, the Communications Module Processor (CMP) and the Administrative Module (AM), which perform call processing functions such as overall call routing, resource allocation, and billing¹.

The Nortel DMS-100[®] switch, by contrast, performs call and feature processing within a central switch processor.

Q. PLEASE EXPLAIN WHY BELLSOUTH AND SCIS/MO ARE JUSTIFIED IN ATTRIBUTING THE COSTS OF THE 5ESS[®] CMP AND AM TO FEATURE AND CALL PROCESSING.

A. The SCIS Model Office equations group the CMP and AM components together into the Getting Started cost category. As mentioned above, these components are responsible for maintaining the overall call processing flow and administrative functions of the switch. This is clear from Lucent's own documentation.

***** Begin Proprietary**

¹ Lucent Technologies Practice 235-900-113, Issue 3.00, Section 2.1.1.

² Lucent Technologies Practice 235-900-113, Product Specification 5E12 and Later Software Releases, Section 2.1.1.

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***** End Proprietary *****

**Q. WHAT OTHER ERRORS DOES MS. PITTS MAKE REGARDING
THE ASSIGNMENT OF PROCESSOR COST TO CALL
PROCESSING AND FEATURES?**

A. Ms. Pitts, on Page 17, footnote 18 of her rebuttal testimony, claims that "processors in digital switches do not limit the capacity of the switch, instead, switches are port limited..." There is abundant evidence that switches generally have three capacity limitations: ports, processor capacity, and minutes of use (MOU) capacity. The port is one of several limitations that may exist on a switch, but it is clearly not the only capacity limitation as Ms. Pitts claims. Lucent Practice 235-900-133, Issue 3.00B, clearly states that "The 5ESS[®] switch capacity is stated as rated call capacity" and that "the rated capacity of the 5ESS switch is ***** Begin Proprietary ***** ***** End Proprietary ***** equivalent plain old telephone service (POTS) calls per hour." The capacity constraint on these components is busy hour

1 calls, not lines as Ms. Pitts claims. Furthermore the vendor has separate
2 capacity statements for rural and metro offices, based on the fact that metro
3 offices have higher penetrations of vertical feature use (driven by business
4 customers). Note that the 5ESS, in the metro environment, has a rated
5 capacity of only *** **Begin Proprietary** *** **End Proprietary**
6 *** busy hour calls as a direct effect of feature use³. From the standpoint of
7 cost causality, it stands to reason that components whose purpose is to
8 manage call processing, and whose capacity constraints are stated by the
9 vendor in terms of call processing, should be assigned to calls, not line ports
10 as Ms. Pitts suggests.

11
12
13 **Q. WHAT OTHER EVIDENCE DO YOU HAVE THAT CALL AND**
14 **VERTICAL FEATURE PROCESSING CAUSE ADDITIONAL COSTS**
15 **IN DIGITAL SWITCHES?**

16
17 A. The FCC has considered this issue in the development of a forward-looking
18 cost model for use in the universal service high-cost support mechanism. In a
19 1997 Public Notice the FCC clearly specified that "the models' algorithms for
20 determining switch size should include switch capacity constraints based on
21 (1) number of lines; (2) number of busy-hour call attempts; and (3) busy-hour
22 traffic (measured in hundreds of call seconds)." ⁴ The FCC also notes that
23 the proponents of the Hatfield cost proxy model, AT&T and MCI, agree that

³ Lucent Technologies Practice 235-900-113, Section 2.1.1.

⁴ Guidance to Proponents of Cost Models in Universal Service Proceeding: Switching, Interoffice Trunking, Signaling, and Local Tandem Investment, Public Notice, CC Docket Nos. 96-45, 97-160, DA 97-1912, Sept. 3, 1997, page 3.

1 switches have these three capacity limitations.

2

3 The Hatfield Model evolved into the HAI model, of which AT&T and MCI
4 are also sponsors. The HAI model contains capacity constraints for call
5 processing, ports, and minutes of use. The HAI model, Release 5.1, also
6 includes a "Feature Loading Multiplier" which reflects "the amount by which
7 the load on a processor exceeds the load associated with ordinary telephone
8 calls, due to the presence of vertical features, Centrex, etc."⁵ The HAI Model
9 Version 5.1 includes an input of 600,000 Busy Hour Call Attempts (BHCA)
10 as a capacity constraint for switches over 40,000 lines (HAI Model 5.1 Inputs
11 Portfolio, page 4). My exhibit JHP-02 provides the HAI Model Release 5.1
12 BHCA constraints. The HAI Model also recognizes that call processing and
13 features can and do cause additional switch costs:

14

15 If the model determines that the load on a processor, calculated as
16 the number of busy hour call attempts times the processor feature
17 load multiplier, exceeds the switch real time limit multiplied by
18 the switch maximum processor occupancy, it will add a switch to
19 the wire center⁶.

20

21 Finally, the FCC incorporated the AT&T / MCI recommended switch
22 capacity constraint inputs into its November, 1999 Report and Order on input
23 values for the HCPM/HAI hybrid cost proxy model chosen for the universal

⁵ HAI Model Release 5.1 Inputs Portfolio, page 88. Filed by AT&T in Georgia Docket No. 10692-U, *Generic Proceeding to Establish Long-Term Pricing for Policies for Unbundled Network Elements*, June 11, 1999. AT&T filed this HAI methodology in support of its supposed rates for UNE combinations in that docket.

⁶ HAI Model Release 5.1 Inputs Portfolio, page 84.

1 service support mechanism⁷.

2

3 Based upon the plentiful evidence that switches are call-processing limited,
4 and features present an incremental operating load (and cost) to the switch
5 processors, Ms. Pitts' testimony to the contrary is uninformed and should be
6 disregarded.

7

8

9 **Q. HAS THIS COMMISSION ADDRESSED THE TREATMENT OF**
10 **FEATURE COSTS FOR UNES?**

11

12 A. Yes. In Order No. PSC-98-0604-FOF-TP, Dockets Nos. 960757-TP,
13 960833-TP, and 960846-TP, pages 154 – 159 the Commission considered the
14 same arguments from Ms. Pitts (then Ms. Petzinger) surrounding the
15 assignment of Getting Started costs to call processing and features. The
16 Commission's conclusion was that processor usage is an appropriate
17 component of the costs of vertical features:

18

19 The local usage rates that we set in Order No. PSC-96-1579-FOF-TP
20 included processor usage for vertical features. We believe that this is
21 consistent with the FCC's definition that all features, functions, and
22 capabilities of the switch are included with the switching element.

23

24

⁷ In the Matter of Federal-State Joint Board on Universal Service, Forward-Looking Mechanism for High-Cost Support for Non-Rural LECS, CC Dockets Nos. 96-45 and 97-160, Tenth Report and Order, November 2, 1999, Appendix A, Page A-11.

1 **FEATURE USAGE INPUTS**

2

3 **Q. MS. PITTS TAKES ISSUE WITH THE BUSY HOUR CALL USAGE**

4 **INPUTS TO THE SST-U STUDY. PLEASE COMMENT ON HER**

5 **CONCLUSIONS.**

6

7 A. Ms. Pitts, in her admittedly "casual review" of the inputs (p. 18) apparently

8 misunderstands the methodology BellSouth used in developing busy hour call

9 usage. As explained in my May 1, 2000, direct testimony, BellSouth

10 compiled the busy hour calling rates for 56 features. The calling rates ranged

11 from *****Begin Proprietary*** ***End Proprietary***** busy hour

12 calls to *****Begin Proprietary*** ***End Proprietary***** busy hour

13 calls⁸. The simple sum of the calling rates is *****Begin Proprietary*****

14 *****End Proprietary***** calls. Dividing the *****Begin Proprietary*****

15 *****End Proprietary***** calls by features produced an average of

16 *****Begin Proprietary*** ***End Proprietary***** busy hour calls

17 per feature. BellSouth's research shows that the typical subscriber uses about

18 *****Begin Proprietary*** ***End Proprietary***** features on a regular

19 basis. Multiplying the *****Begin Proprietary*** ***End**

20 **Proprietary***** calls per feature by the *****Begin Proprietary*****

21 *****End Proprietary***** features produces *****Begin Proprietary*****

22 *****End Proprietary***** average feature calls in the busy hour. BellSouth

23 believes this number is reasonable because it reflects both originating

24 features, such as 3-Way Calling and Speed Dialing, as well as terminating

25 features, such as Call Waiting or Hunting, as well as CLASS features such as

⁸ A table listing the 56 features and the busy hour call rate for each was provided by BellSouth in response to AT&T's First Request for Production of Documents, Item No. 141, May 2, 2000.

1 Caller ID. Given the variety of features in common use it is not hard to see
2 how a single phone call can invoke two or more features.

3

4 With the above framework in mind, it is clear that Ms. Pitts' concerns about
5 the correctness of BellSouth's call usage inputs are misguided.

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For example, the feature 3-way calling has an input of *****Begin Proprietary***** *****End Proprietary***** calls in the busy hour. When comparing this to the overall *****Begin Proprietary***** *****End Proprietary***** calls per line average in the busy hour she concludes that this makes for an “inordinately high” number of three-way calls. What Ms. Pitts apparently fails to understand is that the *****Begin Proprietary***** *****End Proprietary***** calls applies only for those subscribers who use 3-way calling, which is a relatively small number. The SST feature cost result does not, therefore, reflect *****Begin Proprietary***** 0.5 *****End Proprietary***** 3-way calls in the busy hour, as Ms. Pitts’ testimony would lead us to believe.

To clarify, the input set assumes that *****Begin Proprietary***** 56 *****End Proprietary***** features will be generally used. The average number of features per line using the processor is *****Begin Proprietary***** *****End Proprietary*****. The portion of the total *****Begin Proprietary***** *****End Proprietary***** calls per line attributable to 3-way calling is, therefore, *****Begin Proprietary***** *****End Proprietary***** calls in the busy hour. This is the number of 3-way calls reflected in the Features UNE cost, not *****Begin Proprietary***** *****End Proprietary***** calls. Ms. Pitts’ analysis of the calling frequency of

1 Night Service is equally misguided.

2

3 **Q. AT&T WITNESS MS. PITTS CLAIMS THAT "BELLSOUTH'S**
4 **EXAMPLE FOR CHARGING A LINE PATH TO A FEATURE IS**
5 **INCORRECT." DOES THIS MEAN THE SST FEATURE COST**
6 **FORMULAS ARE INCORRECT?**

7

8 A. No, the SST formulas and inputs are correct. Ms. Pitts quotes a statement
9 from the SST Methodology document that was intended to describe in
10 general how a feature such as 3-Way Calling may use additional line path
11 resources in the switch. Ms. Pitts then provides a lengthy discussion of how
12 the local switching MOU charges will, in the case of 3-Way Calling, recover
13 the cost of that additional line path. Ms. Pitts' discussion may lead the reader
14 to believe that the SST is double-counting the line path costs of 3-Way
15 Calling, but this is not the case. The feature usage data set developed for the
16 SST does not include any additional line path usage for 3-Way Calling. As a
17 result the SST feature cost results are correct, and do not include any
18 additional line path costs for 3-Way Calling.

19

20

21 **Q. HOW DO YOU RESPOND TO OTHER CRITICISMS OF MS. PITTS**
22 **CONCERNING BELLSOUTH'S DEVELOPMENT OF FEATURE**
23 **COSTS?**

24

25 A. Ms. Pitts makes numerous criticisms of BellSouth's feature cost inputs, and
26 expounds many opinions regarding the correct values and application of

1 those inputs, despite admitting on page 22 that she does "not have accurate
2 call usage data." In other words, Ms. Pitts confirms that she has no basis for
3 judging whether the inputs are reasonable or not, which is reason alone for
4 disregarding her testimony about feature usage.

5
6 In regard to Ms. Pitts' criticism that BellSouth should use weighted average
7 take rates for the features instead of mathematical averages, BellSouth
8 agrees, in principle. However, the issue is that BellSouth's UNE features will
9 be used by the ALECs' customers, not BellSouth's customers. BellSouth
10 obviously has no way of knowing which features the ALECs will offer their
11 customers, or the expected take rate for each feature. In the absence of that
12 information, the most reasonable approach is to use the arithmetic average
13 until such time as the ALECs can provide the necessary market forecasts.

14
15 BellSouth's goal with feature costing, as with all cost studies, is to produce
16 the most accurate study possible with the data available. If AT&T, MCI or
17 any other intervenors have suggested input values for feature usage, that are
18 based valid estimation techniques and market forecasts, then BellSouth
19 would consider their use. AT&T and MCI, however, do not bring any
20 constructive alternatives for feature usage data to the table.

21
22 **FEATURE HARDWARE STUDY**

23
24 **Q. AT&T / MCI WITNESS MS. PITTS CLAIMS, ON PAGE 11, THAT**
25 **BELLSOUTH'S FEATURE HARDWARE STUDY HAS**
26 **"INVESTMENT, CAPACITY, AND UTILIZATION ERRORS."**

1 **Q. PLEASE COMMENT ON THE CLAIMED INVESTMENT ERRORS.**

2

3 A. Ms. Pitts notes on page 13, lines 2 – 4 that BellSouth’s Class Modem
 4 Resource Card investment should have discounted instead of being included
 5 at list price. Ms. Pitts is correct that a discount should have been applied.⁹
 6 On page 13, lines 11 – 14 Ms. Pitts claims that “it appears that at least one
 7 technology’s investments included ‘loadings’ and costs for ‘associated
 8 resources’. It is probable that some of these associated resources are double
 9 counted here and again in the telco installation factor, and/or other factors.”
 10 The conjecture that these “associated resources” are double counted is
 11 without basis and is not true. Based on information provided by Lucent,
 12 these “associated resources” are switch cabinets, which are not included in
 13 any other BellSouth factors.

14

15

16 **Q. PLEASE COMMENT ON THE CLAIMED CAPACITY ERRORS.**

17

18 A. Ms. Pitts claims on page 14, lines 7 – 11 that BellSouth’s use of two Call
 19 Waiting tone circuits is incorrect, but an examination of the SCIS/TN
 20 formulas shows that the two circuits is correct.

21

22 Ms. Pitts claims on page 14, lines 12 - 16 that BellSouth's estimate for the
 23 number of lines sharing a CLASS modem card is too low. Upon further
 24 evaluation, the number of lines sharing a CLASS modem card from should be

⁹ The correct blended discount should be applied to all hardware
 investments taken from SOIS not Ms. Pitts’ hypothetical replacement
 only discount.

1 changed from 76.8 to 435.75. The revised number of lines reflects
 2 utilization, so the utilization input for the CLASS modem should be 100%

3
 4 The capacities for the SAS announcement circuit should be modified based on
 5 new information from the switch vendor as reflected in my exhibit JHP-03.

6
 7 The following summarizes the proposed CCS capacity modifications:

8 ***** Begin Proprietary *****

9 ***** End Proprietary *****

10
 11 **Q. PLEASE COMMENT ON THE CLAIMED UTILIZATION ERRORS.**

12
 13 A. Ms. Pitts notes, on p. 15 lines 5 - 6, that the values for CCS capacity taken
 14 from the SCIS hardware tables already reflect utilization, and that it would
 15 not be appropriate to apply a utilization factor in cases where these values are
 16 used. Upon further examination of the hardware study inputs, BellSouth
 17 agrees that the utilization inputs should be changed from 85% to 100% on the
 18 following items of equipment:

19

6-port Conference Circuit	Nortel	100%
3-port Conference Circuit	Nortel	100%
Call Waiting Tone	Nortel	100%
6-port Conference Circuit	Lucent	100%
3-port Conference Circuit	Lucent	100%
Class Modem Card	Nortel	100%

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Q. PLEASE COMMENT ON MS. PITTS' "RESTATED HARDWARE STUDY USING NEW SWITCH DISCOUNTS" ATTACHMENT CEP-4 TO HER REBUTTAL TESTIMONY.

A. While Ms. Pitts' study does include a number of corrected inputs, it cannot be used for the Feature UNE study because it has several flaws. The first flaw is Ms. Pitts' use of a hypothetical replacement discount instead of the correct blended discount. The second flaw is the use of the DSU2/RAF/BRCS service circuit instead of the more forward-looking SAS service circuit used in BellSouth's study. Third, the study includes only one Call Waiting tone circuit instead of the required two. For these reasons, AT&T / MCI's Hardware study as presented here and in Mr. King's testimony should be rejected.

SWITCH DISCOUNTS

Q. AT&T / MCI WITNESS MS. PITTS CLAIMS THAT YOUR EXAMPLE OF REPLACEMENT COSTS EXCEEDING MELDED REPLACEMENT AND GROWTH COSTS IS NOT REALISTIC. DO YOU AGREE?

A. No. To begin, let me emphasize that Ms. Pitts never disputes the core principle at issue, which is that switches are purchased with the number of

1 lines needed to serve two or three years' worth of demand. The switch is then
2 grown as necessary, at regular intervals, to accommodate expected increases
3 in demand. Furthermore, the growth equipment is purchased at a lower
4 discount rate than the initial switch purchase. My Exhibit JHP-1 attached to
5 my direct testimony used a 10% growth rate to illustrate the principle that a
6 higher initial discount coupled with a lower replacement discount is
7 economically sound. As my exhibit JHP-04 to this testimony illustrates,
8 reducing the growth rate to 5% does not alter this principle. In that example,
9 the replacement-only discount yields a capital expenditure \$164,633 higher
10 than the blended discount which is advocated by BellSouth.

11
12 Ms. Pitts inexplicably takes issue with the use of a 10-year switch life in the
13 example, despite the fact that BellSouth's economic life for switching is 10
14 years, as provided by Mr. Cunningham's testimony. In her apparent
15 confusion, she states that "it is doubtful that the switch contracts currently in
16 place would be effective through the year 2010, making the prices pure
17 speculation." While that may be true, it is not relevant to the principle being
18 illustrated. Any changes in the future switch contracts will affect the
19 replacement discounts as certainly as the blended discounts.

20
21
22 **Q. Z-TEL WITNESS FORD BELIEVES THE COMPUTATION OF**
23 **BELLSOUTH'S REPLACEMENT DISCOUNT IS "FLAWED." DO**
24 **YOU AGREE?**

25
26 A. Absolutely not. Dr. Ford, in his July, 31, 2000 direct testimony, says that

1 BellSouth's approach is flawed because BellSouth used a contractual
2 discount rate for growth discounts, while using a computed replacement
3 discount. Dr. Ford then concludes (without any basis in fact) that
4 BellSouth's replacement discount is potentially understated.

5

6

7 **Q. WHY DID BELL SOUTH NOT USE A CONTRACTUAL**
8 **REPLACEMENT DISCOUNT, AS DR. FORD RECOMMENDS,**
9 **RATHER THAN THE COMPUTED DISCOUNT?**

10

11 A. Dr. Ford, by his own admission, has not "personally reviewed any switch
12 contracts between BS-FL and its switch vendors (p. 8, line 10)." If he had
13 reviewed the contracts¹⁰, he would have learned that switch replacement jobs
14 are priced under a structure completely different from that used for growth
15 jobs. There is no stated discount for replacement switches in BellSouth's
16 contracts. *****Begin Proprietary*****

17

18

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22

*****End Proprietary*****

23

24 Given that there are no stated discount percentages for replacement switches,

¹⁰ BellSouth's switch vendor contracts and the studies used to develop the replacement discounts were made available for inspection at BellSouth's premises in response to discovery requests by various parties in this proceeding.

1 BellSouth computed the replacement discount based on vendor billing for
2 actual switch orders. As described in detail in my direct testimony, this
3 derived replacement discount, when input into SCIS/MO, produces a result
4 that accurately reflects vendor billing.

5

6

7

**Q. DR. FORD CLAIMS THAT BELLSOUTH'S REPLACEMENT
8 DISCOUNT COMPUTATION POTENTIALLY UNDERSTATES THE
9 DISCOUNT. IS THIS TRUE?**

10

11

A. No. Dr. Ford is somehow under the impression that the SCIS/MO model
12 reflects switch prices from a different (later) time frame than the switch
13 orders used to compute the discount. This, according to Dr. Ford, could
14 result in "discount deflation" because switch prices decline over time. This
15 hypothetical problem does not exist in the BellSouth study because the switch
16 orders examined covered the years 1997, 1998, and 1999. The SCIS 2.6.1
17 database, used for the study, uses list prices effective 12/1/1998. The time
18 frames are consistent, resulting in a consistent discount computation.

19

20

CENTREX INTERCOM USAGE COSTS

21

22

**Q. HOW DO YOU RESPOND TO MS. PITTS' POSITION, ON PAGE 24
23 OF HER REBUTTAL TESTIMONY, CONCERNING THE CENTREX
24 INTERCOM USAGE RATE ELEMENT?**

25

26

A. Ms. Pitts claims that the Centrex intercom usage should not be flat-rated

1 because AT&T / MCI understood that ALEC UNE-P lines generate usage
2 charges for the intercom calls. At the time of BellSouth's April 17, 2000 cost
3 study filing, it appeared that BellSouth would not have the ability to generate
4 UNE switch charges for these calls. More recent research indicates that
5 BellSouth will be able to bill for these calls. This means that the Centrex
6 Intercom Usage feature should be set to zero, as Ms. Pitts recommends.

7

8 **AT&T / MCI'S PROPOSED METHODOLOGY**

9

10 **Q. WHAT IS YOUR ASSESSMENT OF AT&T / MCI'S "SIMPLIFIED** 11 **METHODOLOGY?"**

12

13 A. Ms. Pitts' "methodology" is too vague and sketchy to support a cost study.
14 It is based upon a contradictory design philosophy from the beginning. Note
15 that when beginning her discussion of this "methodology," Ms. Pitts
16 complains that the SST has too many "generalizations." Ms. Pitts'
17 methodology, however, is many times more generalized than the SST.
18 Instead of determining, for example, the switch usage due to the various
19 features and services available on a switch, Ms. Pitts' methodology would
20 assume that each and every subscriber uses the same set of services! There is
21 no demonstration that this methodology is grounded in any underlying
22 economic principles or actual switch architecture.

23

24

25 **Q. WHAT SPECIFICALLY ARE THE PROBLEMS WITH MS. PITTS'**

1 **METHODOLOGY?**

2

3 A. The methodology is too simplistic to produce meaningful UNE investments:

4

5 - It ignores long established rate structures for UNEs, toll and access because
6 it does not distinguish between the very real costs of setting up a call, as
7 opposed to per-minute costs.

8

9 - Feature costs are lumped in with other traffic-sensitive costs in the switch,
10 forcing all subscribers to pay for features whether they use them or not. As a
11 matter of fact, this methodology would result in ALECs paying for features
12 as part of the Call Transport and Termination rates paid to BellSouth.

13

14 - By assigning Getting Started costs to line ports, this methodology violates
15 cost causation principles. Ms. Pitts admits that “the processor must be
16 purchased for basic call processing” (p. 22, line 23). It would be clearly
17 illogical to allocate these traffic-sensitive call processing costs to the non-
18 traffic sensitive line port, which does not perform call processing.

19

20 - The methodology would produce unusable results because it does not
21 account for remote switches. The Getting Started Cost (processor) of the
22 host switch supports subscribers on the subtending remotes as well. This
23 methodology, by simply allocating each switch’s Getting Started cost to its
24 ports, would overstate the cost of each host switch and drastically understate
25 the cost of each remote.

26

1 Ms. Pitts' recommendations are thoroughly contradictory and self-serving,
2 and on that basis alone should be disregarded. For example, she complains
3 that BellSouth's method for averaging feature usage inputs (used to assign
4 "getting started" call processing costs) is "simplistic" (p. 27) and that
5 BellSouth's simplifying assumptions are "incorrect." However, Ms. Pitts'
6 own proposal for assigning the "getting started" costs of processor capacity is
7 to simply divide those costs by the number of lines on the switch and assign
8 them all ports (p. 28). Talk about simplistic! Ms. Pitts' proposal would
9 completely ignore cost causation and crudely assign the same call processing
10 cost to each subscriber, regardless of the number of calls that subscriber
11 makes.

12

13 This proposed methodology is nothing more than a transparent attempt by
14 AT&T and MCI to lower the results of Switched Access and Local
15 Interconnection cost studies. The getting started call processing costs at issue
16 are an important component of call setup costs for access and local service.
17 Assigning that cost to ports would make the results of the Switched Access
18 and Local Interconnection cost studies significantly lower and potentially
19 reduce the rates AT&T and MCI would pay for those services.

20

21

22 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

23

24 A. Yes, it does.

25

1 MS. WHITE: And then, BellSouth would call
2 Mr. Ron Pate to the stand.

3 RONALD M. PATE
4 was called as a witness on behalf of BellSouth
5 Telecommunications, Inc. and, having been duly sworn,
6 testified as follows:

7 DIRECT EXAMINATION

8 BY MS. WHITE:

9 Q Mr. Pate, would you please state your name and
10 address and by whom you are employed?

11 A My name is Ronald M. Pate. I'm employed by
12 BellSouth Telecommunications at 675 West Peachtree,
13 Atlanta, Georgia.

14 Q And have you caused to be prefiled in this
15 docket rebuttal testimony consisting of 14 pages that was
16 filed on August 21st, 2000?

17 A Yes, I did.

18 Q And do you have any changes or corrections to
19 make to that testimony at this time?

20 A No, I do not.

21 Q If I were to ask you the same questions that are
22 contained in your prefiled rebuttal testimony would your
23 answers be the same?

24 A Yes, they would.

25 Q I would ask that the rebuttal testimony of

1 Mr. Pate filed on August 21st, 2000, consisting of 14
2 pages, be inserted into the record as if read.

3 CHAIRMAN DEASON: Without objection, it shall be
4 so inserted.

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1 **BELLSOUTH TELECOMMUNICATIONS, INC.**
2 **REBUTTAL TESTIMONY RONALD M. PATE**
3 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**
4 **DOCKET NO. 990649-TP**
5 **(PHASE II)**
6 **AUGUST 21, 2000**
7

8 **Q. PLEASE STATE YOUR NAME, YOUR POSITION WITH BELLSOUTH**
9 **TELECOMMUNICATIONS, INC. AND YOUR BUSINESS ADDRESS.**

10
11 **A. My name is Ronald M. Pate. I am employed by BellSouth**
12 **Telecommunications, Inc. ("BellSouth") as a Director, Interconnection**
13 **Services. In this position, I handle certain issues related to local**
14 **interconnection matters, primarily operations support systems ("OSS").**
15 **My business address is 675 West Peachtree Street, Atlanta, Georgia**
16 **30375.**

17
18 **Q. PLEASE SUMMARIZE YOUR BACKGROUND AND EXPERIENCE.**

19
20 **A. I graduated from Georgia Institute of Technology in Atlanta, Georgia, in**
21 **1973, with a Bachelor of Science Degree. In 1984, I received a Masters of**
22 **Business Administration from Georgia State University. My professional**
23 **career spans over twenty-five years of general management experience in**
24 **operations, logistics management, human resources, sales and marketing.**

1 I joined BellSouth in 1987, and have held various positions of increasing
2 responsibility.

3
4 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

5
6 A. The purpose of my testimony is to respond to allegations made by Sprint
7 witness, Steven M. McMahon, Broadslate/Cleartel/FL Digital/Network
8 Telephone ("The Coalition") witness, Mark Stacy,
9 BlueStar/Covad/Rhythms Links ("Data ALECs") witnesses, Joseph P.
10 Riolo and Terry L. Murray, and Supra witness, David A. Nilson. In the
11 process, I address the Federal Communications Commission's ("FCC")
12 *Third Report And Order And Fourth Further Notice Of Proposed*
13 *Rulemaking In CC Docket 96-98; Released November 5, 1999, ("319*
14 *Remand Order")* as its relates to BellSouth's OSS including a requirement
15 that BellSouth must provide Alternate Local Exchange Carriers ("ALECs"),
16 access to loop make-up data.

17
18 **Loop Make-up Data**

19
20 Q. WHAT IS MEANT BY THE TERM "LOOP MAKE-UP"?

21
22 A. Pursuant to the FCC's 319 Remand Order, BellSouth utilizes the term
23 "Loop Make-up" in reference to its obligations to provide ALECs access to

1 the underlying loop make-up information contained in its engineering
2 records, plant records, and other back office systems so that a requesting
3 ALEC may determine for itself whether the facilities will support its xDSL
4 service offerings.

5
6 Q. WHAT DOES THE FCC'S 319 REMAND ORDER REQUIRE OF
7 BELLSOUTH IN PROVIDING ACCESS TO LOOP MAKE-UP
8 INFORMATION?

9
10 A. In the 319 Remand Order ¶426, the FCC clarifies that " the pre-ordering
11 function includes access to loop qualification [make-up] information. Loop
12 qualification [make-up] information identifies the physical attributes of the
13 loop plant (such as loop length, the presence of analog load coils and
14 bridge taps, and the presence of Digital Loop Carrier) that enable carriers
15 to determine whether the loop is capable of supporting xDSL and other
16 advanced technologies."

17
18 The FCC further finds in ¶427 that "an incumbent [Local Exchange Carrier]
19 LEC must provide the requesting carrier with nondiscriminatory access to
20 the same detailed information about the loop that is available to the
21 incumbent, so that the requesting carrier can make an independent
22 judgment about whether the loop is capable of supporting the advanced
23 services equipment the requesting carrier intends to install."

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Thus, the loop make-up information begins at the BellSouth central office and ends at the serving distribution terminal. Loop make-up consists of such things as cable gauge and length, bridged taps, load coils, presence of Digital Loop Carrier ("DLC"), and other equipment that is part of local loop facilities.

Q. WHAT HAS BELLSOUTH DONE TO COMPLY WITH THE FCC'S REQUIREMENT THAT LOOP MAKE-UP INFORMATION BE AVAILABLE TO ALECS AS PART OF THE PRE-ORDERING FUNCTION?

A. BellSouth is implementing a process to provide ALECs with electronic access to loop make-up information. BellSouth has also developed and implemented procedures to provide ALECs with detailed loop make-up information via the Service Inquiry ("SI") process. Both the manual and electronic processes are available to any ALEC that is interested in incorporating these procedures into its interconnection agreement.

Q. PLEASE DISCUSS THE MEANS BELLSOUTH HAS DEVELOPED TO PROVIDE ALECS WITH ELECTRONIC ACCESS TO LOOP MAKE-UP INFORMATION.

1 A. BellSouth is developing electronic access to its Loop Facility Assignment
2 Control System ("LFACS") as part of pre-ordering for a loop make-up data
3 query. This access will be via the pre-ordering functionality of the
4 Telecommunications Access Gateway ("TAG") and Local Exchange
5 Navigation System ("LENS") electronic interfaces. A Beta Testing process
6 began July 31, 2000 with selected ALECs. Once the Beta Testing is
7 completed, BellSouth will begin Service Readiness Testing ("SRT") for
8 interested ALECs.

9
10 The loop make-up information will be obtained from the LFACS database
11 via BellSouth's existing electronic interfaces (LENS, RoboTAG™, and
12 TAG). The ALEC will be able to request loop make-up information by
13 means of the following pre-ordering transactions:

- 14 1) Working facility by telephone number and Address
- 15 2) Working facility by circuit ID ("CKID") and Address
- 16 3) Spare facilities (up to 10 per request) at a given address – query
17 only
- 18 4) Spare facilities (up to 10 per request) at a given address – with pair
19 reservation

20
21 This electronic access will provide sufficient information to allow the ALEC
22 to make a decision about whether the loop is capable of supporting the
23 service and equipment the ALEC intends to provide to its end user
24 customer, and, if so, to reserve up to ten pairs.

25

1 Q. PLEASE DESCRIBE THE LOOP MAKE-UP SI PROCESS.

2

3 A. The ALEC completes the "Customer Information" section of the Loop
4 Make-up SI form indicating if it wants the loop make-up by telephone
5 number or address. The ALEC submits the Loop Make-up SI form to the
6 Complex Resale Services Group ("CRSG"). The CRSG forwards the SI
7 form to BellSouth's Outside Plant Engineering Service Activation Center
8 ("SAC"). The SAC verifies the availability of loop facilities.

9

10 If the Loop Make-up SI indicates the ALEC wants the make-up by
11 telephone number, the SAC will return a specific make-up for the
12 requested telephone number. If the Loop Make-up SI indicates the ALEC
13 wants the make-up by address, the SAC will return a specific make-up for
14 the requested address.

15

16 The SAC will supply a suitable copper pair and a DLC make-up for the
17 requested address or requested telephone number. If either a copper
18 pair, or DLC, but not both exists at that address/telephone number, the
19 SAC will indicate in the "Comments Section" which is not available at the
20 requested address/telephone number. The following is an example
21 comment for an existing DLC make-up where a copper pair does not exist:
22 "Provided DLC make-up at above address, no copper pairs exist at this
23 location". Again, the loop make-up will be listed in sequential order

1 starting at the central office and ending at the end user terminal. The
2 SAC will return the completed Loop Make-up SI to the CRSG. The CRSG
3 reviews the SI form for completeness and forwards the loop make-up data
4 to the ALEC via electronic mail.

5
6 Q. IS THE MANUAL LOOP MAKE-UP SI AN INTERIM PROCESS?

7
8 A. No. The manual Loop Make-up SI process will continue to be available for
9 obtaining loop make-up information, particularly for those situations where
10 the LFACS is not populated with the data needed to make a decision
11 through electronic means.

12
13 Q. DOES BELLSOUTH PROVIDE THE ALEC ACCESS TO BELLSOUTH'S
14 RECORDS FOR OBTAINING FACILITY INFORMATION IN
15 SUBSTANTIALLY THE SAME TIME AND MANNER THAT BELLSOUTH
16 PROVIDES TO ITSELF?

17
18 A. Yes. The availability of facilities on selected services for both ALECs and
19 BellSouth's Retail units is determined via the SI process. The SI process
20 provided to ALECs is accomplished in substantially the same time and
21 manner as BellSouth does for itself.

22

1 Q. ON PAGE 44 OF HIS TESTIMONY, MR. RIOLO STATES " BST KEEPS
2 SUCH INFORMATION [LOOP MAKE-UP] IN ... MAP VIEWER." PLEASE
3 DESCRIBE MAP VIEWER.

4
5 A. Map Viewer provides certain BellSouth employees with access to
6 BellSouth's electronically stored plats records. Map Viewer accesses
7 plats to compile a loop make-up report. However, the plat records
8 accessed through Map Viewer contain significantly more information than
9 loop make-up. It also should be noted that Map Viewer is only available
10 for BellSouth's eastern states (Florida, Georgia, North Carolina, South
11 Carolina) and 13 wire centers in Alabama.

12

13 **REBUTTAL OF TESTIMONY**

14

15 Q. MR. MCMAHON, ON PAGE 26 OF HIS TESTIMONY, ALLEGES THAT
16 BELL SOUTH PERFORMS TOO MANY ALEC ORDERING ACTIVITIES
17 MANUALLY. PLEASE COMMENT.

18

19 A. First, Mr. McMahon makes judgmental comments as to the performance
20 of BellSouth's electronic ordering systems without providing any
21 supporting data. Thus, his testimony on the point is difficult to rebut.

22

23 Second, BellSouth currently provides ALECs nondiscriminatory access to
24 its OSS functions for pre-ordering, ordering, provisioning, maintenance

1 and repair, and billing through robust and reliable manual and electronic
2 interfaces. These interfaces allow the ALECs to perform functions of pre-
3 ordering, ordering, provisioning, maintenance and repair, and billing for
4 resale services in substantially the same time and manner as BellSouth
5 does for itself in conformance with the FCC's requirements; and, in the
6 case of unbundled network elements, provide a reasonable competitor
7 with a meaningful opportunity to compete which is also in compliance with
8 the FCC's requirements. BellSouth is not obligated to provide ALECs with
9 any additional access to its OSS.

10

11 Q. BEFORE ADDRESSING MR. MCMAHON'S COMMENTS FURTHER,
12 WILL YOU DEFINE THE DIFFERENCE BETWEEN MANUAL
13 SUBMISSION AND ELECTRONIC SUBMISSION WITH SUBSEQUENT
14 MANUAL HANDLING OF LOCAL SERVICE REQUESTS ("LSRS")?

15

16 A. Yes. Manual submission refers to the manual or non-electronic
17 submission of LSRs. *Manual submission of LSRs can be accomplished*
18 *by facsimile. The manual submission is a result of the fact that the*
19 *services ordered require substantial manual handling and cannot be*
20 *submitted electronically. Therefore, the computer programming necessary*
21 *to allow mechanical generation of the service order is not available.*
22 *Alternatively, some ALECs may simply choose not to utilize BellSouth's*
23 *electronic interfaces.*

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Electronic processing with subsequent manual handling means the LSRs may be submitted electronically by the ALEC but the requested service orders are designed to "fall out" for manual handling by the Local Carrier Service Center ("LCSC"). The most common reason for this "fall out" is from the fact that the requested services are complex or for other specified reasons, such as a request to expedite the order. After these LSRs are transmitted to BellSouth via the electronic interface, they are handled as if they were faxed to the LCSC.

Q. DOES NONDISCRIMINATORY ACCESS MEAN ALL SERVICES MUST BE ORDERED ELECTRONICALLY?

A. No. Nondiscriminatory access does not require that all LSRs be submitted electronically and involve no manual handling. Many of BellSouth's retail services, primarily complex services, involve substantial manual handling by BellSouth Account Teams for BellSouth's own retail end user customers. Nondiscriminatory access to certain functions for ALECs also legitimately may involve manual processes for these same functions. These processes are in compliance with the Act and the FCCs rules. Therefore there is no requirement that every LSR has to be submitted electronically in order to provide non-discriminatory access.

1 Q. ON PAGES 4-5 OF HIS TESTIMONY, MR. STACY STATES AT
2 CERTAIN TIMES, ORDERS ... WILL FALL OUT AND REQUIRE
3 MANUAL HANDLING." IN HIS DISCUSSION, MR. STACY ALLEGES, "I
4 HAVE ASSUMED THAT ORDERS WILL FALL OUT OF THE SYSTEM
5 2% OF THE TIME." IS THIS ASSUMPTIONS CORRECT?
6

7 A. No. Mr. Stacy's assumption is incorrect and unsubstantiated. Based on
8 the data as reported monthly in BellSouth's Percent Flow-through Service
9 Requests (Detail) report, the percent of Non LNP UNE LSRs submitted
10 electronically which fall out by design for the past three month period (May
11 through July, 2000) has ranged from 15.8% to 20.4%. Specifically for the
12 month of July, 2000 the percent was 20.4%. This is based on 43,450 total
13 mechanized LSRs submitted and total manual fallout of 8,861. Thus,
14 BellSouth's assumption that 7% of LSRs submitted electronically will fall
15 out by design is more than reasonable.
16

17 Q. IN ADDITION TO THOSE THAT FALL OUT BY DESIGN ARE THERE
18 OTHER TYPES OF ELECTRONICALLY SUBMITTED LOCAL SERVICE
19 REQUESTS, WHICH REQUIRE MANUAL HANDLING?
20

21 A. Yes. There are errors that are the result of ALEC input that must first be
22 processed by the LCSC. These errors are where the mechanized system
23 has not been programmed to return the error automatically to the ALEC

1 that originated the input. The reason for the system not automatically
2 returning these is that the error may be the result of BellSouth's systems.
3 Thus, a representative in the LCSC must review the transaction in order to
4 make that determination. If the determination is made that the error is the
5 result of the ALEC input, then it is returned to the ALEC for correction. If it
6 is determined that the error is the result of BellSouth's systems, the
7 representative in the LCSC will make the necessary input to correct the
8 request.

9

10 Q. WHAT DOES BELLSOUTH'S DATA REFLECT CONCERNING ALEC
11 ERRORS?

12

13 A. Based on the same three-month period (May through July, 2000)
14 BellSouth has experienced ALEC errors in a range of 8.3% to 15.1% of
15 Non LNP UNE validated LSRs. Validated LSRs are those mechanically
16 submitted LSRs after subtraction of LSRs that fall out by design for
17 manual processing and LSRs where the system has generated an error
18 message and automatically sent back that LSR to the ALEC for correction.
19 Specifically for the month of July, 2000 the error rate for ALECs was
20 13.6%. This is based on 27,899 validated LSRs and ALEC errors of
21 3,807. Thus, BellSouth's assumption that 3% of basic LSRs submitted
22 electronically will fall out because of ALEC error is more than reasonable.

23

1 Q. WHAT ARE BELLSOUTH'S PLANS TO ALLOW ELECTRONIC
2 SUBMISSION OF ADDITIONAL UNE SERVICES?

3

4 A. BellSouth will continue to develop electronic submission capabilities based
5 on such factors as ALEC input through BellSouth's Change Control
6 Process ("CCP"), transaction volume, and standards development.
7 Additional capabilities are continually being assessed.

8

9 Q. MR. NILSON CLAIMS ON PAGE 13 OF HIS TESTIMONY THAT
10 BELLSOUTH HAS REFUSED TO PROVIDE LFACS DATA TO THE
11 ALECS. IS THIS CORRECT?

12

13 A. Absolutely not. As I stated previously, BellSouth currently provides
14 detailed loop make-up information via the SI process. Furthermore,
15 BellSouth is developing electronic access to its LFACS for a loop make-up
16 data query and began beta testing with selected ALECS on July 31, 2000.

17

18 Q. ON PAGE 47 OF HIS TESTIMONY, MR. RIOLO ALLEGES THAT ILEC
19 [INCUMBENT LOCAL EXCHANGE COMPANY] FIELD OPERATIONS
20 PERSONNEL HAVE BEEN ABLE TO OBTAIN SUCH ACCESS [DIRECT
21 READ-ONLY ACCESS TO LFACS] FOR YEARS. PLEASE COMMENT.

22

1 A. Mr. Riolo does not state clearly his definition of "field operations
2 personnel". If he means service technicians, Mr. Riolo is mistaken.
3 BellSouth service technicians do not have access to LFACS.

4
5 Certain BellSouth work groups, such as the Outside Plant Engineering
6 ("OSPE") group and Address and Facilities Inventory Group ("AFIG"),
7 must have access to LFACS and/or Map Viewer in order to perform their
8 daily work activities. OSPE and AFIG personnel have access via the
9 computer terminals within their offices and do not have remote read-only
10 access. A limited number of BellSouth personnel with a need to access
11 LFACS remotely can do so via secure remote access.

12

13 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

14

15 A. Yes.

1 BY MS. WHITE:

2 Q And Mr. Pate, you did not have any exhibits to
3 your rebuttal testimony, did you?

4 A No, I did not.

5 Q Do you have a summary for us, please?

6 A Yes, I do.

7 Good morning. The purpose of my testimony is to
8 respond to allegations made by witnesses of Sprint and
9 Broadslate Networks, Cleartel Communications, Florida
10 Digital Networks, and Network Telephone Corporation, known
11 as the Coalition, and BlueStar, Covad, Rhythms Links,
12 known as the Data ALECs and Supra.

13 In the process, I also address the Federal
14 Communications Commission's, FCC's, 319 remand order as it
15 relates to BellSouth's operations support systems, OSS,
16 including the requirement that BellSouth must provide
17 alternative local exchange carriers, ALECs, access to loop
18 makeup data.

19 First, allow me to address the FCC's 319 remand
20 order and what that order requires of incumbent local
21 exchange carriers, such as BellSouth, regarding OSS. The
22 FCC stated in paragraph 426 of that order that they found
23 no reason to modify the definition of OSS.

24 However, the FCC did clarify in that same
25 paragraph that the pre-ordering functions includes access

1 to loop qualification, also known as loop makeup
2 information.

3 Paragraphs 427 and 428 further stipulate that
4 the incumbent local exchange carrier must provide
5 requesting carriers with nondiscriminatory access to the
6 underlying loop qualification information available to the
7 incumbent so that the requesting carrier may make an
8 independent judgment about whether the loop is capable of
9 supporting advanced services equipment the requesting
10 carrier intends to install.

11 To comply with the 319 remand order, BellSouth
12 implemented a manual loop makeup service inquiry process.
13 This process provides ALECs with nondiscriminatory access
14 to the same underlying loop makeup information that is
15 available to BellSouth.

16 In addition to the manual service inquiry,
17 BellSouth is in the course of implementing electronic
18 access to the detailed loop makeup information contained
19 within BellSouth's loop facilities assignment and control
20 system, LFACS.

21 LFACS is the database of record where loop
22 makeup information resides within the BellSouth OSS. This
23 electronic query to LFACS is currently being beta tested
24 with several ALECs and will be available to interested
25 ALECs upon conclusion of that testing. The same system

1 lease that provides electronic access to LFACS for loop
2 makeup information will also provide ALECs with the
3 ability to electronically order ADSL, HDSL, and unbundled
4 copper loops.

5 Please allow me now to turn my focus to issues
6 raised by the intervening parties. These parties would
7 have the Commission believe that BellSouth performs too
8 many manual activities. BellSouth currently provides
9 ALECs nondiscriminatory access to its OSS functions for
10 pre-ordering, ordering, provisioning, maintenance and
11 repair, and billing through robust and reliable manual and
12 electronic interfaces.

13 These interfaces allow the ALECs to perform
14 functions of pre-ordering, ordering, provisioning,
15 maintenance and repair, and billing for resell services in
16 substantially the same time and manner as BellSouth does
17 for itself the conformance with FCC's requirements. And
18 in the case of unbundled network elements, provide a
19 reasonable competitor with a meaningful opportunity to
20 compete, which is also in compliance with the FCC's
21 requirements.

22 BellSouth is not obligated to provide ALECs with
23 any additional access to its OSS. In addition,
24 nondiscriminatory access does not require that it be
25 electronic access. Many of BellSouth's retail services

1 involve substantial manual handling. Nondiscriminatory
2 access to certain functions per ALECs also legitimately
3 involve manual processes for these same functions.

4 The intervenor's question of fallout rates, for
5 electronically-submitted local service requests, LSRs, as
6 well as the ALEC error rate, the fallout rate reflects the
7 percentage of electronically-submitted LSRs, which fall
8 out by system design, either because the system is not
9 programmed to electronically translate that LSR into a
10 format acceptable by BellSouth's downstream systems for
11 provisioning or because the LSR has other criteria, such
12 as it being expedited, which requires human intervention.

13 The ALEC error rate is the result of
14 electronically-submitted local service requests that
15 contain ALEC input errors, as determined by a
16 representative in BellSouth's local carrier service
17 center.

18 The rates used by BellSouth for UNE costing was
19 7% for the fallout and 3% for the ALEC errors. These
20 rates were based on 1999 available data, which was a
21 compilation of both resale and unbundled network element
22 transactions. Starting in January 2000, disaggregated
23 data became available.

24 As pointed out in my testimony, the
25 disaggregated data clearly supports BellSouth's

1 assumptions being conservative and more than reasonable.
2 The fallout rate for the three-month period, May through
3 July 2000, ranged from 15.8% to 20.4% for unbundled
4 network elements. The ALEC error rate for unbundled
5 network elements for that same time period ranged from
6 8.3% to 15.1%.

7 Thank you. This concludes my summary.

8 MS. WHITE: Mr. Pate is available for cross
9 examination.

10 MR. MELSON: Commissioner, could we start at
11 that end of the table on this witness?

12 CHAIRMAN DEASON: Sure.

13 CROSS EXAMINATION

14 BY MR. BRESSMAN:

15 Q Good morning, Mr. Pate. I'm Michael Bressman
16 from BlueStar. Good to see you again.

17 A Good morning.

18 Q Are you BellSouth's OSS expert in this
19 proceeding?

20 A Yes, I am.

21 Q Do any other BellSouth witnesses in this
22 proceeding have information on BellSouth's OSS?

23 A There may be some varied knowledge, but I would
24 be considered the expert.

25 Q Briefly, what exactly is loop makeup

1 information?

2 A Loop makeup information is the compilation of
3 data that exists in our database, specifically, in the
4 LFACS that I discussed in my summary, that gives such
5 information as load coil information, bridge tap
6 information, the type and gauge of the loop itself, the
7 length of the loop. It may also give some information
8 concerning equipment on the loop so that that information
9 can then be, in turn, given to the ALEC and they can use
10 it to qualify it for the type of service and equipment
11 they intend to put on that loop to provide to their end
12 user customer.

13 Q You mentioned LFACS. Do any BellSouth employees
14 have electronic access to LFACS?

15 A You would have employees that work in
16 BellSouth's FACS center, primarily, that have electronic
17 access through a terminal that directly feeds into LFACS.
18 So, they would be able to retrieve and input information
19 into LFACS.

20 Q Any other personnel at BellSouth?

21 A There are people that have access for purposes
22 at staff level to do work in LFACS, mainly from the I.T.
23 standpoint or just other information to look at it, if
24 they're working from a staff level. But from a daily
25 operational, those are the individuals.

1 Q And do any employees have remote access
2 electronically?

3 A Some of those same individuals that I mentioned
4 at the staff level, I'm aware of, do have the capability
5 for remote access, primarily if they're working from home
6 or such as that nature, but remote access is not something
7 that we offer across the board.

8 Q Are plats that contain loop makeup information
9 stored in electronic format at BellSouth?

10 A They are for certain states. For the state of
11 Florida they are in all what's referred to as the old
12 southern bell states. We now refer to those as the
13 eastern states, as well as there's 13 wire centers in the
14 state of Alabama. For those states, the plats are
15 electronically stored in the BellSouth facilities
16 database. All other states, they're still stored in paper
17 mode.

18 Q And they're available at every wire center in
19 Florida?

20 A Yes, they are.

21 Q Electronically?

22 A Yes.

23 Q Would you please explain to me what Map Viewer
24 is?

25 A Map viewer is a software application. It

1 resides on what's referred to as OPEDS, O-P-E-D-S. That's
2 the Outside Plant Engineering -- I think, it stands for
3 Data System, not sure about the DS. But it's a desktop
4 application that has many different software modules
5 associated with it, which Map Viewer is one. One of the
6 functionalities of Map Viewer that's in discussion here is
7 Map Viewer has the ability to access that electronic plat
8 or plats and do a loop makeup.

9 Q Is Map Viewer used to access a different
10 database than LFACS?

11 A No, not that I'm aware of. Excuse me, let me
12 back up. What it accesses, yes. It accesses BellSouth's
13 corporate facilities database, I'm sorry, of which the
14 same information that resides on plat there is then built
15 into LFACS, but it's accessed into the BellSouth corporate
16 facilities database.

17 Q So, that is a different electronic database than
18 LFACS?

19 A Yes, I apologize. That is the database where
20 the electronic plats are housed.

21 Q And how fast is electronic access to the
22 corporate database throughout the Map Viewer?

23 A Well, it's very quick. Of course, you have to
24 go through the logging-in process of getting in through
25 the OPEDS logged into the database itself. But once

1 you're in, you're talking about, you know, a few seconds
2 to minutes to access information.

3 Q And the log-in process takes about how long?

4 A Just how well the system's cooperating that way,
5 but it shouldn't only take but a few minutes.

6 Q And are there any other databases at BellSouth
7 that contain loop makeup information?

8 A TIRKS has information for design circuits.
9 TIRKS is T-I-R-K-S. That's the Trunk Integrated
10 Recordkeeping System. And in TIRKS, however, that is for
11 active design circuits. That same information that it
12 would have for loop makeup resides also in LFACS. So,
13 it's redundant information.

14 Q And just going back to the Map Viewer access to
15 the plat database, which BellSouth personnel have
16 electronic access?

17 A It's the outside plant engineering personnel as
18 well.

19 Q Any other personnel?

20 A Not that I'm aware of. You may have some people
21 in the I.T. organizations that work on the system, but
22 other than that, it's designed for outside plant
23 engineering.

24 Q What percentage of BellSouth's loops are in
25 LFACS?

1 A All of the loops are in LFACS. You have core
2 information 100% of all loops are in LFACS.

3 Q And when you say core information, what is that?

4 A There's some basic information, such as your
5 loop and pair type identifier assignments that exist for
6 every loop within BellSouth.

7 Q And what percentage of the loops have more
8 detailed information?

9 A The percent -- let me answer that two ways for
10 you. The percentage, if you look at a high-populated
11 area, such as Tallahassee, Miami, it's extremely high
12 where it has more detailed information, that gets to the
13 detail being the bridge taps, the load coils and such,
14 that percentage range for those high-populated
15 metropolitan type areas is in the 75% to 85% range.

16 Now, BellSouth has a lot of rural territory.
17 So, once you go outside those highly-populated areas,
18 then, there's not as much detailed information. So, if
19 you did that in mathematics associated with the entire
20 area, it would then go down to probably a 25% to 30% range
21 of that detailed information being populated.

22 Q How long has LFACS existed?

23 A I never looked that up. You asked in the
24 deposition. I can tell you it's been there a lot longer
25 than I've been with BellSouth. It's one of the older

1 systems. It's definitely an old nonflexible legacy
2 system.

3 Q Approximately, 20 years?

4 A That would be my guess, but I am guessing that.
5 I did never look into it.

6 Q How is information put into LFACS?

7 A It's put in a couple ways. The primary way that
8 it's put in is really through the OPEDS applications when
9 there's a construction or new items being placed out there
10 in the plant, new facilities.

11 So, it would drive information being populated
12 to LFACS. Then, the information can be inputted manually
13 as we get additional information as well. And people
14 primarily in the FACS center would make those inputs.

15 Q Does BellSouth populate LFACS on a going-forward
16 basis?

17 A Oh, definitely. I mean, as we get information,
18 for example, if an ALEC did a service inquiry using a
19 manual process today, when that information is retrieved
20 and we get that information loaded into LFACS, it will be
21 available eventually for electronic query.

22 COMMISSIONER JACOBS: How do you ensure that the
23 information in Map Viewer is consistent with the
24 information in LFACS?

25 THE WITNESS: The Map Viewer really is the core

1 information. That is our facilities. That's where the
2 plats reside. So, that is the information that we would
3 say is 100% correct. And to get to your question, how do
4 you assure that is as information has been loaded into
5 those plats through a construction job, a redesign, so
6 forth, that information gets loaded via the OPEDS that I
7 mentioned, that desktop module. There's a couple
8 different modules they use. Specifically, for that they
9 would use the EWO, stands for Engineering Work Order, that
10 would load that information.

11 Built in that also, is to electronically
12 transmit that to LFACS at the same time. So, going
13 forward, that's been built. So, there shouldn't be major
14 discrepancies.

15 COMMISSIONER JACOBS: Okay, thank you.

16 BY MR. BRESSMAN:

17 Q Has BellSouth ever made any efforts to
18 proactively populate the fields of LFACS?

19 A There has been initiatives in the past to take a
20 look and get LFACS information loaded in there. There's
21 not, that I'm aware of, any current initiative do that.

22 Q And no plans to currently -- no plans to
23 proactively populate the LFACS?

24 A Not proactively that I'm aware of. I mean, the
25 80% that I just mentioned in the major metropolitan areas,

1 that's an extremely high percentage, and that's really the
2 target areas where most people want that type of
3 information.

4 Q Mr. Pate, what I am going to show you is
5 BellSouth's response to Georgia Public Service Commission
6 request item number 7 dated June 1st, 2000 in the Georgia
7 xDSL workshop, docket number 1190U, and the cover e-mail
8 that BellSouth sent it to us. I think, this actually may
9 be attached as an exhibit to Mr. Riolo's testimony, but I
10 could be wrong. Have you seen this document before?

11 A Yes, I have.

12 MR. BRESSMAN: Mr. Chairman, I ask that this be
13 moved as an exhibit into the record.

14 CHAIRMAN DEASON: We will identify it at this
15 point. And that will be identified as Exhibit 115.

16 (Exhibit 115 marked for identification.)

17 BY MR. BRESSMAN:

18 Q Do you notice in that data request that
19 BellSouth was asked what is the minimum subset of data
20 available from LFACS. And in BellSouth's response, it
21 says that the following information, to the best of
22 BellSouth's knowledge, is contained in LFACS on each
23 outside plant pair?

24 A Yes.

25 Q Now, looking further, is it correct that the

1 list of information on each plant pair includes presence
2 of DLC, type of DLC, service category and loading
3 information, including type of loading and number of load
4 points?

5 A I see that on the form, yes.

6 Q Does that mean that every loop in LFACS has
7 information on load points -- excuse me, load coils?

8 A I'm not the one that prepared this response nor
9 I don't even want to represent myself as being an outside
10 plant engineer qualified to speak to that level of detail.
11 The answer to your question is I don't know, I'm not sure.
12 My understanding is load coils are not always in the
13 information, but I don't know, and I'm not sure who
14 prepared this response.

15 Q You don't know who prepared this response?

16 A No, I do not. It was not me.

17 Q But you would agree that it's BellSouth's
18 response to the Commission?

19 A Yes. I've seen the document, and I would agree
20 it's the response to that particular request.

21 Q And in addition, if you go further to the
22 bottom, it says in addition the following information is
23 contained on certain outside plant, and that includes
24 length and gauge of cable and total length of bridge tap;
25 do you see that?

1 A Yes, I do.

2 Q Do you have any idea what percentage of the
3 loops in the metropolitan area is contained, bridge tap
4 and loop length information?

5 A That's the same answer that I was referring to
6 earlier. When you talk about the major metropolitan area,
7 it's the 80% range.

8 Q And if detailed information on a loop is not
9 contained on LFACS, would BellSouth be able to obtain it
10 electronically by accessing the plat database through Map
11 Viewer?

12 A Well, the state of Florida, yes.

13 Q And when you said earlier the information on all
14 loops is contained in LFACS, we're talking all types of
15 loops, SL1s, SL2s, ADSL, all types?

16 A That's correct, yes.

17 Q Now, let's talk for a moment about BellSouth's
18 proposed electronic loop qualification database. Please,
19 just briefly, describe what that process will work like.

20 A The process will use BellSouth's current
21 existing interfaces that we developed. Specifically, it
22 will use the Local Exchange Navigation System, LENS, that
23 we've discussed with this Commission before as well as
24 TAG, Telecommunications Access Gateway. That will be
25 applicable for both the TAG, if the CLEC builds its

1 interface, as well as what we refer to as Robo, R-O-B-0,
2 TAG which is the viewing that we developed that CLECs can
3 purchase.

4 Using that -- either one of those interfaces
5 from a pre-ordering mode, the ALEC can input and query
6 LFACS for spare, as well as working facilities. If it's a
7 working facility, they would obviously put the circuit
8 identification or telephone number in, along with the
9 address.

10 If it's for spare facilities, they would just
11 put the address in. They have the ability to query up to
12 10 spares. Of course, if it's a working facility, you
13 just need query in that specific facility. And you have
14 the ability to query for those spares to just get the
15 information back or to get the information back as well as
16 reserve that facility. Based upon that query, you will
17 also input the type of loop for which you are inquiring.

18 The four products that are defined right now is
19 the ADSL, the HDSL, the unbundled copper loop short, and
20 the unbundled copper loop long. Then, the query will come
21 back and give you that information listed into detail.
22 You'll always get something back.

23 And as we have discussed, every loop has certain
24 information loaded. So, you'll get that back. And if you
25 have the more detailed information, you will get all that

1 information back by segment for the loop.

2 Q Now, Mr. Pate, as you may have heard from
3 yesterday's testimony and seen from other filings, one of
4 the ALECs' major contentions is that ALECs just need a
5 plain copper loop to provide DSL service and that
6 certain -- that clean SL1 voice-grade loops would be
7 sufficient. Did you hear that testimony?

8 A Yes.

9 Q Now, let's do this following hypo. Mr. Pate,
10 assume that an ALEC wants to provide DSL service to a
11 certain address, and the ALEC uses the electronic loop
12 makeup inquiry process and finds an acceptable loop. The
13 loop also -- let's say you're doing a UCL short and the
14 loop also happens to meet the technical standards for an
15 SL1 loop. My question is can an ALEC locate an acceptable
16 loop for DSL service and reserve it as an SL1?

17 A No. We discussed this in the deposition that
18 you did. And since that night, I went back to take a look
19 at that, because I wasn't able to answer your question. I
20 told you what I thought, so now let me tell you what I
21 know.

22 And with respect to that is you cannot. That
23 system currently with its current design is for those four
24 product offerings we just mentioned; the ADSL, the HDSL,
25 the unbundled copper loop short and long. That

1 reservation number they get that's referred to as an FRN,
2 we've introduced a new acronym, that facilities
3 reservation number that they get back will then be needed
4 to place that order that would have to be for that ADSL,
5 HDSL for unbundled copper loop. Right now it's not
6 designed for you to use that facility to then place an
7 order for an SL1 loop.

8 Q Some of BellSouth's testimony, I think, the
9 testimony of Mr. Latham, says that SL1s can be used from
10 time to time for DSL service. How would we be able to use
11 the electronic loop makeup inquiry process to do DSL over
12 an SL1?

13 A We talked about this a little bit in the
14 deposition as well. And so, I just gave you some
15 speculation thoughts, but let me make it clear.
16 Currently, that process is not designed for the SL1.

17 There is another phase that will be implemented,
18 probably be latter first quarter next year to early second
19 quarter, that will give you a POTS facility type query,
20 but today that's not available from an electronics
21 standpoint.

22 So, what we talked about in my deposition, and
23 this was just for thought, is you could still use that to
24 query, do your 10 query to see if there are adequate
25 facilities out there that would give you an idea for the

1 address based on what's there available, if that would
2 give you the comfort level to then turn around and order
3 an SL1. There's really not a leakage associated with that
4 query to the current process of order in that SL1 today.

5 Q But if we did the query and didn't reserve a
6 loop, would the ALEC be assured of getting that particular
7 loop at the time it orders the loop?

8 A No. Because once again, it's designed for those
9 four product offerings today. So, the facility
10 reservation number that you would give back, if you even
11 entered it on the order for SL1, the systems are not even
12 programmed to pick that up. It would be meaningless
13 today. It's not even a read in there of what it means to
14 them.

15 Q You said it would be manual today?

16 A No, I said it would be meaningless. Putting the
17 actual FRN, Facilities Reservation Number, on the SL1 for
18 the local service request would be meaningless to the
19 system. It would not pick that up.

20 Q And you said that would be available first
21 quarter 2001?

22 A That's my estimation. So, don't take that as a
23 commitment on the part of BellSouth. That's Ron Pate's
24 estimation of my knowledge on where we are with working
25 with data net space.

1 Q If I find a loop that requires loop conditioning
2 using the electronic process, can I order loop
3 conditioning electronically?

4 A I'm not sure. It may be a part of the release
5 we just put in, and I just don't recall. I apologize.

6 Q If there are mistakes in BellSouth's LFACS
7 database, say, information said that there were no load
8 coils, but it turned out there actually were, does the
9 ALEC have to pay anything to correct that mistake?

10 A Well, certainly. If there's a mistake, it's a
11 mistake, and it's going to be a mistake for us as well, if
12 we were trying to use that loop. So, yes, you still have
13 to condition that or we could take a look and see if
14 there's another loop that could fit your --

15 Q I guess, what I'm asking is would I then have to
16 do a manual inquiry on the loop to get the information and
17 then pay for that? In other words, how would it be
18 processed through the BellSouth system?

19 A Well, that's going to show up when they actually
20 get to the design of the loop itself, which is -- some of
21 it's electronic. For the most part, when we refer to
22 that, that's a manual process. That's part of the
23 provisioning process. This is different from ordering and
24 provisioning. At that point, that's when it would show up
25 if there is something on the loop as part of that that

1 didn't work in that design.

2 So, at that point, they may be able to take a
3 look, find another loop. I've never looked at it from
4 that -- what their process is. You're into an area that
5 really starts to get beyond my expertise, which is the
6 provisioning area.

7 Q Okay. Does BellSouth build any time into its
8 cost studies, to your knowledge, for manual work to assure
9 that there are no BellSouth mistakes from the electronic
10 database?

11 A Could you please ask that one more time?

12 Q Does BellSouth build any time into its cost
13 studies for any manual work to assure that there are no
14 BellSouth mistakes from the electronic database?

15 A I don't know. You'd have to ask Ms. Caldwell.

16 Q If an ALEC performs an electronic loop makeup
17 inquiry and the information that comes back is incomplete,
18 because the fields in LFACS were not fully populated,
19 would an ALEC then be charged a manual charge to obtain
20 the missing information?

21 A Yes. If at that point and time, we're seeing
22 that LFACS does not have the information, then the only
23 way we could get it is through the manual process.

24 Q Can an ALEC get electronic access to the
25 database access by Map Viewer?

1 A The database, being the BellSouth corporate
2 facilities database?

3 Q Exactly.

4 A No.

5 Q Does BellSouth plan to provide any sort of
6 interface or access?

7 A BellSouth is looking at the possibility of
8 providing the information that Map Viewer can retrieve,
9 but would not be an access to the database.

10 COMMISSIONER JACOBS: Are there orders that fall
11 out of Map Viewer -- inquiries? I'm sorry. Are there
12 inquiries for a loop makeup that would require a manual
13 processing to Map Viewer?

14 THE WITNESS: Let me make sure I understand your
15 question. You're asking if you're using Map Viewer --

16 COMMISSIONER JACOBS: Right.

17 THE WITNESS -- is there an opportunity for the
18 inquiry fallout you could not get the information?

19 COMMISSIONER JACOBS: Right.

20 THE WITNESS: No, sir. The Map Viewer is
21 accessing the electronic plats. That is true for where
22 the facility information resides. So, there should be no
23 fallout.

24 Let me make it clear that Map Viewer just does a
25 one time compilation based on the central office and

1 address. It doesn't retain information. This is a
2 software application that has an algorithm built into it
3 that does a continuity trace.

4 In other words, it's tracing from that central
5 office for each segment based to the serving end office
6 for that given address. So, it does that snapshot for you
7 one time, and then it doesn't retain or capture that
8 information. You have to do it again each time.

9 COMMISSIONER JACOBS: Thank you.

10 BY MR. BRESSMAN:

11 Q But you could download that information or print
12 it out; could you not?

13 A Yes, you could print it out.

14 Q I'd like to talk about fallout for just one
15 moment. On pages 10 and 11 of your testimony, you talk
16 about design fallout. And, I think, you describe one of
17 the reasons as being complex orders. Are DSL orders
18 considered complex orders?

19 A Yes, they are.

20 Q Will they be considered complex orders once the
21 loop makeup -- electronic loop makeup inquiry process is
22 in place?

23 A Yes, they are.

24 Q Will they be designed to fall out once the
25 electronic process is in place?

1 A No, they're not designed to fall out. And we
2 had a lengthy discussion in my deposition. And this is a
3 confusing topic, so let me see if I can make what's a
4 confusing topic a little better.

5 I just had the opportunity last night, when I
6 got the transcript, to read over it and take a look at
7 some of our discussion. But what we're talking about when
8 we talked about fallout here, we're talking about the
9 ordering process.

10 So, we're talking about the submission of the
11 local service request in that order, that local service
12 request being translated into what I'll refer to as a
13 Service Order Communication System, SOCS, compatible
14 format, so it can be provisioned.

15 So, we're talking about some particular ones are
16 designed to fallout; meaning, we have not been able to
17 figure out how to program that translation of that LSR to
18 that SOCS-compatible format. In addition, there is also
19 certain criteria on top of that that's layered that
20 results in some things fallen out by design.

21 Couple examples, one we talked about is if the
22 ALEC wants to expedite an order, someone has to intervene
23 and manually expedite. Another one for loops that we
24 didn't mention in the deposition, but good for
25 illustration purposes, if you did a loop order for 16 or

1 more, and it's designed that someone has to intervene,
2 project manage that, probably, and that would fall out.
3 That's what I'm talking about by the fallout there.

4 Q On page 11, line 14, you cite a 7% assumption
5 that submitted -- order submitted electronically would
6 fall out by design. Is that 7% just an order fallout
7 percentage?

8 A Yes. It's strictly just the order fallout
9 percentage, has nothing to do with anything that has any
10 intervention once it's provisioned. So, that's getting it
11 through to SOCS so that it can be provisioned.

12 Q I guess, what I'm asking is once the electronic
13 loop makeup inquiry process is in place, it's correct that
14 ADSL, HDSL, and UCL orders will no longer be designed to
15 fall out?

16 A It will not be designed to fall out, except for
17 that additional criteria that I mentioned, such as being
18 expedited or 16 or more loops.

19 Q Would 7% -- assuming no expediting and no
20 multiple orders, would the design -- the appropriate
21 design fallout rate for ADSL, HDSL, and UCL loops be zero
22 percent?

23 A Well, that's an accurate statement, but I've got
24 to make sure everybody stands. It's not even realistic or
25 reasonable to think that none of the other criteria would

1 actually also result in it falling out.

2 Q Based on your experience, do you know whether 7%
3 of ADSL, HDSL, and UCL orders are either expedited or
4 multiple orders?

5 A No, I don't have any data, have not been able to
6 look at any data that breaks it down by that type of level
7 of analysis.

8 Q So, you don't know whether 7% would still be
9 appropriate once we had the electronic loop makeup inquiry
10 process?

11 A Well, what I do know is based on the data that I
12 stated in my testimony, and that's data for all unbundled
13 network elements, that this is more than reasonable.
14 Because as I stated, in a three-month range, we saw 15% to
15 20% falling out. Now, the reason I was able to do that,
16 and was not able to do that as part of the initial
17 analysis that developed a 7% is I didn't have any type of
18 data to just split it out by resale activity versus
19 unbundled network element activity transactions. So,
20 starting January, I do have data specific to unbundled
21 network elements. That's where that information comes
22 from.

23 Q So, this data does not include the complex
24 resale information?

25 A No, it does not. That's specific to unbundled

1 network elements.

2 Q And does this data include information for loops
3 that are designed to fall out for reasons other than
4 expediting and multiple orders?

5 A Yes. It captures all the fallout, whether it's
6 that type of order itself was designed or the other
7 criteria actually took place.

8 Q But again, ADSL, HDSL, and UCL loops after the
9 electronic makeup process is in place will not be designed
10 to fall out.

11 A That's true, but also recognize that right now,
12 the -- I say right now, let me clarify that.

13 Until the recent release, which is under beta
14 testing, they cannot be ordered electronically either.
15 So, they were not part of this data.

16 Q Okay. I'd like to move on to another topic.

17 Mr. Pate, what I'm going to show you are copies
18 of the printout of BellSouth's loop qualification database
19 cost study. This is file FLLQDB. I believe, this was
20 already admitted into the record as part of BellSouth's
21 overall cost study.

22 And what I'm sending around are a confidential
23 version. So, I don't want to admit this into the record,
24 but I wanted you to have it for your convenience. Will
25 you turn to pages 7 through 10, and just look at those for

1 a moment.

2 On pages 7 through 10, there are a number of
3 items listed, like Telcordia PCs, SIAC testers, computers,
4 data equipment, EDS, initial installation, HP software,
5 Telcordia software, and an Andersen contract. Have you
6 seen this document before?

7 A I've seen similar documents. You showed me, I
8 think, this same document at our deposition.

9 Q Are you familiar with any of this equipment and
10 software?

11 A No.

12 Q Do you know if the cost for the equipment
13 software and contracts on pages 7 through 10 for
14 BellSouth's loop qualification database cost study are
15 primarily for the development of access to BellSouth's
16 OSS?

17 A It is primarily for the development of access to
18 the OSS and also development for the different
19 functionalities needed for the loop makeup and such.

20 Q Let's turn to page 7. Looking at line 9, the
21 Telcordia PCs for SIAC testers, do you know what this is
22 and what it does for the loop qualification database?

23 A No, not specifically. I know that the SIAC
24 testers, that's a vendor that we have, we employ, so they
25 need PCs to actually work on this and do some testing, but

1 that's my, Ron Pate's, high-level description. I know no
2 more details than that.

3 Q And on line 10, the midrange computers, do you
4 know what these do?

5 A No.

6 Q And on line 11, the data communications
7 equipment and installation?

8 A No. I was not involved with any of the details
9 of this.

10 Q Let's jump down to line 30 -- I'm sorry, line
11 20. You see Andersen's FTP's ongoing application
12 maintenance. My understanding from Ms. Caldwell's
13 late-filed exhibit to her deposition, FTP stands for
14 full-time people. If you look at Column F, it seems to be
15 a rather large number of people. Do you have any idea
16 what they're doing?

17 A No. It says ongoing application maintenance.
18 So, it's some type of maintenance support on an ongoing
19 basis for the application, but I'm just reading that from
20 what the line itself says.

21 Q And on line 25, page 7, again, we have Andersen
22 FTP program development, looks like a lot of people there
23 as well. Have any idea what they're doing?

24 A Not specifically, but I'm just reading the line
25 as you. And Andersen's one of the firms that we utilize

1 to do development work for us on our OSS systems. That's
2 all I know.

3 Q And again, you're BellSouth's OSS expert in this
4 proceeding?

5 A I am the expert from the higher systems work,
6 yes.

7 Q I have one last question about demand forecast.

8 MR. BRESSMAN: Mr. Chairman, I believe, this is
9 the last page of Exhibit 104. I think, Mr. Melson
10 admitted that into the record. He had left out the last
11 page. Can we have this document included in the record as
12 part of Exhibit 104 or would you rather do it as a
13 separate exhibit?

14 CHAIRMAN DEASON: This page was inadvertently
15 omitted from 104?

16 MR. BRESSMAN: No. Initially, we thought it was
17 proprietary page, I believe, and it's not.

18 CHAIRMAN DEASON: So, we can just add this to
19 104. Okay, we'll just clarify for the record that this is
20 to be part of Exhibit 104.

21 BY MR. BRESSMAN:

22 Q I'd like you to go to line 46 of this document.
23 You see on the bottom these appear to be forecasts of the
24 total forecasts of in-service xDSL-capable loops and says
25 about 9,500 for the year 2000, 14,000 and change for 2001,

1 17,765 for 2002. Am I correct that these are the
2 assumptions used in the ULM cost study?

3 A I don't know.

4 Q Would you hold on to that document and turn to
5 -- hold on to that document. Turn to --

6 MR. BRESSMAN: Would you hand those out again,
7 please? I apologize, I didn't mean to take that document
8 back.

9 BY MR. BRESSMAN:

10 Q Would you turn to 8 page of the loop
11 qualification database cost study.

12 A I'm there.

13 Q And would you look at line 18. Do you see the
14 numbers there? That line is identified as annual number
15 of loops submitted to qualification?

16 A Yes.

17 Q Those numbers, would you agree, are an extremely
18 high magnitude compared to the numbers on line 46?

19 A I would agree, but I don't know that they
20 represent the same thing, I don't know.

21 Q Well, I guess, my question is this: This would
22 appear to say the annual number of loops that are being
23 submitted for loop qualification, and we have a very, very
24 large number, and on line 46 of the ULM cost study for the
25 forecast of the numbered lines that are actually going to

1 service, we seem to have, by comparison, a very small
2 number.

3 A Yes, but once again, I wasn't involved with
4 this. One is what appears to be doing is comparing the
5 number of queries for loops, and the other is actually the
6 number of loops in service. So, they're representing two
7 different things, I don't know the relationship between
8 the two, and I was not involved with any compilation of
9 these figures.

10 Q I understand that. My question, though, is do
11 you think it is reasonable, based on that number of
12 queries, to have that number -- the number of queries
13 listed on line 18 of page 8 of the loop qualification
14 database? Do you think it's reasonable, based on that
15 number of queries, to have only that number of lines,
16 which are on line 46 of the ULM cost study?

17 MS. WHITE: Excuse me, I'm going to have to
18 object. I think, Mr. Pate has already said on several
19 occasions that he does not know what made up these
20 particular numbers. So, I'm not sure how he could say
21 what is reasonable or not.

22 CHAIRMAN DEASON: There's been an objection to
23 the question.

24 MR. BRESSMAN: Well, it seems to me that
25 Mr. Pate is the OSS expert. And we are talking about the

1 loop qualification database. And I'm just trying to
2 figure out if he knows anything about how we go from one
3 forecasting to the other forecasting.

4 CHAIRMAN DEASON: Well, I think, the witness is
5 going to give you the same answer you got before, but I'll
6 let the question stand.

7 A I don't know.

8 MR. BRESSMAN: That's all my questions.

9 MS. BOONE: Thank you, Mr. Chairman.

10 CROSS EXAMINATION

11 BY MS. BOONE:

12 Q Hello, Mr. Pate, Cathy Boone with Covad; how are
13 you?

14 A Fine, and you?

15 Q I just have very, very few questions for you.

16 Now, let's get this straight. Let's say, for
17 example, Covad wants to bring DSL to a customer. And
18 let's take, for example, Commissioner Deason, we want to
19 bring him DSL. So, we would put in --

20 CHAIRMAN DEASON: Do you know where I live?

21 MS. BOONE: No, sir, I do not.

22 CHAIRMAN DEASON: Well, I think, you may rethink
23 that example.

24 BY MS. BOONE:

25 Q We'll bring it right to the Commission then, how

1 about this office?

2 CHAIRMAN DEASON: Okay.

3 BY MS. BOONE:

4 Q At any rate, I put in an address, is that
5 correct, into LFACS?

6 A For spare facilities, you'd put in an address
7 into LENS or TAG that would then go to LFACS.

8 Q Right, okay.

9 CHAIRMAN DEASON: Well, I would welcome you to
10 do it, I just don't think that you will.

11 MS. BOONE: We're trying, sir, we're trying.

12 BY MS. BOONE:

13 Q So, that's how I do it. I put in an address and
14 the information comes out and says what spare facilities
15 are there, correct?

16 A Yes. You'd designate today, based on the ADSL,
17 HDSL, or the unbundled copper loop.

18 Q Okay. Would you agree with me if I were
19 searching for all-copper loops, I could just fool your
20 system by putting in a request for a UCL long, because
21 that would give me the longest copper out there?

22 A I really wouldn't know. It may, I don't know.

23 Q Okay. I'll represent to you that that's how
24 someone suggested in the line sharing collaborative,
25 someone from BellSouth suggested that we should use your

1 database, but that's fine.

2 A All right.

3 Q So, anyway, I'm putting this in there, I'm
4 getting my spare facilities back. Now, would you agree
5 with me that LFACS does not -- LFACS contains information
6 about facilities, correct?

7 A Yes.

8 Q And when I'm looking at it, I see segments,
9 segments of different cable pairs; is that right?

10 A Yes, segments of different cables, yes.

11 Q And it's my obligation to put those together in
12 a form and reserve them, in a form that gets me from, if
13 not Commissioner Deason's house, how about Commissioner
14 Jacobs' house. This is going to create the continuous
15 loop from my central office collocation space to the
16 Commissioner's house, right?

17 A Yes.

18 Q Okay. When I'm looking at those facilities,
19 they're just the facilities, right? It's just copper or
20 just fiber; it is what it is.

21 A That's my understanding. You're starting to get
22 into an area way beyond my expertise, but --

23 Q Okay. Well, you let me know if we get there,
24 how about that?

25 A Okay.

1 Q Now, it's just a loop when I'm looking at it in
2 an LFACS, right?

3 A Yes.

4 Q It doesn't have a label on it, correct?

5 A What do you mean by a label?

6 Q I mean, it's not labeled ADSL, so you get these
7 provisioning things with it or it's not labeled SL1, so
8 you don't get these special bells and whistles; it's just
9 a record of what goes from my collo space out to my
10 customer premise.

11 A There is a designator in LFACS. This actually
12 came up in the deposition. I further checked into it.
13 There is a designator in LFACS that's referred to as an
14 OEC, it stands for Outside Plant Equivalency Code, that
15 does have a hierarchy type approach to try to say what
16 different loop facilities are able to transmit based on
17 their technical characteristics. And then, there's a
18 translation table of sorts built to translate that back in
19 that loop, deliver ADSL versus HDSL or is it just
20 unbundled copper short or long, based on those technical
21 parameters. So, that type of information is resident in
22 LFACS.

23 Q Okay. And I can use that or I cannot use that.
24 I guess, the point I'm trying to make is -- or trying to
25 ask you about is the loop is a certain length, right, and

1 that will be reflected into LFACS?

2 A Yes.

3 Q The loop will either have load coils or it won't
4 have load coils, right?

5 A Yes.

6 Q It will either have excessive bridge tap or it
7 will not, right?

8 A Yes.

9 Q And it will either be all-copper or it won't?

10 A Certainly.

11 Q Okay. So, if I believe, in my expertise as the
12 DSL provider, that I've identified the loop to Mr. Jacobs'
13 house, Commissioner Jacobs' house, and it is those things,
14 it is 15,000 feet, it has no load coils, it has no
15 excessive bridge tap, it is all-copper, okay?

16 A Okay.

17 Q I've identified. Now, you'll agree with me that
18 every loop in LFACS is an SL1 loop at the very minimum?

19 A Starting to get into that beyond my expertise,
20 but that sounds reasonable, yes.

21 Q Okay. Now, that loop may also be considered by
22 BellSouth, in its own labeling, as an ADSL loop.

23 A Based on the definition, the product definition,
24 for ADSL, yes.

25 Q Or it may be considered a UCL loop.

1 A If it meets that product definition criteria,
2 yes.

3 Q Okay. But I've already checked in LFACS and
4 I've already decided that I've found the loop that I want
5 to use, okay? So, if I understand your conversation with
6 Mr. Bressman, I cannot reserve that as an SL1 loop and
7 order and put my DSL on it.

8 A That is correct.

9 Q I have to buy that loop, that same loop that
10 I've identified as an ADSL loop or a UCL loop, right?

11 A Under today's design, that's correct. I
12 mentioned that there's another phase coming out that would
13 just give you a POTS facility loop.

14 Q I also understood you to say you couldn't
15 guarantee when that would come, so I'd like to talk about
16 what we know is here.

17 A That's fine.

18 Q Now, are you familiar with the cost difference
19 between the SL1 loop and the ADSL loop?

20 A No, not really.

21 Q Okay. Well, I have Mr. Varner's testimony here,
22 but would you agree, subject to check, that the SL1 loop
23 is an \$83 nonrecurring?

24 A Certainly.

25 Q And would you agree with me that the ADSL loop

1 is a \$258 nonrecurring?

2 A Subject to check, certainly.

3 Q Okay. If you were a DSL provider, and you had
4 just done the entire loop makeup check that I just took
5 you through, which of those loops would you prefer to
6 order?

7 A Well, I don't think I can put myself in that
8 position, because there's too many unknowns there. I
9 would want to make sure I order the loop that's going to
10 give the service to my customer.

11 Q And, I believe, I've already identified that
12 loop.

13 A Then, you're going to make that decision.

14 Q Correct, I would love to.

15 A So, I don't understand the question.

16 Q But I would not be able to do it with the
17 BellSouth system; is that correct?

18 A You're going to be able to make that decision
19 based on the way I described the system, which was from
20 its initial design based on giving you offerings that's
21 intended to meet the criteria of what you would be offered
22 from an ADSL versus HDSL.

23 Q But I can't reserve it as an SL1 and buy it at
24 that price?

25 A That's correct.

1 COMMISSIONER JABER: Mr. Pate, is that because
2 of something from a technological standpoint in the system
3 or is that because of a decision BellSouth has made.

4 THE WITNESS: That was more of a decision, just
5 in initial design work. We just took that step thinking
6 that was what would be wanted. Frankly, as we started to
7 meet with the ALEC community, we were able to get that in
8 place. And after having some industry forum meetings and
9 understanding some other issues such that, as Ms. Boone
10 has described, and maybe they want to buy another loop,
11 and maybe they want to even then go ahead and condition
12 that loop, because what we did is we put in the technical
13 parameters to say this qualifies for this, and so you
14 don't have to condition that. So, it's just a decision
15 from a design standpoint.

16 COMMISSIONER JABER: Let me understand what the
17 design standpoint means when you say that. Are you saying
18 that an ALEC cannot say to BellSouth I want an SL1 loop
19 for the provision of DSL service?

20 THE WITNESS: No, ma'am, I'm not saying that.
21 What I am saying is the electronic query that has
22 currently been beta tested does not allow you to get that
23 loop makeup information electronically, specifically, with
24 intent to order an SL1.

25 COMMISSIONER JABER: It won't let you

1 electronically; it can be done manually.

2 THE WITNESS: Yes, ma'am, it can be done
3 manually. And you can still query for unbundled copper
4 loops and get information back, and you can see what's out
5 there, but it doesn't give you the ability to reserve a
6 specific loop at today's time.

7 COMMISSIONER JABER: Okay. So, from a
8 technological standpoint, there's nothing to prevent
9 BellSouth from allowing the ALEC to use the SL1 loop for
10 any purpose they see fit.

11 THE WITNESS: Not that I'm aware of, but I'm not
12 the technical expert in that, but not that I'm aware of.

13 COMMISSIONER JABER: All right. So, when you're
14 talking about design criteria, you're not talking about
15 technological prohibitions, you're talking about decisions
16 that BellSouth has made for itself with respect to what
17 the SL1 loop or any other loop will be used for.

18 THE WITNESS: Yes, ma'am.

19 COMMISSIONER JABER: Okay.

20 THE WITNESS: And that's why this next phase is
21 going beyond to give them the POTS facility loop makeup.

22 BY MS. BOONE:

23 Q Just one or two last questions. If I cannot
24 connect the electronic loop makeup functionality to
25 ordering the type of loop I want to order, how does the

1 loop makeup have any value for me?

2 A Well, you still have the ability to query and
3 get just the information back as to what type of loops are
4 out there. But as we've already discussed in today's
5 design from an SL1, you cannot use that information to
6 specifically reserve a loop. If you see that no value,
7 that's your decision. I still would think that that would
8 give you some value to see the type of loops that are
9 available.

10 Q So, I could see the type of loops and then I
11 could roll the dice and hope I got the one that I looked
12 up?

13 A Yeah, there is no way to reserve that particular
14 loop from the SL1 today.

15 MS. BOONE: Thank you.

16 MR. MELSON: I've got --

17 COMMISSIONER JACOBS: So, what would be the
18 process? Walk me through the process once that happens.
19 How do you get back to that loop to reserve it?

20 THE WITNESS: The process for SL1 loop? Is that
21 what you're asking me, Commissioner?

22 COMMISSIONER JACOBS: Well, with the ALEC having
23 done that, gone through that process and made that
24 identification, what now would be the process that you
25 would prescribe for them to go ahead and secure that?

1 THE WITNESS: Well, they could nonsecure it,
2 specifically, for an SL1. The process is, that they're
3 already aware of, is they can electronically or manually
4 order an SL1 loop for that address, but it does not give
5 them any specific loop. The query just gave them the
6 ability to look at the type of loops that are available,
7 but would not give them a specific one.

8 COMMISSIONER JACOBS: So, are you going to offer
9 them back a menu that they would then select from?

10 THE WITNESS: No, sir. They don't get a menu
11 offered back at that point and time. It's two separate
12 and distinct different functions. If they went and used
13 the LENS or TAG query to actually, without reserving
14 facilities, just query those facilities, they could query
15 up to 10 spare facilities. Then, based on that query --

16 COMMISSIONER JACOBS: They get one of the 10.

17 THE WITNESS -- they would just see, here's 10
18 loops that are out there, give them an idea of what type
19 of facilities are present. Now, when they go and order --
20 if they specifically order an SL1, it's a separate,
21 distinctly separate, process that it would not be
22 connected to those 10 they'd gotten back. At that point
23 and time, they're ordering an SL1 for that address and
24 just ordering it, and they're going to get the facility
25 that LFACS assigns to them. It may be one of those, it

1 may not.

2 COMMISSIONER JACOBS: Okay, thank you.

3 MR. MELSON: I've got less than Ms. Boone did.

4 CROSS EXAMINATION

5 BY MR. MELSON:

6 Q Mr. Pate, I'm Rick Melson representing Rhythms.
7 I think, I talked to you on the phone the other day for a
8 few minutes.

9 A Yes.

10 Q I just wanted to follow-up on one point on Map
11 Viewer. Let me start with the situation, I'm an ALEC, and
12 I want to provide a DSL service. So, the first thing I,
13 do, as Ms. Boone described, is an electronic loop makeup
14 query. And because this is one of the 20% that doesn't
15 have enough information in LFACS for me to make that
16 decision, I don't get back enough information.

17 A Okay.

18 Q Would my logical next step, then, be to order a
19 manual loop makeup from BellSouth?

20 A Yes, it would.

21 Q And the person or work group doing that manual
22 loop makeup in Florida would do that manual loop makeup
23 using Map Viewer; is that correct?

24 A Most likely so. They would access the plat or
25 plats associated and get that loop makeup and information

1 from Map Viewer.

2 Q If I understood correctly, the algorithm in Map
3 Viewer, essentially, does a continuity trace and gives the
4 person whose made the inquiry into Map Viewer, gives them
5 back essentially the same information that I would have
6 got out of LFACS, if LFACS had been populated; is that
7 correct?

8 A That's correct. And it will use that
9 information with your query to populate LFACS.

10 Q Okay. Once the person gets that back, they'll
11 do two things, they'll send it to me and they will use it
12 to populate LFACS so that next time a query is made that
13 information will be in LFACS?

14 A That's correct.

15 Q Second question. Is the information that an
16 ALEC gets, either from that electronic query or from the
17 manual query, essentially, the same information that would
18 be provided if it were to get a designed layout record or
19 DLR?

20 A It should be. I mean, that's the -- what the
21 DLR is about is design the record, and that, yes, should
22 be the same type of information.

23 MR. MELSON: Okay. Thank you very much.

24 MS. McNULTY: Worldcom has no questions.

25 MR. SLOAN: Just got a couple of questions.

CROSS EXAMINATION

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BY MR. SLOAN:

Q Want to review some of your testimony about --
Mr. Pate, excuse me, I'm Michael Sloan representing
Broadslate, Cleartel, and Florida Digital. Good morning.

A Good morning.

Q I'd just like to review your testimony regarding
fallout. If I repeat any questions, please forgive me.

On page 11 of your testimony, you state that BellSouth is
measuring design fallout between 15% and 20%, correct?

A Yes, I see that on page 11, line 11, yes.

Q And when the electronic loop makeup system is
put in place, which I understand will occur first quarter
next year, then, there will be no design fallouts?

A First, let me correct you. The electronic loop
makeup is being beta tested now. So, as soon as that beta
testing is complete, it will be made available to
interested ALECs. So, it won't be next year, it will be
available this year very shortly. Now, with that, please
ask your question again.

Q When the electronic loop makeup system becomes
available to ALECs, there will be no design fallouts?

A The answer to your question is yes, but let me
explain that, because we're talking two different things.

The query for loop makeup information has

1 nothing to do with fallout. Fallout has to do with the
2 order when it's submitted itself. And this release that
3 we have put in place that's being beta tested, loop
4 makeup, electronic query, is one item for that release,
5 but the ability to electronically order that ADSL, HDSL,
6 unbundled copper loop is also part of that release.

7 Q Now, the model assumes 7% design fallout going
8 forward?

9 A Yes. If I can qualify that for you. Once
10 again, when we talked earlier, in some of the earlier
11 discussion, something falls out by design for two reasons;
12 one, it is designed by the type of order to fall out; and
13 the other, there's some criteria layered on top of that,
14 that results in something falling out.

15 I used the two examples, if it's expedited,
16 then, someone has to manually intervene or if you do a
17 loop order for 16 or more loops, all of those are going to
18 fall out. So, there's several criteria that you have to
19 be aware of. Assuming none of that criteria comes into
20 place, then those orders will flow through. They will not
21 fall out.

22 Q Right. And you said earlier you don't know how
23 often those criteria will come into play; is that correct?

24 A No one can predict that. I mean, it depends on
25 whether those things are -- and this is talking about not

1 just ADSL, HDSL, unbundled copper loops, this is talking
2 about all unbundled network elements.

3 Q And you have not tried to measure that, given
4 your past experience?

5 A Yes, we have. That's what I said. And that's
6 what these figures on line 11, that 15.8 to 20.4, is
7 coming from. It is, specifically, from unbundled network
8 element orders submitted for that time period. That data
9 -- we started to disaggregate that data so you could look
10 at it that way starting in January of 2000. So, now I get
11 a monthly report that reflects the fallout rate for
12 unbundled network elements as an overall category.

13 Q What is the fallout rate of the ALECs that are
14 beta testing the system?

15 A I don't have any information on that yet.
16 There's only been a small amount of orders submitted from
17 two particular ALECs. We have 6 participating. And from
18 my understanding, the orders they've submitted, based on
19 the test-case scenarios, they're all working. But all
20 working is about all I can tell you. I don't have anymore
21 fine-tuned data than that. We haven't looked at it from a
22 fallout. What I mean by all working, that order was
23 accepted, it did go to the SOCS system, meaning, it did
24 flow through.

25 Q So, when you say it was accepted, does that mean

1 there was no ALEC-created error in placing the order?

2 A Well, as looking at the tests that they've
3 submitted, there have been errors. And then, we submit it
4 back, and that gets corrected. So, what I'm saying is
5 once that local service request, or in this case, the test
6 cases and the beta testing, once that is a complete and
7 accurate request and it gets submitted, it's flowing
8 through to the SOCS system for downstream provisioning.

9 Q One last question about ALEC-created errors that
10 lead to fallout, which appears on page 12 of your
11 testimony, you state that the error rate for ALECs was
12 13.6% in July?

13 A Yes, I see that on lines 19 and 20 of page 12.

14 Q At the top on line 1 and 2 of the same page, you
15 say, "The reason for the system not automatically
16 returning these is that the error may be the result of
17 BellSouth's systems." Do you see that?

18 A Yes.

19 Q And so, as a result of your assumption about the
20 BellSouth-created errors, you've selected a 3% error rate
21 for ALEC-created errors; is that correct?

22 A Yes. That 3% rate was based on the data we had
23 for 1999, which was a compilation for both resale and
24 unbundled network elements. So, based on that
25 information, we did some forecasts, and we used that for

1 this study as well.

2 Q And you went in, and you looked at the data and
3 determined the errors that were created as a result of
4 your systems as opposed to those which were the product of
5 ALEC errors?

6 A Yes, that's correct. And let's make sure we
7 understand, when we talk about errors, there's two types
8 of errors.

9 There's one error, which is not included here
10 that the system automatically clarifies, automatically
11 sends that back. These are the errors where the system
12 does not automatically send it back, because the error has
13 potential to be a result of the ALEC input or a result of
14 the BellSouth systems, and it takes someone to manually
15 look at that input and make that determination. That's
16 the focus of the errors we're talking about here.

17 Q And the LSR order screen would not identify the
18 ALEC input in those cases?

19 A In those cases, it does not identify the input
20 as the result of the error. Where we're able to, with a
21 99% or 100% confidence say it's the result of the input of
22 the ALEC, we put the system -- from a technical term, we
23 turn the switch on to have the system send that back
24 electronically. So, it's when we don't have that level of
25 certainty requires a representative in the local carrier

1 service center to take a look at that input.

2 MR. SLOAN: Thank you. No further questions.

3 MR. FONS: Sprint has no questions.

4 CHAIRMAN DEASON: Staff?

5 MS. CALDWELL: Staff has no questions.

6 CHAIRMAN DEASON: Redirect?

7 MS. WHITE: Yes, just a little bit.

8 REDIRECT EXAMINATION

9 BY MS. WHITE:

10 Q Mr. Pate, plats are what's available via Map
11 Viewer; is that correct?

12 A That is correct.

13 Q And do plats contain more than just the loop
14 makeup information?

15 A Oh, most definitely. Plats is the whole
16 infrastructure, all the facilities that we have out there,
17 what runs into what buildings. It's everything BellSouth
18 has captured on that one instrument, the plat.

19 Q Now, does loop makeup information -- can you
20 place an order without using loop makeup information?

21 A Yes, but it would have to have a service inquiry
22 associated with it.

23 Q Okay. Can you use loop makeup information or
24 you can access LFACS and never end up placing an order?

25 A The electronic queries that access LFACS get

1 information so you can use it to place the order, yes.

2 Q Now, in connection with a question that
3 Commissioner Jaber asked you, I just want to make sure I
4 understand. An ALEC can order an SL1 from BellSouth and
5 use it for whatever purpose they want to use it for; is
6 that right?

7 A I'm not the true expert to deal with that.
8 You'd have to ask someone who is more the product
9 management, but an SL1, and that product manager would
10 have to speak to it, an SL1 is an SL1. I don't know what
11 limitations we place on it, but we do just say it's a
12 voice-grade SL1.

13 If you're trying to expect to do something
14 beyond that, then you're fooling yourself. We tell you
15 what the technical parameters are, the transmission
16 characteristics. I'm just not the expert to speak on the
17 details of that.

18 Q But you cannot reserve an SL1 through electronic
19 access to LFACS, correct?

20 A That's correct.

21 Q Okay. Now, is the fallout percentage applied on
22 a loop type basis, like ADSL, or is it applied to all
23 loops?

24 A It's applied to all unbundled network elements,
25 which loops is one, but anything that's called an

1 unbundled network element -- port would be an unbundled
2 network element, it applies to all those.

3 COMMISSIONER JABER: Ms. Sims?

4 MS. WHITE: Sure, go ahead.

5 COMMISSIONER JABER: Ms. White.

6 MS. WHITE: White. The other one.

7 COMMISSIONER JABER: Why can't you reserve an
8 SL1 loop electronically?

9 THE WITNESS: We have not built the ability to
10 do that, to reserve an SL1 loop electronically. This next
11 phase could incorporate that. I'm not sure if it
12 specifically does, frankly.

13 COMMISSIONER JABER: But it's not that -- I come
14 back to the advent of technology. It's not that you, from
15 a technology standpoint, can't do it, BellSouth hasn't
16 done it.

17 THE WITNESS: BellSouth has not done it. I'm
18 not aware of any technology barriers. There may be. I'm
19 not aware of any. I'd have to go back to the person that
20 worked at that level of detail. And we have not received
21 a request from either CLECs or ALECs, excuse me, to do
22 such through our change control process as well.

23 But when we have had many industry forums. I'm
24 sure this has probably been a topic of discussion. I
25 don't know, I don't attend the specific meetings. So, to

1 answer your question, it's just not in the current design.

2 BY MS. WHITE:

3 Q But do you need to do loop makeup in order to
4 order an SL1?

5 A No.

6 Q Okay. So, you can order an SL1 without
7 reserving it --

8 A That's right.

9 Q -- in LFACS.

10 A An SL1 is not a designed loop. You don't need a
11 service inquiry, you don't need loop makeup information.

12 Q Now, just to make sure everyone in the room
13 understands, Mr. Bressman asked you several questions
14 about the loop qualification cost study. Are you the cost
15 study expert in this proceeding?

16 A No, I'm not.

17 Q And who is the cost study expert for BellSouth
18 in this proceeding?

19 A Ms. Caldwell.

20 MS. WHITE: Thank you. That's all I have. May
21 Mr. Pate be excused?

22 CHAIRMAN DEASON: Yes, he may.

23 (Witness excused.)

24 CHAIRMAN DEASON: We have one exhibit
25 identified, 115?

1 MR. BRESSMAN: I'm sorry, Mr. Chairman, I didn't
2 hear your question.

3 CHAIRMAN DEASON: 115, do you move it into
4 evidence?

5 MR. BRESSMAN: Yes, I'd like to move that into
6 the record.

7 MR. BRESSMAN: And, I think, I'd also like to
8 move into the record 116, just to avoid confusion. That's
9 the confidential loop qualification database cost study.

10 CHAIRMAN DEASON: I'm sorry, I don't have a
11 record of identifying a 116.

12 MR. BRESSMAN: I'm sorry, do I have the number
13 wrong? Yeah, I had not asked you to identify it, I'm
14 sorry. I'm now asking can we identify that and make that
15 a separate exhibit to avoid confusion?

16 CHAIRMAN DEASON: Okay. This is the
17 confidential exhibit, correct?

18 MR. BRESSMAN: Right.

19 CHAIRMAN DEASON: Okay. You wish to have it
20 identified as 116.

21 MR. BRESSMAN: As a confidential exhibit,
22 correct.

23 CHAIRMAN DEASON: And you also wish to move it.
24 Is there any objection to Exhibits 115 or 116? Hearing no
25 objections, show then that both exhibits are admitted, and

1 we will note that Exhibit 116 is a confidential exhibit.

2 (Exhibit 115 admitted into the record, and
3 Exhibit 116 marked for identification and admitted into
4 the record.)

5 MR. BRESSMAN: Mr. Chairman, do you want us to
6 take back copies of all 116, except for the court
7 reporter's?

8 CHAIRMAN DEASON: Yes, please.

9 MR. BRESSMAN: Thank you.

10 CHAIRMAN DEASON: We will take a 10-minute
11 recess, and then we'll take the next witness.

12 (Recess taken.)

13 CHAIRMAN DEASON: BellSouth, you may call your
14 next witness.

15 MR. EDENFIELD: BellSouth calls William H.B.
16 Greer.

17 WILLIAM H.B. GREER

18 was called as a witness on behalf of BellSouth
19 Telecommunications, Inc. and, having been duly sworn,
20 testified as follows:

21 DIRECT EXAMINATION

22 BY MR. EDENFIELD:

23 Q Mr. Greer, will you confirm that you were
24 previously sworn?

25 A Yes, I will.

1 Q You might want to pull that microphone, bend it
2 down just a little bit closer to you and lean forward so
3 we can --

4 A Yes, I will.

5 Q Okay. State your name and position, for the
6 record, please.

7 A I'm William H.B. Greer. I'm a staff manager for
8 BellSouth Telecommunications.

9 Q Are you the same William H.B. Greer that caused
10 to be filed in this proceeding 24 pages of rebuttal
11 testimony?

12 A Yes, I am.

13 Q Do you have any changes to that testimony?

14 A Yes, I do.

15 Q Please give me the changes, and go slow enough
16 so that we can make them as we go along.

17 A On Page 1, Line 23, add the phrase, "and Mark
18 Stacy," after the phrase, "McPeak."

19 On Page 4, Line 9, change the word "loop" to
20 "circuit" and delete the word "reengineered."

21 On Page 5, Line 25, change DDAS to DDS.

22 On Page 13, Line 17 and 18, delete the phrase,
23 "loop service form with number portability."

24 On Page 18, Line 10, insert the phrase:
25 "trouble resolution at the cross box" between the words

1 "cross box" and the phrase, "30% of the time."

2 On Page 23, Line 17, change the word, "ADSL" to
3 "its data."

4 COMMISSIONER JABER: What was the last change,
5 Mr. Greer?

6 THE WITNESS: On Page 23, Line 17, the word
7 "ADSL" should be changed to "its data."

8 MR. EDENFIELD: And we do have an errata sheet,
9 but we forgot to get it copied. We'll do that at lunch
10 and pass out copies, in case somebody didn't get the
11 changes.

12 BY MR. EDENFIELD:

13 Q Are there anymore changes to your testimony,
14 Mr. Greer?

15 A No, there is not.

16 Q If I were to ask you the questions that appear
17 in your testimony today, would your answers be the same?

18 A Yes, it would.

19 MR. EDENFIELD: At this time, we would move
20 Mr. Greer's rebuttal testimony into the record as if read.

21 CHAIRMAN DEASON: Without objection, it shall be
22 so inserted.

23 BY MR. EDENFIELD:

24 Q Were there any exhibits to your testimony?

25 A No, there are not.

1 BELL SOUTH TELECOMMUNICATIONS, INC.
2 REBUTTAL TESTIMONY OF WILLIAM H. B. GREER
3 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4 DOCKET NO. 990649-TP
5 (PHASE II)
6 AUGUST 21, 2000
7

8 Q. PLEASE STATE YOUR NAME, YOUR BUSINESS ADDRESS, AND
9 YOUR POSITION WITH BELL SOUTH TELECOMMUNICATIONS,
10 INC. ("BELL SOUTH").
11

12 A. My name is William H. B. Greer. My business address is 675 West
13 Peachtree Street, Atlanta, Georgia 30375. I am a Staff Manager in
14 BellSouth's Transmission Engineering group in the Network Planning
15 and Support organization. I have served in my present role since
16 August 1990, and I provide technical support regarding transmission
17 engineering issues to various BellSouth entities.
18

19 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY BEING FILED
20 TODAY?
21

22 A. In my testimony, I will provide rebuttal to the testimony of intervenor
23 witnesses Messrs. Steven McMahon (SPRINT), Eric McPeak and Mark Stacy
24 (Broadslate Networks, Inc., Cleartel Communications, Inc., Florida
25 Digital Network, and Network Telephone Co. ("The Coalition"), Joseph

1 Riolo (BlueStar Networks, Inc. ("BlueStar"), Covad Communications
2 Co. ("Covad"), and Rhythms Links, Inc. ("Rhythms")), and Ms. Terry
3 Murray (BlueStar Networks, Inc. ("BlueStar"), Covad Communications
4 Co. ("Covad"), and Rhythms Links, Inc. ("Rhythms")). I will address
5 issues in the following areas: Unbundled Loop Modification (ULM),
6 xDSL compatible loops, and nonrecurring work times.

7
8 **Unbundled Loop Modification (ULM)**

9 Q. ON PAGE 11 OF HIS TESTIMONY, MR. McMAHON SUGGESTS
10 THAT BELLSOUTH ONLY ASSUMES THAT TEN (10) PAIRS AT A
11 TIME WOULD BE CONDITIONED FOR LOAD COIL REMOVAL
12 WHEREAS SPRINT ASSUMES THAT A MINIMUM OF 25 PAIRS, OR
13 AN ENTIRE BINDER GROUP, WOULD BE CONDITIONED AT ONE
14 TIME. MR. McMAHON STATES HIS BELIEF THAT THIS IS
15 INCONSISTENT BECAUSE BELLSOUTH'S SERVING AREA IS
16 MORE DENSELY POPULATED THAN SPRINT'S AND THUS USES
17 LARGER CABLE SIZES. PLEASE COMMENT.

18
19 A. BellSouth's load coil removal assumption is consistent with BellSouth's
20 practice, which is to remove load coils on average from 10 pair at one
21 time. There are a number of considerations for not unloading large
22 complements of pairs at one time (as suggested by Sprint) which
23 include:

- 24 ● Load coils are commonly used to improve voice grade
25 transmission for copper loops longer than 18 kilofeet (Kft).

1 However, BellSouth also has installed load coils for loops
2 shorter than 18 Kft for reasons I will set out below. The majority
3 of BellSouth's network is used to provide services that only
4 require voice grade transmission levels. Two points of loading,
5 or more, are an acceptable (and sometimes preferable) way to
6 provide some voice grade special service circuits.

7 • The presence of load coils on loops as short as 15 Kft reduces
8 the attenuation loss to some degree but more importantly
9 improves the attenuation distortion. It is for this reason that in
10 metropolitan areas many loops as short as 12 Kft are loaded in
11 order to improve the transmission characteristics for Centrex
12 lines and for PBX trunks.

13 • The churn in Outside Plant Engineering (OSPE) facilities has
14 spread working loop feeder pairs throughout the entire
15 complement of available pairs. In other words, there are few
16 "clean" loop feeder cable pair counts (01 to 50 or 75 to 100, for
17 example) that are all spare and that can have load coils
18 removed from all pairs at one time without adversely affecting
19 service.

20 • Mr. McMahon's assumption appears to be that all loops are
21 used to provide Plain Old Telephone Service (POTS) voice
22 grade service. This assumption is invalid since BellSouth's
23 loops are used to provide both POTS and special services.
24 Thus, many of BellSouth's loops are used for designed circuits.
25 The design process specifically accounts for the fact that the

1 loop has load coils in order to meet transmission requirements.
2 Simply removing load coils will result in poor customer service
3 unless the loop is redesigned and re-engineered to account for
4 the lack of load coils, or unless the end user's service is moved
5 to another similarly loaded loop. In some cases, the end user
6 will perceive a reduction in the quality of service after the load
7 coils are removed. In other cases, such as with analog data
8 services, the loop with its load coils removed would not function
9 at all until the ~~loop~~^{circuit} is redesigned and ~~re-engineered~~ or until the
10 service is moved to a similarly loaded loop.

- 11 • Generally, in order to achieve the removal of all load coils for an
12 entire complement of cable counts, existing working service
13 would have to be moved to similarly loaded loop before the load
14 coil removal work could commence. These moves to similarly
15 loaded loops would require dispatches of technicians to rerun
16 jumpers in the BellSouth central office and also in the crossbox
17 in the field, which would entail considerable expense. Also,
18 obtaining a release from the end user on what the customer
19 would consider to be a critical circuit (analog data, or off-
20 premise station for example) would incur even more time and
21 effort as well as customer inconvenience.

22
23 To summarize, load coils cannot simply be removed from loops that
24 are currently in service to customers when such loops were originally
25 designed taking into account the inclusion of a load coil for proper

1 transmission performance.

2

3 Q. ARE THERE OTHER REASONS THAT MAKE IT INFEASIBLE TO
4 UNLOAD 25 OR EVEN 50 PAIR AT ONE TIME, AS MR. McMAHON
5 AND MR. RIOLO PROPOSE?

6

7 A. Yes. BellSouth's loop plant must accommodate both POTS services
8 and special services, including digital services. At any given crossbox
9 there are only three possible loop provisioning scenarios: (1) all loops
10 are served entirely over copper; (2) all loops are served by Digital Loop
11 Carrier (DLC) or; (3) some loops are served by the first method
12 (copper) while the remaining loops are served by the second method
13 (DLC). All loop feeder pairs in a given crossbox must be capable of
14 serving any loop distribution pair in that crossbox. As such, the feeder
15 pairs must be uniform. If the design of the distribution area requires
16 loaded pairs (that is, the longest loop served by that crossbox will be
17 longer than 18Kft), then the entire feeder complement will be loaded.

18

19 Sometimes a small complement of unloaded facilities is available in the
20 crossbox. In that instance, some pairs in the crossbox were
21 specifically unloaded for the express purpose of putting digital services
22 on them. Not all of BellSouth's crossboxes have this situation where
23 both loaded and nonloaded pairs are present. Generally, BellSouth
24 only provisions these unloaded pairs if there is a demand for digital
25 services such as DS1, ISDN, or ~~DDAS~~ in the area served by that

DDS

1 crossbox. Obviously, since before the advent of DSL services one
2 would not have expected demand for digital services in residential
3 areas, most crossboxes serving such areas do not have both loaded
4 and unloaded pair complements. In the case of ISDN, where the
5 serving crossbox has both copper loops and loops served via DLC, the
6 ISDN service is normally provisioned via DLC, and the loops are not
7 unloaded.

8

9 Q. ON PAGE 23 OF HIS TESTIMONY, MR. McMAHON STATES THAT
10 BELLSOUTH DOESN'T PROVIDE ANY EXPLANATION AS TO WHY
11 ITS COST MODEL ASSUMES THAT 2.1 LOAD COILS WOULD
12 EXIST. HE SUGGESTS THIS IS INCONSISTENT WITH STANDARD
13 OUTSIDE PLANT (OSP) ENGINEERING RULES THAT THE
14 DISTANCE FROM THE LAST LOAD COIL TO THE END USER BE
15 NOT LESS THAN 3,000 FEET. PLEASE COMMENT.

16

17 A. First of all, Mr. McMahan is mistaken in his statement that OSP
18 engineering rules prohibit load coils within 3 kft of the end user. To the
19 contrary, OSP engineering rules allow the distance from the load coil to
20 the end user to be as little as 0.1 kft (that is, 100 feet) if 3 kft of bridged
21 tap is present at that point on the loop. See, for example Bell System
22 Practices, Addendum 902-115-101SB, Issue B, October 1975, which
23 provides "minimum end section plus bridged tap for loaded loops is 3
24 kft." [Emphasis added.] The bridged tap allows proper transmission
25 performance since the capacitance of the bridged tap section

1 equalizes the load coil inductance for customers less than 3 kft from
2 the load coil. Thus, there are instances where a loop of less than 18
3 kft will have three load coils installed. Installed load coils are spread
4 over the loop such that overall transmission performance parameters
5 are achieved.

6

7 Q. PLEASE SUMMARIZE BELL SOUTH'S RATIONALE THAT 2.1 LOAD
8 COILS, ON AVERAGE, ARE PRESENT.

9

10 A. For loops of less than 18 kft, if the loop is loaded, 90% of the time it will
11 have two load coils and 10% of the time it will have three load coils.
12 As explained above, Mr. McMahon is incorrect that loops between 15
13 kft and 18 kft cannot have a third load coil. The network is designed
14 and constructed assuming a "worst case" regarding loop length within
15 a serving area. For instance, a third load coil may be required on
16 feeder pairs within 18 kft of the central office to serve customers who
17 are located 21 kft from the central office. Thus, it is not unusual to
18 have customers within 18 kft of the central office using loops that have
19 three load coils so that other customers beyond 18 kft from the central
20 office, who are served over that same complement of loop facilities, will
21 also enjoy proper transmission performance.

22

23 Q. ON PAGE 9 OF HIS TESTIMONY, MR. McMAHON STATES THAT
24 SPRINT'S COST MODEL ALLOCATES A TOTAL TRAVEL TIME OF
25 18 MINUTES PER LOOP CONDITIONING JOB. PLEASE

1 COMMENT.

2

3 A. First, I note that BellSouth assumes average travel times for both
4 unbundled loops and Unbundled Loop Modification (ULM). BellSouth
5 assumes 30 minutes for travel time associated with ULM regardless of
6 loop length and 20 minutes travel time for xDSL compatible loops as
7 well as SL1 and SL2 loops. The ULM work is performed by
8 BellSouth's outside plant construction forces, while unbundled loops
9 are installed by BellSouth's Installation and Maintenance (I&M) or
10 Special Services Installation and Maintenance (SSI&M) groups
11 working in conjunction with BellSouth's central office work group.
12 Because there are generally fewer outside plant construction groups
13 than I&M groups in a particular geographic area, outside plant
14 construction groups have to travel greater distances, which explains
15 the difference in travel times.

16

17 Q. PLEASE EXPLAIN WHAT FACTORS INFLUENCE AVERAGE
18 TRAVEL TIMES.

19

20 A. Travel times are influenced by many factors such as traffic congestion,
21 weather, and the distance one has to travel to the site in question.
22 Further, it is my understanding that DSL competition is materializing in
23 larger metropolitan areas first. BellSouth serves many of the
24 metropolitan areas in Florida such as Jacksonville, Orlando, Fort
25 Lauderdale and Miami. Thus, BellSouth's proposed travel times

1 recognize its experience in serving such areas. If Mr. McMahon
2 assumes that the distance from the BellSouth work center (from which
3 the technician is dispatched) to where the work is performed is the
4 same as the distance from the BellSouth central office to the work
5 location, he is mistaken. Thus, determining average travel times is not
6 as simplistic as Mr. McMahon makes it appear.

7

8 Q. PLEASE EXPLAIN BELLSOUTH'S RATIONALE FOR ITS
9 ASSUMPTION THAT LOAD COIL REMOVAL INVOLVES 90%
10 UNDERGROUND AND 10% AERIAL/BURIED PLANT
11 DISTRIBUTION.

12

13 A. BellSouth's rationale is based on the fact that, in metropolitan wire
14 centers, the plant is predominantly built underground in the area close
15 to the central office. The vast majority of BellSouth's central offices
16 serving metropolitan areas have underground structures (conduits,
17 etc.) for the placement of large underground cables and associated
18 load coils. Smaller, rural central offices (that is, central offices not in
19 metropolitan areas) do use aerial or buried facilities directly from the
20 central office. Because competition for DSL services is developing first
21 in metropolitan areas, most of the work involved with conditioning
22 loops for xDSL will be in metropolitan settings and will involve
23 predominantly underground facilities. Certainly that has been
24 BellSouth's experience to date.

25

1 In those instances where there are only two load coils, which is ninety
2 percent (90%) of the time, both load coils will fall within 9 kft of the
3 central office and will, generally, be placed in underground facilities.
4 Even if there is a third load coil located within 15 kft of the central
5 office, this load coil will likely be placed, as well, in underground
6 facilities in metropolitan settings.

7

8 Q. MR. McMAHON SUGGESTS ON PAGE 17 OF HIS TESTIMONY
9 THAT VIRTUALLY ALL BRIDGED TAP REMOVED WOULD BE
10 DONE IN AERIAL OR BURIED CABLE. DO YOU AGREE?

11

12 A. No. Bridged tap allows for greater utilization of the loop facilities and
13 enhanced network flexibility by having the same cable pair appear at
14 more than one service address. BellSouth assumes that an average of
15 three bridged taps will be removed, one of which would be in the
16 underground facilities. Here again, BellSouth's rationale recognizes
17 that competition for xDSL services in its region has developed first in
18 metropolitan areas where the use of underground facilities is the norm
19 rather than the exception.

20

21 Q. MR. McMAHON FURTHER ADVOCATES THAT CUTTING OFF THE
22 PAIR AT THE SERVICE TERMINAL AT THE TIME xDSL SERVICE IS
23 INSTALLED WOULD ELIMINATE THE NEED FOR BRIDGED TAP
24 REMOVAL. PLEASE COMMENT.

25

1 A. While I cannot speak for Sprint, cutting off the cable pair at the serving
2 terminal at the same time xDSL service is installed is not common
3 practice at BellSouth because it results in the destruction of the
4 continuity of the cable pairs in the network beyond that point. This
5 results in the extended part of the cable being unusable unless, at
6 some time in the future, work is done to reattach the section Mr.
7 McMahan advocates be cut off. Cable pairs generally have
8 appearances in multiple serving terminals along a route. Even Mr.
9 McPeak agrees that this provides for serving flexibility and efficiency
10 (McPeak at page 7, line 14 and page 10, line 14). The cable records
11 reflect these capabilities. If cable pairs were cut off at a given service
12 terminal, the overall capability of the network would be impaired,
13 records would no longer be accurate, and additional dispatch costs
14 would be incurred to re-establish cable continuity associated with
15 subsequent service order activity. Factors such as loss (attenuation),
16 noise, length of bridged tap and location of bridged tap impact overall
17 transmission performance. Further, cutting the pair off beyond the
18 serving terminal is not always necessary to qualify a circuit for xDSL
19 service.

20
21 Q. ON PAGE 57 OF HER TESTIMONY, MS. MURRAY SUGGESTS
22 THAT THE SERVICE INQUIRY FUNCTION IS ALSO A SEPARATE
23 UNBUNDLED NETWORK ELEMENT THAT CARRIERS COULD
24 REQUEST IF DESIRED. SHE CONCLUDES THAT THE INCLUSION
25 OF THAT FUNCTION IN THE LOOP INSTALLATION COST WILL

1 NECESSARILY RESULT IN FORCING SOME CARRIERS TO PAY
2 TO HAVE THE SAME SERVICE INQUIRY DONE TWICE, AND SHE
3 SUGGESTS THAT COSTS FOR THE SERVICE INQUIRY FUNCTION
4 SHOULD BE ENTIRELY REMOVED. MR. RIOLO MAKES THE
5 SAME ARGUMENT. PLEASE COMMENT.

6

7 A. BellSouth's filing on August 16, 2000, reflects a service inquiry process
8 for loop makeup and loop reservation activities, both manual and
9 electronic. As described in greater detail by BellSouth witness Mr. Ron
10 Pate, these processes allow the ALEC to obtain loop makeup
11 information and to reserve facilities for its xDSL type services. When
12 the ALEC requests loop makeup or loop reservation and then requests
13 a loop over which it will provision xDSL services (in that order), the
14 work activities that have taken place previously during the loop
15 makeup and loop reservation process are not included. This would
16 apply to the following loop types: Unbundled Copper Loop - Long,
17 Unbundled Copper Loop - Short, ADSL-compatible, and HDSL-
18 compatible. Additionally, in loop modification, BellSouth recognizes
19 the efficiencies associated when ULM and an xDSL loop are ordered
20 at the same time.

21

22 Q. MR. RIOLO SUGGESTS THAT THE CRSG AND LCSC WORK TIMES
23 SHOULD BE ELIMINATED OR REDUCED. DO YOU AGREE?

24

1 A. No. First, the work activities that are at issue here occur only when
2 BellSouth performs the Service Inquiry function. In other words, when
3 an ALEC performs Loop Makeup for itself, neither the CRSG nor the
4 LCSC perform service inquiry functions with respect to the loop.
5 Second, in advocating that Service Inquiry should take only 30
6 minutes, Mr. Riolo's testimony only describes some of the work
7 functions performed by the CRSG and the LCSC. The CRSG is an
8 extension of the Account Team and is the customer advocate within
9 BellSouth. Some of the additional functions that were not detailed in
10 Mr. Riolo's testimony include: (1) serving as the first point of contact for
11 ALECs ordering certain UNE types; (2) providing information on
12 service availability; (3) researching ALEC agreements to ensure that
13 the services the ALEC orders are included in the agreement and
14 advising the ALEC of any needed amendments to provide those
15 desired services; and (4) providing guidance to the ALEC on
16 completing the required documentation for desired UNEs (SIs and
17 LSR, End User form, Loop Service form, ~~Loop Service form with~~
18 ~~Number Portability~~).

19
20 The service representatives in the LCSC review the SI and the LSR
21 from the CRSG/Account Team and then validate the information
22 contained on these forms. This involves a time consuming process of
23 accessing numerous databases and checking various input fields.
24 Additionally, if the SI or the LSR contains an error, the service

1 representative must clarify the problem and work with the ALEC to
2 resolve it.

3

4 In short, the work activities of the CRSG and the LCSC are not nearly
5 as limited as Mr. Riolo suggests. Thus, Mr. Riolo's proposed Service
6 Inquiry time of 30 minutes is without merit. Equally without merit is Mr.
7 Riolo's proposal that Service Inquiry will take place on only 10% of
8 orders. I can find nothing in Mr. Riolo's testimony to support this
9 assumption, which is also inconsistent with the notion that these
10 activities are performed 100% of the time when BellSouth must
11 perform the Service Inquiry function.

12

13 Q. ON PAGES 30 AND 31 OF HIS TESTIMONY, MR. RIOLO
14 PROPOSES VARIOUS ADJUSTMENTS TO BELLSOUTH'S
15 WORKTIMES FOR BELLSOUTH'S XDSL OFFERINGS. DO YOU
16 AGREE WITH MR. RIOLO'S PROPOSED ADJUSTMENTS?

17

18 A. No. Mr. Riolo follows the same categories of major work activities that
19 BellSouth used in its cost studies: Service Inquiry, Engineering, and
20 Connect and Test (which is reflected as UNEC, WMC, CO I&M, SSI&M
21 (Outside Plant) in Mr. Riolo's testimony). Interestingly, Mr. Riolo does
22 not propose that the Commission disallow the involvement of these
23 various work centers in the UNE ordering and provisioning process,
24 except for the WMC. I have already addressed the activities

1 associated with Service Inquiry and will now address the remaining
2 activities described by Mr. Riolo.

3

4 Q. WHAT ENGINEERING WORK ACTIVITIES ARE INVOLVED IN THE
5 INSTALLATION OF XDSL LOOPS?

6

7 A. Engineering includes work activities in the following work groups or
8 centers at BellSouth: the Service Advocacy Center ("SAC"), the
9 Address and Facility Inventory Group ("AFIG"), and the Circuit
10 Provisioning Group ("CPG").

11

12 The SAC is involved with outside plant engineering investigation of the
13 loop makeup and availability. The activities performed by the SAC
14 include obtaining LMU from the engineer, inputting LMU into LFACs,
15 and reserving the facility. Because the work functions performed by
16 the SAC are highly mechanized for the most part, it is assumed that
17 the manual efforts by the SAC will occur only 10% of the time.

18

19 The AFIG performs the following work activities: (a) investigates for
20 errors; (b) contacts the appropriate organization, such as the LCSC, to
21 correct any errors (which generally involves incorrect collocation
22 information provided by the ALEC); and (c) ensures that the collocation
23 information returned on the order has been built into BellSouth's
24 systems. BellSouth assumes that the AFIG will be involved only 30%
25 of the time.

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Finally, the CPG is involved when the ALEC's order falls out for manual handling (which is assumed to be only 15% of the time). The CPG is responsible for designing a circuit and generating the necessary documentation in TIRKS.

Mr. Riolo does not question the work times assumed by BellSouth for engineering work in the SAC, the AFIG, and the CPG (other than with respect to his issue about nondesigned versus designed circuits, which is discussed below. However, Mr. Riolo proposes arbitrary adjustments to the frequency when these work groups are involved, proposing that their involvement be limited to 1% of orders. Nothing in Mr. Riolo's testimony, nor in BellSouth's experience, supports such limited involvement. Because of the complexity of designed circuits, the SAC, the AFIG, and the CPG are involved in significantly more than 1% of orders, and, based on BellSouth's experience, BellSouth's assumptions on their involvement are, at the very least, conservative.

Q. WHAT CONNECT AND TEST ACTIVITIES ARE INVOLVED IN INSTALLING XDSL LOOPS?

A. The work activities associated with actually putting the facility to work (i.e., the Connect and Test function) are performed by the following work groups or centers at BellSouth: Unbundled Network Element Center ("UNEC"); Special Services Installation and Maintenance

1 ("SSI&M"); the Work Management Center ("WMC"); and Central Office
2 Installation and Maintenance ("CO I&M").

3

4 Several witnesses, including Mr. Riolo, question the need for
5 involvement of the UNEC and the WMC. Both of these centers
6 perform functions critical to provisioning xDSL loops. The UNEC
7 performs functions similar to those that the Access Carrier Advocacy
8 Center ("ACAC") performs for access carriers. These include
9 coordination activities, such as tracking the status of orders and
10 escalating and handling orders in jeopardy. The major function of the
11 UNEC is to perform frame continuity and due date coordination and
12 testing.

13

14 The WMC determines the "dispatchability" of orders to outside field
15 forces. In particular, the WMC personnel: (a) pull a list of all unbundled
16 orders due for that specific day; (b) scan each individual order for
17 facilities and related orders and for facilities that may be reused (which
18 requires not only the verification of facility availability, but also a check
19 to see if the facility is compatible with the service requested); (c)
20 screen orders for the Network Channel type for verification to ensure
21 that the appropriate technician will be assigned to the facility; (d)
22 handle any exceptions (i.e., whether to re-use facility) when
23 appropriate; and (e) assign the proper technician to the order.

24

1 Both the UNEC and the WMC are involved 100% of the time (although
2 not every function performed by these centers occurs each and every
3 time). The work activities by the UNEC and WMC are critical to the
4 Connect and Test of xDSL loops and cannot be disregarded, as Mr.
5 Riolo and others attempt to do.

6
7 In addition to the UNEC and the WMC, both the SSI&M and CO I&M
8 groups perform Connect and Test activities in installing xDSL loops.
9 SSI&M personnel perform cross-connection at the cross-box, check
10 continuity on a cross-box^{+trouble resolution at the cross box}(30% of the time), perform testing from the
11 Network Interface Device ("NID"), tag the loop, perform trouble
12 resolution at the premises (21% of the time) and complete the order.
13 CO I&M personnel wire the circuit at the collocation site. Although this
14 activity by CO I&M personnel occurs 100% of the time on xDSL loops,
15 the costs are discounted 15% to reflect costs recovered in related
16 elements purchased by the ALEC (i.e., the cross connect).

17
18 Mr. Riolo proposes that the time that it takes for SSI&M and CO I&M
19 personnel to perform these various work functions be adjusted
20 downward and that the involvement of the SSI&M be assumed on only
21 20% of xDSL orders. Neither of these proposals is reasonable. In
22 particular, the notion that only 20% of xDSL loop orders require a
23 dispatch is unrealistic. As I explain below, a dispatch is required on
24 every xDSL loop order, which means that SSI&M personnel are
25 involved 100% of the time.

1

2 Q. ON PAGES 36 AND 37 OF HIS TESTIMONY, MR. RIOLO
3 PROPOSES CERTAIN "TASK TIMES" WHICH HE CLAIMS ARE
4 REQUIRED IN ORDER TO "EFFICIENTLY CONNECT AND
5 DISCONNECT AN UNBUNDLED LOOP." ARE HIS PROPOSALS
6 REASONABLE?

7

8 A. No. Mr. Riolo's proposal is based upon numerous errors. First,
9 BellSouth has no frames on which a single jumper may be placed
10 within 3 minutes. Second, Mr. Riolo assumes a single jumper, even
11 though there will be a minimum of 3 jumpers on multiple frames
12 required for these types of services. Third, Mr. Riolo fails to take into
13 account multi-line orders that should be reflected in the "Obtain and
14 Review Order" categories, which require greater time intervals than Mr.
15 Riolo has proposed.

16

17 Q. MR. McPEAK PROPOSES NUMEROUS ADJUSTMENTS TO THE
18 WORK TIMES ASSOCIATED WITH LOOP CONDITIONING. ARE
19 THESE ADJUSTMENTS VALID?

20

21 A. No. Mr. McPeak offers nothing but his own unsubstantiated opinion to
22 support drastic reductions to the times BellSouth has assumed.
23 Rather than addressing each of his proposals, I will only address
24 outside plant construction to illustrate the unreasonableness of his
25 approach. Mr. McPeak assumes that he can remove load coils from

1 25 pair in slightly more than two hours. By contrast, BellSouth
2 estimated that it takes more than 9 hours to remove load coils from 10
3 pair. The work activities involved in removing load coils are complex
4 and time consuming, and Mr. McPeak's assumptions to the contrary
5 are totally misguided. In fact, Mr. McPeak's assumed work times are
6 even well below those proposed by Mr. Riolo.

7

8 Q. WHAT ACTIVITIES ARE INVOLVED IN CONDITIONING A LOOP?

9

10 A. As noted by Mr. Riolo, to condition a loop, a BellSouth technician must
11 travel to the work location, set up work area protection, pump and
12 ventilate the manhole, buffer the cable and set up the splice, open the
13 splice case, identify the pairs, perform the necessary operations to
14 condition the loop, close the case, rack the cables, pressure test the
15 cables, and close down the work area. When two or more locations
16 are involved, these steps are repeated. To think that all of this work
17 can be accomplished in the short period of time proposed by Mr.
18 McPeak is unrealistic.

19

20 **XDSL Compatible Loops**

21 Q. BEGINNING ON PAGE 6 OF HIS TESTIMONY, MR. STACY STATES
22 THAT BELLSOUTH'S COST STUDY FOR UNBUNDLED COPPER
23 LOOP (UCL) CONTAINS AN ASSUMPTION THAT DISPATCHES
24 WILL BE MADE FOR EVERY UCL PROVISIONED (100%
25 DISPATCH) AND THAT HE ADVOCATES AN ASSUMPTION OF

1 ONLY 20% DISPATCH. HE STATES HIS BELIEF THAT THIS
2 LOWER DISPATCH ASSUMPTION SHOULD BE ADOPTED
3 BECAUSE THE SAME PAIR THAT IS USED TO PROVIDE VOICE
4 SERVICE WILL BE USED FOR xDSL SERVICE. IS HE CORRECT?

5
6 A. No. Whether or not the same loop that is providing voice service can
7 be reused to provide xDSL service, a dispatch is required in order to
8 ensure that certain parameters are met so that the loop will be suitable
9 for the intended xDSL service. These parameters, as stated in
10 BellSouth's TR 73600, include loading, foreign voltage, capacitance,
11 resistance, and actual measured loss. If these parameters are met,
12 the field technician will then attempt to test cooperatively with the
13 ALEC. These parameters cannot be accurately tested without a
14 technician in the field to send/receive the appropriate tones and/or
15 read the measurements, which necessitates a dispatch 100% of the
16 time.

17

18 **Nonrecurring Work Times**

19 Q. BRIEFLY DESCRIBE BELLSOUTH'S SL1 AND SL2 LOOP TYPES.

20

21 A. BellSouth witness Mr. Latham provides a detailed explanation of the
22 differences between SL1 and SL2 loops. While both loops are suitable
23 for voice grade services, the SL2 loop has these attributes that the SL1
24 loop does not:

25

- Test points are installed that are used to sectionalize a

1 trouble condition.

2 ● Design Layout Record (DLR) is documented and provided to
3 the ALEC. The DLR provides details of the actual loop
4 makeup.

5 ● A coordinated cutover process is used to minimize end user
6 outage when the loop is moved from BellSouth's switch to
7 the ALEC's switch.

8

9 Q. ARE BOTH SL1 LOOPS AND SL2 LOOPS "DESIGNED" LOOPS?

10

11 A. No. Only the SL2 loop is a designed loop. By designed loop, I mean
12 that BellSouth identifies the actual makeup of the loop and documents
13 such on the DLR that is provided to the ALEC so that the ALEC can be
14 assured that the loop meets the specified design parameters. Further,
15 the SL1 loop only accommodates loop start signaling (commonly used
16 for POTS services). The SL2 loop may have no signaling type
17 specified or may have loop start signaling ground start signaling or
18 loop reverse battery signaling upon request. The provisioning of the
19 requested signaling type means the loop must be designed for the
20 requested signaling type and provisioned accordingly.

21

22 Q. ON PAGE 58 OF HER TESTIMONY, MS. MURRAY ACCUSES
23 BELL SOUTH OF IMPOSING THE "DESIGN OF DSL-BASED
24 SERVICES" ON ALECS IN ORDER TO RAISE ALECS' COSTS
25 UNNECESSARILY. DO YOU AGREE?

1

2 A. Absolutely not. BellSouth offers a full array of unbundled loop types
3 such that ALECs have a choice of loop types over which they can
4 provision their services. ALECs have not come to the xDSL market
5 with a "one size fits all" all approach, and BellSouth has appropriately
6 responded to ALECs' requests for specialized loop types with differing
7 technical capabilities. Ms. Murray apparently advocates that BellSouth
8 should provide this full array of unbundled loop types but should only
9 be allowed to recover the costs associated with the lowest price loop
10 BellSouth offers. She is wrong. Ms. Murray attempts to shift the risks
11 associated with ALECs' decisions from the ALECs themselves to
12 BellSouth.

13

14 BellSouth offers "designed" loops not in order to drive up ALECs' costs
15 but to provide greater specificity about what a given loop type will
16 provide and greater certainty that a given service offering can be
17 successfully provisioned. For example, if the ALEC wants to sell ^{its data} ~~ADSL~~
18 service to its end user, the ALEC can choose an SL1 loop, an SL2
19 loop, an ADSL-compatible loop, an unbundled copper loop - short or
20 an unbundled copper loop - long in order to provision the service.
21 Each of these loop types has different design criteria and thus different
22 inherent technical capabilities. Correspondingly, there are different
23 rates for each of these loop types reflective of the actual network
24 elements used and the associated work required of BellSouth to
25 provision them. It is up to the ALEC to determine in a particular

1 situation which of these loop types offers the needed technical
2 characteristics at the lowest rate.

3

4 Q. MS. MURRAY SUGGESTS THAT THE COST FOR AN ISDN
5 COMPATIBLE LOOP SHOULD REFLECT ONLY A SMALL
6 INCREMENT ABOVE THE COST FOR AN SL1 LOOP. DO YOU
7 AGREE?

8

9 A. No. First of all, ISDN loops are designed loops. BellSouth must
10 document and provide the DLR to the ALEC. BellSouth must install a
11 test point on the ISDN loop at the central office and the ALEC may
12 request a coordinated cutover. These differences represent far more
13 than the small incremental cost above SL1 suggested by Ms. Murray.

14

15 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

16

17 A. Yes.

18

19 PC DOCs #225381

1 MR. EDENFIELD: At the conclusion of Mr. Greer's
2 summary, we have the videotape, Commissioner Deason, that
3 we discussed last night. I did my best efforts, I was
4 able to get it down from, like, an hour and a half down
5 to, I think, it's 21 minutes with some fast-forwarding.
6 So, a lot of that 21 minutes is actually just
7 fast-forwarding, and will not be part of that -- you will
8 be able to see it, but it's not going to be commented on.
9 We were planning on showing that at the conclusion of the
10 summary, if that's okay with you.

11 CHAIRMAN DEASON: Yeah. Whatever time it goes
12 over 15 minutes, we're taking away from your lunch time.

13 MR. EDENFIELD: That's acceptable. Believe me,
14 I could stand to miss a whole meal.

15 MS. BOONE: Commissioner Deason, just
16 BellSouth's lunch time?

17 CHAIRMAN DEASON: Yes, absolutely. We'll make
18 them stay in the room while we go to lunch.

19 MS. BOONE: Detention, thank you.

20 MR. EDENFIELD: Reminds me of elementary school.

21 CHAIRMAN DEASON: A lot of here reminds me of
22 elementary school.

23 MR. EDENFIELD: With that, I'll stop.

24 BY MR. EDENFIELD:

25 Q Mr. Greer, do you have a summary prepared of

1 your testimony?

2 A Yes, I do.

3 Q Would you give that now, please?

4 A It is the purpose of my testimony to provide
5 rebuttal to those who have challenged BellSouth's work
6 activities for the conditioning of plant to provide xDSL
7 loops and BellSouth work activities and provisioning
8 unbundled loops.

9 First, I will address the ALEC's criticisms of
10 the assumptions BellSouth used for loop conditioning work
11 activities in the cost study. By loop conditioning, I am
12 referring to the removal of load coils and bridge tap from
13 copper loop facilities.

14 In simple terms, a load coil improves voice
15 transmission by reducing the amount of signal loss.

16 Bridge tap is the presence of a pair in multiple places in
17 order to increase the flexibility of the network.

18 In other words, you are allowing a loop to serve
19 different geographic areas without the necessity of
20 duplicating the entire facilities in both places. The
21 reason that loop conditioning is such an important aspect
22 of this case is that load coil, and to some extent, bridge
23 tap, limits the ability of a loop to support DSL
24 technology.

25 Thus, loops have been built with load coils for

1 voice-grade transmission must be conditioned before these
2 loops can be utilized to support DSL. The controversy is
3 not whether or not the loops have to be conditioned, but
4 rather the amount of time and the work activities required
5 to perform this conditioning are reasonable.

6 Even where the parties agree that a particular
7 work activity is necessary, there is still disagreement as
8 to the time required to perform the work activity. Given
9 these work activities are performed by BellSouth personnel
10 on a BellSouth network, BellSouth is in the best position
11 to know which activities are necessary and how much time
12 it takes for it.

13 The ALECs do not have any experience in my
14 network. They have made assumptions that are not on my
15 network. Load coils is one example. We'll be
16 demonstrating at the end of my summary in a video such an
17 example.

18 Another area of contention, in regarding loop
19 conditioning, concerns the number of pairs which load
20 coils should be removed on a single job. BellSouth's
21 current work practice is to remove load coils from the
22 number of pairs that an engineer, who is knowledgable
23 about his wire center, has determined to be the economical
24 number.

25 This can be as few as one pair or it might be a

1 whole complement. Therefore, for purposes of determining
2 the appropriate rate for loop conditioning, the Commission
3 should accept BellSouth's cost assumption that 10 pairs on
4 average are unloaded on a single job.

5 In this proceeding, the ALECs have proposed that
6 BellSouth unload anywhere from 25 to 100 cable pairs per
7 job. There are several reasons why the Commission should
8 reject the ALEC's proposal.

9 One such reason is there may be special service
10 circuits, such as an analog data line, that if the load
11 coil should just be simply removed, then the circuit would
12 fail. Another reason is that distribution areas that are
13 fed by the feeder route may require that, in fact, the
14 pairs be loaded to provide proper voice-grade
15 transmission.

16 The ALECs also challenge BellSouth's assumption
17 that it will be necessary to remove 2.1 load coils on
18 loops that are less than 18 kilofeet. They demonstrate a
19 lack of familiarity with BellSouth network when they
20 assert that no loop under 18 kilofeet can ever have more
21 than two load coils. To the contrary, it is an acceptable
22 practice that loops as short as 15.1 kilofeet to have
23 three load coils, if bridge tap is there to minimize the
24 presence of the load coil.

25 In accordance with this industry practice,

1 BellSouth assumes, for purposes of this cost study, that
2 90% of the loops will have two load coils and that 10% of
3 the loops can have three. These percentages form the
4 basis for the cost study assumption that 2.1 load coils
5 will be removed on average from a loop less than 18
6 kilofeet.

7 Another area of contention surrounding loop
8 conditioning is the location of the plant from which the
9 load coil must be removed. By that, I mean whether the
10 plant is underground, aerial or buried. For purpose of
11 the cost study, BellSouth has assumed that 90% of the time
12 the load coils will be removed from the underground and
13 the remaining 10% the load coil will be either in the
14 aerial or buried plant.

15 BellSouth's assumption is based on the fact that
16 for the need of this activity would largely be in large
17 metropolitan areas. In BellSouth's experience, this is
18 where DSL is being deployed, initially.

19 The other general topic addressed in my
20 testimony is the work activity necessary to provision
21 HDSL-capable loops for an ALEC. A primary point of
22 contention is whether or not these loops should be
23 designed.

24 By design, I mean that these loops are
25 guaranteed to meet certain technical parameters. This is

1 important, because without such criteria, the ALEC cannot
2 be assured that the loop it orders will be capable of
3 supporting this technology that it intends to deploy to
4 supply a service to its end user.

5 While there are a number of work centers
6 involved in ordering and provisioning of design circuits,
7 each of the group is critical and has been proven
8 necessary to ensure that the ALEC gets a loop that will
9 meet the technical requirements of the service he intends
10 to offer and that he gets a designed loop in a timely
11 manner.

12 Keep in mind that BellSouth offers a full array
13 of xDSL loops, such as ADSL, HDSL, UCL short and UCL long.
14 Each of these have specific technical requirements thus,
15 validating the activities of each of the work groups
16 involved in the ordering and provisioning process.

17 Several of the work centers that are involved
18 have work activity only on a fallout basis. Other work
19 groups are 100% of the time. Two of these work groups
20 that are involved 100% of the time is a UNE center and the
21 special service installation and maintenance group.

22 While the ALECs contend that such intervention
23 is inefficient, it has been proven well for us for all the
24 designed circuits that BellSouth provisions to its own
25 retail customers and to interexchange carriers.

1 In summary, I want the Commissioners to realize
2 that BellSouth has been diligent about developing the work
3 activities and the work times that have gone into the cost
4 studies for the unbundled network elements.

5 That concludes my summary.

6 Q Does that conclude your summary, Mr. Greer?

7 A Yes, it does.

8 MR. EDENFIELD: At this time, Commissioners, we
9 would like to show a 20-minute video which, hopefully,
10 will shed some light on some of these topics we've been
11 discussing. Mr. Greer is going to narrate as we go along.
12 I think, they've managed to get all the volume out of the
13 tape itself. So, Mr. Greer, take it away.

14 CHAIRMAN DEASON: And if you notice, the
15 Commissioners have their heads down, we're not asleep,
16 we're looking at our screens.

17 THE WITNESS: We have already arrived at the
18 work site here. And something I want to point out is that
19 he's taken the lid off, and he's already got the tool in
20 his hand, and he's cleaning off the rim so that when he
21 gets ready to turn around in a few minutes and set the
22 retainer around the lid, that keeps stuff from falling in,
23 it's clean. He doesn't have to pick up the tool again.

24 This man, while he's cleaning the rim, he's
25 checking for toxic in both water and air. And there's

1 your water, plenty of it. We are told that this is
2 actually a four-chamber manhole. So, there is a lot of
3 water in this one.

4 There he is setting the rims. This is
5 continuing to set up the work area. There are the rings
6 around it. This manhole right here has two openings right
7 beside each other. This allows for better ventilation.
8 They set up the cages to keep you from falling in, of
9 course.

10 This is on a side road, which is fortunate. As
11 you can see, there's very little traffic. And he prepares
12 to begin pumping in just a moment. He's placing the pump
13 down now into that manhole. This man right here, right
14 quick where we go fast, he puts air on to the cable,
15 because this cable actually has air pressure on it. And
16 if you lose the air pressure, you'll get water in and
17 damage pairs.

18 CHAIRMAN DEASON: I'm sorry, what has air
19 pressure on it, the cable itself?

20 THE WITNESS: This cable itself has air pressure
21 to ensure that the water stays out of the sheath.

22 CHAIRMAN DEASON: How often do you actually have
23 to pump water out when you do this type of work?

24 THE WITNESS: I do not have an actual time,
25 number of times. This is Miami. And so, water is quite

1 common, to some degree or the other.

2 The other day I was in Atlanta myself, and it
3 hasn't rained that much in Atlanta; and yet, when we got
4 to the manhole, we had to pump out some water just to get
5 it down to where we could walk into it. They get water,
6 both from run-off and from just the groundwater.

7 And you see the appearance of the first splice
8 case. So, we've pumped it down that far. Pumping air
9 into it to, if there is any toxic air down there, get it
10 out.

11 And he goes down into the water to check to see
12 how he's coming along. They actually here take the water
13 and for a few moments spray it around to wash off the mud
14 and other stuff off of the splicing case so that it won't
15 contaminate it when they open the splice case up.

16 COMMISSIONER JABER: Was this video prepared for
17 this hearing?

18 THE WITNESS: Yes, it was.

19 He is identifying the cable. He looks around,
20 and he pulls straps off and reads them. He's looking for
21 a specific count. And there are tags that are put on to
22 them. He wants to be very sure that when he opens that
23 case he's going where he needs to go.

24 My experience the other day was we made a
25 mistake. We took the easiest case to get to, it was

1 wrong, we closed it up, and had to go to the one that was
2 underneath it.

3 What he's pointing out right here --

4 CHAIRMAN DEASON: Let me ask you, does it affect
5 the integrity of the case with the number of times you
6 open it or is it designed to be opened on a routine basis?

7 THE WITNESS: These cases here, being the
8 plastic cases, can be opened and closed without the damage
9 to the case itself. You will look around in here, you may
10 see what is called an old lead case. Today, policy, for
11 the most part, is that if you have to go into a lead one,
12 you remove it, replace it with a plastic one, so that's
13 the end of the lead. You won't be opening and closing a
14 lead splice anymore. Opening and closing lead splices
15 were very detrimental to the cases, and they wore out and
16 they leaked, but that's not a case anymore.

17 There was a leak in the duct. They sealed the
18 cables where they come through the holes, the actual duct,
19 but they have a leak here. So, what you see us going past
20 is where he's preparing to close that leak up, because
21 water's pouring in and will just fill back up again, if he
22 doesn't.

23 He spent about 8 minutes repairing -- 8 to 10
24 minutes, repairing this hole or this leak; a very good
25 plumber, I might add. And here's where he begins actually

1 opening the case. We've advanced to using air tools,
2 which makes it much simpler to loosen these bolts.

3 CHAIRMAN DEASON: Do you use a portable air
4 compressor?

5 THE WITNESS: He has a compressor on the trailer
6 to do this, to also pressurize the cable. And he's
7 beginning to break the seal at this point. There's an
8 adhesive between the two halves of the case to keep water
9 out. So, he has to leverage his force to break that seal.

10 This is interesting. He left his bolts in the
11 case. The guy the other day took them all out. He only
12 had about two years of experience, and he left. He took
13 the bolts out, put them some place and then, of course, he
14 has to get them back in, but...

15 Another note here, the guy goes ahead and takes
16 his tie wraps and slips them in now so that at that moment
17 when he gets to close it up, the tie wraps are already
18 there. So, he's getting ready to pull back the cover that
19 protects the actual pairs inside, protects them from the
20 closing of the sheath or the splice case, I should say.

21 These are the modules they talk about where the
22 25 pairs are spliced together. And as it turns out, this
23 is pulp cable, and pulp cable is not color coordinated.
24 It doesn't have the -- you'll see, interesting enough,
25 that somebody has tied plastic stripes around each 25

1 pairs, but it isn't that just by the fact that I can reach
2 in and find this binder group and then I look at the color
3 of the pair that I know I'm on the pair that I need. If
4 you're fortunate, and the people before you have tagged
5 the pairs, twisted them together, put numbers on them,
6 then, it'll make your job easier.

7 COMMISSIONER JABER: Is each numbered bundle, is
8 that a pair? That's the 2-- what is the 25-pair in that
9 picture?

10 THE WITNESS: The plastic strip you see is
11 holding 25 pairs in it.

12 COMMISSIONER JABER: And that's what has the
13 number on it?

14 THE WITNESS: I believe that they put the number
15 around each 25. They may have grouped it in 100. A pulp
16 cable was actually 100-pair binder groups. So, someone
17 may have, at some point, decided to go ahead and identify
18 each 25-pair through the 100 and put them in these plastic
19 connectors.

20 COMMISSIONER JACOBS: There will be spares in
21 there as well?

22 THE WITNESS: There could be.

23 COMMISSIONER JACOBS: Okay. So, all the 25 will
24 not necessarily have been provisioned?

25 THE WITNESS: There may not be circuits on all

1 25, that's true.

2 He is beginning to be sure he's on the right
3 pairs. He's using -- at this point, he's identifying each
4 individual pair. What we did not see is he has a similar
5 type of tone device, but because he's not down to the
6 criticalness of identifying each pair one at a time. He
7 just goes through searching through. This is a 2,700-pair
8 cable.

9 So, he had to search through every one of those
10 groups to pick up a tone to be sure he actually had the
11 group he wanted to be with. He has somebody back in the
12 central office, excuse me. There's a person in the
13 central office who is at the main frame. And the main
14 frame is well labeled that this is cable 6, pair 501 to
15 525. That's the one place you know for sure that you're
16 dealing with the pairs you're talking about here.

17 Things could have gone awry over the years
18 between the main frame at this point. So, you don't want
19 to just assume that because you pick up this group right
20 here you've got what you want. You want somebody putting
21 a tone on at the central office that's identified there,
22 pick it up here, you are 100% guaranteed there that
23 anything that calls for cable 6, pair 501, has been
24 properly dealt with here.

25 So, this is a -- what you're actually,

1 experiencing here is a two-man job at this point, but
2 there's also the other man that has been helping you out.
3 You'll see him in a minute come back into play.

4 So, he's going through identifying each one,
5 preparing for the next step that will be shown where he
6 actually removes them from this connector and puts them in
7 a new connector.

8 CHAIRMAN DEASON: I'm sorry, he does what?

9 THE WITNESS: He's going to remove them from
10 this connector, because this connector is actually tying
11 the cable pair to the load coil. And there's another one
12 there that ties the load coil back to the cable pair
13 that's going on out to the field.

14 He's going to remove each pair from those
15 spliced connectors and put them together, essentially,
16 bypassing the load coil; and that is, bypassing the load
17 coil is a phrase that we call unloading the pair.

18 COMMISSIONER JACOBS: This is where he chooses
19 -- how does he choose the 10?

20 THE WITNESS: As it turns out, this job is for
21 25. For whatever reason, the engineer who issued this job
22 requested all 25 pairs be done.

23 COMMISSIONER JACOBS: The whole thing?

24 THE WITNESS: Yes.

25 CHAIRMAN DEASON: There's no service being

1 provided over these 25-pair at this present time, correct?

2 THE WITNESS: Can't be sure.

3 CHAIRMAN DEASON: Can't not be sure?

4 THE WITNESS: I do not know that. They could be
5 doing that. There could be working pairs. And that's why
6 he's waiting until this last moment here is when he's
7 affecting service.

8 CHAIRMAN DEASON: So, he could be interrupting a
9 telephone call right now.

10 THE WITNESS: Yes.

11 COMMISSIONER JABER: The home office wouldn't be
12 able to tell him if there were calls being made or if
13 there was service interruptions? It seems like the PSC
14 would have more complaints than this, if that kind of work
15 was causing service interruptions.

16 THE WITNESS: Well, that's part of the decision
17 of the engineer that if these are all truly POTS
18 residential type pairs, and you have a low probability
19 that you'll be interrupting critical transmission -- I
20 mean, critical service at the time, then this is a reason
21 why he may have chosen to go ahead and unload all 25
22 pairs.

23 And they're closing it up.

24 CHAIRMAN DEASON: This whole exercise was just
25 to bypass a load coil?

1 THE WITNESS: Yes, to move a load coil from a
2 loop. Possibly, that when this was put in, because this
3 is pulp cable, and it's been years since pulp cable was
4 actually installed, so this cable has been there for many
5 years. The job may have just called to load them all,
6 2,700 pairs, load them all up, because this would have
7 been done back in the '70s, probably somewhere in the
8 early '70s.

9 COMMISSIONER JABER: And how much time does this
10 process usually take?

11 THE WITNESS: Which portion? The whole --

12 COMMISSIONER JABER: This videotape, for
13 example, what they just did, unloading the 25, how long
14 did that take?

15 THE WITNESS: From the time he opened the case
16 until the time he closed it up, I believe, it was about 45
17 minutes to an hour. I'd have to look back at some other
18 notes.

19 COMMISSIONER JACOBS: So, it would -- how often
20 is it the case that they would go in and find load coils
21 on all of these, on all of the pairs in this casing?

22 THE WITNESS: Again, if I understand your
23 question, Mr. Commissioner, is that there could be that
24 another need arise that they will go back into this case
25 and unload them.

1 COMMISSIONER JACOBS: Do you know how many --
2 the database that Mr. Pate just talked about, it knows
3 which pairs in this sleeve here have load coils on them,
4 correct?

5 THE WITNESS: Yes, sir, if you're talking about
6 LFACS --

7 COMMISSIONER JACOBS: Right.

8 THE WITNESS -- LFACS should have record of all
9 these cable pairs and that they are loaded.

10 COMMISSIONER JACOBS: Now, will it know which
11 one of the 25 to go to or does he have to search through
12 to find -- how does he correlate what's in here with
13 what's in LFACS?

14 THE WITNESS: This man here is working from what
15 an engineer produced, an engineering work order. So, he
16 doesn't know anything about LFACS at all. The engineer
17 who drew up the job to unload these pairs is the one who
18 has access to the plats, the database, the whole.

19 COMMISSIONER JACOBS: Okay.

20 THE WITNESS: And he instructs him which count,
21 cabling count to go to.

22 COMMISSIONER JACOBS: Okay. So, he'll know
23 which count to go to?

24 THE WITNESS: And it's the responsibility of the
25 outside plant engineer to get LFACS updated now to reflect

1 this operation.

2 COMMISSIONER JACOBS: Okay.

3 CHAIRMAN DEASON: How does the engineer know
4 that this particular set of 25-pair, that none of those
5 circuits need a load coil to provide adequate service?

6 THE WITNESS: He should have looked at the
7 terminal where it fed --

8 CHAIRMAN DEASON: I'm sorry, look at what?

9 THE WITNESS: He should have look at the
10 terminal, the cross box, I should say, to which it feeds,
11 and determines what the ultimate length of any of these
12 loops could possibly be and make that decision.

13 CHAIRMAN DEASON: So, there shouldn't be no
14 degradation in service, because of the removal of the load
15 coil for these particular pairs?

16 THE WITNESS: That's right.

17 MR. EDENFIELD: I'm sorry, I had them stop the
18 video while ya'll asked questions. Go ahead, Mr. Greer.

19 THE WITNESS: At this point, he's removing --
20 no, he's already cleaned off the old adhesive, and now
21 he's applying new adhesive.

22 Again, this is pulp cable. It's, basically,
23 nothing more than sawdust that's glued on to the copper
24 pair. So, you can imagine that a drop of water gives you
25 a -- could give you a failure in the pair. So --

1 COMMISSIONER JABER: Could do what?

2 THE WITNESS: A simple drop of water getting on
3 one of these cable pairs could make it short, what we call
4 a short or a ground, it would cause a trouble report, make
5 the pair go defective.

6 One's doing the fast job, one's doing the make
7 sure job. He's reestablishing a ground strap. You want
8 to have your cables grounded to reduce lightning, AC
9 faults, each cable, destroy it. He's putting soap on it,
10 looking for air bubbles.

11 CHAIRMAN DEASON: So, it's automatically being
12 repressurized?

13 THE WITNESS: Yes; checking out everything, even
14 the portions he didn't touch. In a minute -- he's even
15 putting some soap on the cable underneath him. I suspect
16 he may put his foot on it or something and wants to be
17 sure that he hasn't broken anything loose.

18 And it's clean-up time, and there's a lot to be
19 put up here. You have hoses, you have breakdown. In the
20 case that I experienced, the guy that was back in the
21 central office, who was helping out toning, it's his job
22 to big foot it back out here to help out.

23 COMMISSIONER JABER: When I asked you about the
24 time it took to complete this process, did you include
25 clean-up time in your response?

1 THE WITNESS: My response to you awhile ago was
2 just on getting into the splice case and getting back out
3 again. When this concludes in a minute, there will have
4 been about 4 1/2 hours. They started at about 8:00, and
5 you see that they are finishing up around 12:30.

6 COMMISSIONER JABER: Okay.

7 THE WITNESS: I want to show you something in
8 just a moment -- that should suffice. That should
9 conclude the video.

10 MR. EDENFIELD: The remainder of the video was
11 just more of the clean-up. At this time, we would ask
12 that the videotape be marked for identification as, I
13 believe, the next exhibit is 117.

14 And I would like to, for the record, note that
15 we are not asking that this be submitted as a time in
16 motion study, but just to show the tasks that are involved
17 in conditioning the loop. I don't want it to be
18 representative of a time in motion study.

19 CHAIRMAN DEASON: Okay. It will be identified
20 as Exhibit 117.

21 (Exhibit 117 marked for identification.)

22 MR. EDENFIELD: With that, Mr. Greer is
23 available for cross examination.

24 CHAIRMAN DEASON: One question before we begin.
25 This is normally done by a two-men crew; is that correct,

1 this type work?

2 THE WITNESS: Yes. Unloading is often -- to my
3 knowledge, there is no requirement that you have to have
4 two people there. But from a safety standpoint, that is
5 my understanding, that two men do go out, at least two men
6 to do this. It's necessary to identify pairs alone you
7 have to have that second man back in the central office.

8 CHAIRMAN DEASON: The crew in this particular
9 video, would they be classified as equals or one's like a
10 supervisor and one is more like an apprentice or do you
11 know?

12 THE WITNESS: I understand here that these two
13 men were actually the -- they were both facility techs.

14 CHAIRMAN DEASON: That's their title, a facility
15 technician?

16 THE WITNESS: There are some other differences,
17 but a facility tech is a technician who touches the cable.

18 CHAIRMAN DEASON: What other type work does the
19 crew with these qualifications do, other than just
20 bypassing load coils?

21 THE WITNESS: These same men would be placed
22 with ones that were placing the cable. Typically, they do
23 divide them up between the groups that do the underground
24 and the groups that would do the aerial, but they would
25 place the cable. They would also place fiber optics. So,

1 they do our construction of our outside plant.

2 CHAIRMAN DEASON: So, they not only do things of
3 this nature, reconfigurations, do they do maintenance as
4 well as new construction?

5 THE WITNESS: Yes. In the same organization,
6 the construction, you have the people who, if there's a
7 single pair that needs to be repaired, it would be a
8 facility tech who would go out and repair a single pair.

9 CHAIRMAN DEASON: Cross examination.

10 MS. BOONE: I have some.

11 CROSS EXAMINATION

12 BY MS. BOONE:

13 Q Hello, Mr. Greer. It seems like it's been a
14 while since Friday during your deposition, but I'm Cathy
15 Boone with Covad. It's nice to see you.

16 A Good to see you.

17 Q I do have some questions for you. We just got
18 the videotape last night, so I do want to get some more
19 information on it. It was filmed on September 7th; is
20 that correct?

21 A I believe, I recall that date, yes.

22 Q Okay. And were you there for the filming of it?

23 A No, I was not.

24 Q Did you speak to any of the people that were
25 involved in the tasks that we just saw?

1 A I did not, personally, no.

2 Q How did BellSouth pick this particular load coil
3 job?

4 A I do not know how they decided on this one.

5 Q And the film was made, specifically, for this
6 docket; is that correct?

7 A There was a request to have one made for this
8 docket, yes.

9 Q Because BellSouth doesn't routinely videotape
10 removal of load coils, correct?

11 A To my knowledge, it does not.

12 Q And you weren't involved in the decision about
13 which type of job to videotape, were you?

14 A No, I was not.

15 Q Do you know who was?

16 A No, I do not.

17 Q You don't know of any other videotapes that
18 BellSouth made in preparation for this docket, do you?

19 A I made one myself.

20 Q Of what, may I ask?

21 A The unloading of cable pairs.

22 Q Was that the one you mentioned in Atlanta?

23 A Yes, it was.

24 Q Okay. I might ask you about that in a little
25 bit, but I'm just going to write that down for now.

1 Now, I just want to make clear for the
2 Commission and everything what type of loop plant we were
3 just looking at. That was a 2,700-pair cable, correct?

4 A That is my understanding.

5 Q It would be fair to say it was a copper-feeder
6 cable?

7 A Yes.

8 Q Because you don't have distribution cables that
9 are that large, correct?

10 A No. Typically, they're not that large.

11 Q I'm going to ask you to speak up just a little
12 bit, because as Mr. Edenfield reminded me yesterday,
13 nobody has trouble hearing me. But, if you would, we want
14 to make sure the court reporter gets down what you're
15 saying and everybody can hear.

16 Do you happen to know the length of the loops
17 that were being unloaded in that video?

18 A No, I do not know that.

19 Q So, you don't know if they were longer than
20 18,000 or shorter than 18,000?

21 A No, I do not know that.

22 Q And you don't know if there were any design
23 circuits on any of those loops, do you?

24 A No, I do not know that.

25 Q You didn't know if they were working pairs or

1 spare pairs?

2 A No, I do not know.

3 Q Now, you watched the tape on your own with the
4 sound, I take it?

5 A Yes, I have.

6 Q So, have I. Would you agree with me that the
7 gentleman on the tape at the very beginning said that
8 BellSouth does not load loops shorter than 18,000 feet?
9 Subject to check. You could check it at lunch.

10 A Subject to check.

11 Q Okay. And it's correct that the cable shown was
12 pulp cable, correct?

13 A Yes, that is my understanding.

14 Q And would you agree with me that pulp cable is a
15 kind of an old cable?

16 A Yes, it is an old cable.

17 Q And BellSouth is not placing that type of cable
18 any longer?

19 A No, BellSouth does not place that cable.

20 Q In fact, that cable hasn't been placed since the
21 early '80s; is that correct?

22 A It is my understanding that somewhere in the
23 late '70s to early 80s it was discontinued.

24 Q Okay. So, let's say, 1977 to 1982 or so; would
25 that be fair?

1 A Yes, that would be a reasonable time frame.

2 Q Would you agree with me that old BellCore
3 standards indicate that when cable gets up to 85%
4 capacity, you should start looking at putting in a relief
5 job, meaning, additional cable facilities?

6 A No, I do not have knowledge of that.

7 Q You're not familiar with those standards?

8 A No, I am not.

9 Q And your job is in transmission engineering; is
10 that correct?

11 A Yes, I am a transmission engineer.

12 Q Okay. But if I told you that was the rule, you
13 would have no reason to believe that wasn't correct? If
14 you can't answer that, that's fine.

15 A Subject to check.

16 Q Subject to check, that's fine.

17 Mr. Greer, are you familiar with the types of
18 loop plant that BellSouth is currently provisioning?

19 A Can you rephrase the question?

20 Q Sure. Are you familiar with the type of outside
21 loop plant that BellSouth, brand new loop plant, what type
22 they are deploying today?

23 A Yes, I'm familiar with what's being deployed
24 today.

25 Q And, to your knowledge, is BellSouth deploying

1 all all-copper loop plant over 18,000 feet?

2 A No. BellSouth does not place any cables today
3 to reach a distance of 18 kilofeet.

4 Q And BellSouth is not provisioning any 18 -- any
5 loops shorter than 18,000 feet with load coils?

6 A No. Today, BellSouth has been moving for many
7 years to digital loop carrier. That is what was seen in
8 the early '80s as a way to begin to evolve your outside
9 plant to the new technologies that were coming.

10 So, since the early '80s when DLC, digital loop
11 carrier, first came out, BellSouth started then
12 restricting the amount of feeder plant that was copper,
13 that's the pairs that were terminated on the MDF. So,
14 Since that time, a decreasing amount of copper has been
15 placed in the F1 portion from the central office.

16 Q A decreasing amount? Do you recall during your
17 deposition stating that you had to obtain officer approval
18 from BellSouth to terminate a copper cable on the MDF
19 today?

20 A Yes, I do.

21 Q Okay. So, it would be a very rare circumstance
22 when that would happen?

23 A Today, not only to the western states of
24 BellSouth, but also the eastern states of BellSouth have
25 to have officer approval to terminate any cable on the

1 MDF.

2 Q The tape had a running timer. And by my
3 calculation, it started at 8:16 and ended at 12:42; does
4 that sound about right?

5 A Yes, that sounds about right.

6 Q So, based on this running time, this is roughly
7 the length of time that BellSouth's cost study claims that
8 an average job across all conditions would take?

9 A Yes, BellSouth cost study shows 4 1/2 hours.

10 Q Okay. And this tape showed 4 1/2 hours?

11 A Yes, and this tape showed 4 1/2 hours. Now,
12 BellSouth's cost study actually is showing the number of
13 hours, man hours, that are used. So, whereas BellSouth's
14 cost study is showing 4 1/2 man hours, if you computed
15 this, this would actually come out to be somewhere in the
16 neighborhood of three times that, since there were
17 apparently three people working on this job.

18 Q Okay. I think, in your testimony, you said that
19 BellSouth's cost study says 9 hours.

20 A Yes, I did.

21 Q Because that's the man-hour portion, 4 1/2 hours
22 times 2.

23 A Yes.

24 CHAIRMAN DEASON: Well, let me ask you. You
25 said three people. You're saying that the person in the

1 central office would be working just on this job for the
2 whole 4 1/2 hours?

3 THE WITNESS: There are instances -- yes. In
4 the typical case where there are -- this is three. If
5 there's only two, he does some of the work at the
6 location, and then he goes to the central office. So,
7 from the time they left the construction site in the
8 morning there were two people dedicated to a job or will
9 be dedicated to a job. And one of them will have to go to
10 the central office.

11 CHAIRMAN DEASON: But in this case two were at
12 the job site the entire time and one was at the central
13 office.

14 THE WITNESS: Yes, sir.

15 CHAIRMAN DEASON: And, I guess, my question is,
16 is it a full-time job for the person in the central office
17 during this entire 4 1/2 hours or can they be doing
18 something else and only on a routine basis do they check
19 back with the crew in the field?

20 THE WITNESS: There is nothing else for them to
21 be doing. They should not have left this site until the
22 splicing case was open and he was needed in the central
23 office.

24 CHAIRMAN DEASON: I guess, I'm unclear. In this
25 video, were there two technicians on-site the entire 4 1/2

1 hours?

2 THE WITNESS: Yes, there was.

3 CHAIRMAN DEASON: Okay. So, that means there's
4 a third person located in the central office.

5 THE WITNESS: Yes, there is.

6 CHAIRMAN DEASON: Okay. Was that third person
7 required to devote all of their time to this particular
8 project for that entire 4 1/2 hours?

9 THE WITNESS: Yes, he is.

10 CHAIRMAN DEASON: Why?

11 THE WITNESS: Well, he -- in my personal
12 experience with one is that he could -- I did not see him
13 here, but the efficiency says he goes to site with his
14 partner, helps him set up, and then, when they're set up
15 and one man is ready to end the splicing case, then the
16 other one goes to the C.O. and begins toning pairs with
17 him. And then, when they're done with the operation
18 there, the guy in the manhole can then start shutting down
19 the splicing case. And the other man returns to help them
20 to clean up.

21 CHAIRMAN DEASON: So, you're saying the more
22 typical situation is just two technicians for 4 1/2 hours.

23 THE WITNESS: That's my understanding, yes, sir.

24 BY MS. BOONE:

25 Q I'd like to pass out a page, part of page 92 of

1 Mr. Riolo's testimony. I'm passing out just for
2 demonstrative. No, actually I do need to mark it, if you
3 would mark it for identification. I believe, the next one
4 is 118?

5 CHAIRMAN DEASON: That's correct, 118.

6 (Exhibit 118 marked for identification.)

7 BY MS. BOONE:

8 Q Are you familiar with this page of Mr. Riolo's
9 testimony?

10 A Yes, I am.

11 Q I'd like to ask you some questions about that.

12 MR. EDENFIELD: If Ms. Boone could wait one
13 minute until I can get a copy of that, I'd appreciate it.

14 (Transcript continues in sequence in Volume 12.)

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1 STATE OF FLORIDA

2 : CERTIFICATE OF REPORTER

3 COUNTY OF LEON)

4

5 I, KORETTA E. STANFORD, RPR, Official Commission
6 Reporter, do hereby certify that the HEARING in Docket
7 No. 990649-TP was heard by the Florida Public Service
8 Commission at the time and place herein stated.

7

8 It is further certified that I stenographically
9 reported the said proceedings; that the same has been
10 transcribed under my direct supervision; and that this
11 transcript, consisting of 199 pages, Volume 11 constitutes
12 a true transcription of my notes of said proceedings and
13 the insertion of the prescribed prefiled testimony of the
14 witness(s) ..

11

12 I FURTHER CERTIFY that I am not a relative, employee,
13 attorney or counsel of any of the parties, nor am I a
14 relative or employee of any of the parties' attorneys or
15 counsel connected with the action, nor am I financially
16 interested in the action.

14

DATED THIS 22nd DAY OF SEPTEMBER, 2000.

15

16

Koretta E. Stanford

KORETTA E. STANFORD, RPR

17

FPSC Official Commissioner Reporter
(850) 413-6734

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