

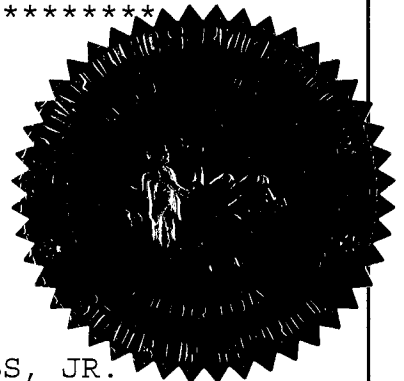
BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

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

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VOLUME 19

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PROCEEDINGS: HEARING

BEFORE: CHAIRMAN J. TERRY DEASON
COMMISSIONER E. LEON JACOBS, JR.
COMMISSIONER LILA A. JABER

DATE: Friday, October 20, 2000

TIME: Commenced at 10:00 a.m.
Concluded at 10:40 a.m.

PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida

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APPEARANCES:

(As heretofore noted.)

DOCUMENT NUMBER-DATE

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I N D E X

WITNESSES

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P R O C E E D I N G S

1
2 CHAIRMAN DEASON: Witness Stacy.

3 MR. SLOAN: Yes. Coalition Witness Stacy
4 provided direct testimony on July 31st; accompanying that
5 testimony is 12 exhibits. Revised rebuttal was submitted
6 on August 28th; one exhibit accompanied that testimony.

7 CHAIRMAN DEASON: I'm sorry. Now, Witness Stacy
8 has direct and rebuttal?

9 MR. SLOAN: Yes. It was titled revised
10 rebuttal, but it is supplemental testimony.

11 CHAIRMAN DEASON: Okay. So I just want to make
12 sure the record is complete, or is accurate. Can you
13 identify all pieces of testimony which you wish to have
14 inserted into the record by the date that it was filed?

15 MR. SLOAN: July 31st testimony.

16 CHAIRMAN DEASON: Okay.

17 MR. SLOAN: And August 28th testimony.

18 CHAIRMAN DEASON: Okay. Now, are there exhibits
19 to either piece of testimony?

20 MR. SLOAN: There are. There are 12 exhibits to
21 the July 31st testimony, and there was one exhibit to the
22 August 28th testimony.

23 CHAIRMAN DEASON: Okay. And you are moving the
24 testimony into the record. Without objection, show the
25 testimony inserted into the record. And we shall identify

1 the accompanying exhibits to the prefiled testimony as one
2 composite exhibit and it shall be Exhibit 153. And
3 without objection Exhibit 153 shall be admitted into the
4 record.

5 (Exhibit 153 marked for identification and
6 admitted into the record.)

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1 **I. Witness Introduction and Purpose of Testimony**
2

3 **Q. Please state your name and business address for the record.**

4 A. My name is Mark Stacy. My business address is as follows: QSI Consulting,
5 Inc., 5300 Meadowbrook Drive, Cheyenne, Wyoming 82009.
6

7 **Q. By whom are you employed?**

8 A. I am employed by QSI Consulting, Inc. ("QSI").
9

10 **Q. Please describe QSI and identify your position with the firm.**

11 A. QSI is a consulting firm specializing in the areas of telecommunications policy,
12 econometric analysis and computer aided modeling. I am a Senior Consultant
13 with QSI.
14

15 **Q. Please describe your experience with telecommunications policy issues
16 and your relevant work history.**

17 A. Prior to joining QSI, I was President of Stacy & Stacy Consulting, LLC. Like QSI,
18 Stacy & Stacy is a consulting firm providing consulting services to domestic and
19 international telecommunications carriers. During my tenure at Stacy & Stacy, I
20 testified on behalf of a number of clients in regulatory proceedings in the Western
21 United States on a wide range of subjects.
22

23 Prior to joining Stacy & Stacy, I was most recently employed by Kenetech
24 Windpower, Inc., where I was the regional manager of business and project
25 development for the Rocky Mountain Region. Prior to my tenure at Kenetech, I

1 was the Chief Economist for the Wyoming Public Service Commission. While at
2 the Wyoming PSC, I was responsible for providing the Commission with a wide
3 range of policy, economic, and technical expertise regarding telecommunications
4 and other public utility issues.

5
6 In addition to my occupational experience, I hold a Bachelor of Science degree in
7 Geology and a Master of Science degree in Public Utility and Regulatory
8 Economics from the University of Wyoming.

9
10 **Q. Have you provided testimony and other advocacy before State Utility**
11 **Commissions in the past?**

12 A. Yes. I have over the past ten (10) years provided testimony and other advocacy
13 before the state utility commissions in the following states: Arizona, Colorado,
14 Connecticut, Idaho, Montana, Nebraska, New Mexico, New York, North Dakota,
15 South Dakota, Oklahoma, Oregon, Utah, Washington and Wyoming.

16
17 **Q. What is the purpose of your testimony in this proceeding?**

18 A. The purpose of my testimony in this proceeding is to address the concerns of
19 Cleartel Communications, Inc., Florida Digital Network, Network Telephone
20 Corporation and Broadslate Networks, Inc. ("the Coalition") with regard to
21 BellSouth's proposed rates for its Unbundled Copper Loop ("UCL") and
22 Unbundled Subloop Intrabuilding Wire and Cable("INC") elements. As this
23 testimony will demonstrate, these rates have been overstated by BellSouth.

24

1 **Q. Can you summarize your testimony?**

2 **A. Yes. Based on my analysis, I have concluded that BellSouth has proposed**
3 **significantly over-inflated rates associated with Unbundled Copper Loops (A.13,**
4 **A.14)¹ and Intrabuilding Wire and Cable (A.2.14, A.2.15, A.2.19 and A.2.20).**
5 **These elements are critical for the members of the Coalition and other ALECs to**
6 **enable them to provide Florida customers access to “advanced services”. The**
7 **FCC has defined advanced services as “high-speed, switched, broadband,**
8 **wireline telecommunications capability that enables users to originate and**
9 **receive high-quality voice, data, graphics or video telecommunications using any**
10 **technology”.² Over the past few years, the FCC has aggressively sought to**
11 **promote competition in the provision of advanced services as required by Section**
12 **706 of the Telecommunications Act of 1996. State commissions such as the**
13 **Florida Public Service Commission (“FPSC”), however, continue to play an**
14 **important role in requiring incumbent local exchange carriers to make their**
15 **networks available to competitive providers on a non-discriminatory basis and at**
16 **reasonable rates to ensure that competition flourishes and Florida customers can**
17 **avail themselves of the most advanced telecommunications products. The**
18 **recommendations I make in this testimony are consistent with the FPSC**
19 **achieving that goal.**

1 These elements are referred to in BellSouth witness Caldwell's testimony as UCL-SHORT AND UCL-LONG. Presumably, this description corresponds to the 2 and 4 wire copper loop - short and 2 and 4 wire copper loop - long elements contained in the BellSouth Cost Calculator 2.3 - Element Summary Report.

² Advanced Services, First Report and Order, CC Docket no. 98-147, footnote 2.

II. Unbundled Copper Loop Nonrecurring Costs

Q. Have you had an opportunity to review the testimony filed by BellSouth regarding its proposed nonrecurring rates for an unbundled copper loop?

A. Yes. I have reviewed the testimony, exhibits and cost models filed in support of the UCL rates that BellSouth has proposed in this proceeding.

Q. Are BellSouth's UCL rates reasonable?

A. No. BellSouth's rates are significantly overstated. I have made several adjustments to BellSouth's study in order to produce rates that are consistent with TSLRIC principles.

Q. Can you describe and support your adjustments?

A. Yes. The adjustments I have made are described and supported below:

Service Inquiry Costs

Despite the fact that both federal law and this Commission have found that BellSouth must provide access to its electronic ordering and provisioning system, BellSouth's proposed nonrecurring charges for UCL include a significant amount of manual service order/inquiry time.) According to the *First Report and Order*, incumbent LECs must provide nondiscriminatory access to operations support systems functions for pre-ordering, ordering, provisioning and other elements, and were required to provide such access not later than January 1, 1997.³ Allowing CLECs access to these databases and service order processing systems in a nondiscriminatory manner will drastically reduce or largely eliminate

1 the amount of time and thus cost BellSouth claims is being devoted to both the
2 service order and service inquiry process.

3
4 Given the existence of these operational support systems, it is reasonable to
5 assume that the systems function properly and are effective. It may be
6 reasonable, however, to assume that orders will not flow through the system
7 100% of the time. In other words, at certain times, orders will not flow through
8 the system, but rather will fall out and require manual processing. Only in those
9 instances where fallout occurs will it be necessary to include the costs associated
10 with manually processing the order in computing the overall NRCs competitive
11 providers should be charged for UCLs. Therefore, the costs proposed by
12 BellSouth associated with service order/inquiry should properly be reduced by
13 multiplying the times associated with completing these tasks manually by the
14 fraction of time that orders fall out of the system. The resulting costs represent
15 the costs that BellSouth actually will incur by employing a properly functioning
16 electronic ordering and processing system, which BellSouth should have had
17 operational by 1997 and would be consistent with costs derived in a proper
18 TSLRIC analysis.

19
20 In revising BellSouth's cost model, I have assumed that orders will fall out of the
21 system 2% of the time. A 2% fallout factor is appropriate to use in this instance,
22 and assumes nothing more than an electronic system that is functioning properly
23 and efficiently. In fact, the state Commissions in Connecticut (Docket Nos. 97-04-
24 10 and 98-09-01), Michigan (Case No. U-11280 -- November, 1999) and

³ See FCC's *First Report and Order* in CC Docket No. 96-98 ¶¶ 516-528.

1 Massachusetts (Docket No. D.P.U./D.T.E. 96-73/74, 96-75, 96-83, 96-94-Phase
2 4-L Consolidated Arbitration Ruling, October 19, 1999) have ordered 2% fallout
3 factors to be applied to the entire non-recurring cost estimation process. I
4 therefore have adjusted each of the times associated with the service inquiry
5 process to reflect an operational method of processing orders by multiplying
6 BellSouth's proposed times by 2%.

7
8 **Q. Is your 2% fall out rate conservative?**

9 A. The fact that I have allowed for a fall out rate at all is conservative in light of the
10 fact that this Commission had previously required BellSouth to completely
11 remove its assumptions regarding manual intervention in the service order
12 inquiry and service order processing stages of its nonrecurring cost study.⁴
13 According to the Commission, it would be assumed that manual intervention was
14 never necessary, which clearly would reduce BellSouth's costs even further.

15
16 **Q. Please continue your description and support of the adjustments you have
17 made to the BellSouth cost studies.**

18 A.

19 100% Dispatch Costs

20 BellSouth's cost study for Unbundled Copper Loop contains a 100% dispatch to
21 connect assumption. In other words, BellSouth assumes that every time a UCL
22 is ordered by and provisioned to a CLEC, a technician will need to be dispatched
23 to the feeder/distribution interface ("FDI") for purposes of cross -connecting the
24 proper feeder wire (or "pair") to the proper distribution wire ("pair") so as to

⁴ See Florida Order PSC-99-2009-FOF-TP.

1 connect a completed circuit from the central office to the customers premises.
2 Travel and work times associated with this dispatch comprise a significant
3 component of the nonrecurring costs of provisioning UCLs. The assumption
4 contained in BellSouth's cost study that a technician will have to be dispatched
5 every time a UCL is ordered is unreasonable, serves only to inflate BellSouth's
6 costs and should be rejected by this Commission.

7
8 Moreover, while BellSouth's "100% dispatch" assumption would be highly
9 questionable even for a standard, voice grade loop (indeed, it would be
10 unreasonable in that circumstance as well), it is even less reasonable for xDSL-
11 capable loops. DSL services are attractive to customers and competitors not
12 only because they provide a higher bandwidth (faster access) connection, but
13 also because in many instances a subscriber will continue to enjoy voice service
14 and a high-bandwidth connection over the *same* access line (the same copper
15 pair) he/she is already using for voice service. Hence, DSL related services
16 often times will be provided to customers who will use those services as an
17 enhancement to, and not a substitute for, their *existing* voice, and both the voice
18 and data applications are provided over the *same existing* pair. For this reason,
19 it is reasonable to assume that the vast majority of customers who will purchase
20 competitive xDSL services that are provisioned over an UCL will be customers
21 that already have a fully operational loop running into their premises. In such
22 instances, since the pair going from the central office to the customers' premises
23 is already in place with full connectivity, it will not be necessary to dispatch a
24 technician to make a connection.

1 **Q. Given this backdrop, how unreasonable is BellSouth's assumption that a**
2 **technician will need to be dispatched 100% of the time to create a full**
3 **circuit?**

4 A. According to my colleague, Mr. McPeak, whom I understand actually served as a
5 technician for an ILEC, the need to dispatch a technician to create a UCL circuit
6 is actually the exception, not the rule. According to Mr. McPeak, it is reasonable
7 to estimate that 80% of all UCLs ordered already will be in service, and therefore
8 would not necessitate the dispatch of a technician. I therefore have adjusted
9 BellSouth's cost study to reflect the fact that the travel and other expenses
10 associated with dispatching a technician should only be collected 20% of the
11 time. To make this adjustment, I multiplied connection and travel activities in the
12 cost study by 20%.

13
14 **Q. Have you made any additional adjustments to the cost studies in order to**
15 **derive more appropriate rates?**

16 A. Yes. In addition to the adjustments described above, I have made adjustments
17 to some of the times BellSouth has relied upon to generate nonrecurring costs for
18 Unbundled Copper Loops. As I stated previously, in making these adjustments, I
19 relied on the expertise and personal experience of my colleague, Mr. McPeak.
20 The specific adjustments that I have made were to decrease the times
21 associated with dispatch activities and jumper wire cross connect activities.
22 Based upon Mr. McPeak's experience, these times were grossly overstated in
23 the cost studies.

1 **Q. Please provide a table comparing the BellSouth activity times in their cost**
2 **study with the appropriate times you used to recalculate the unbundled**
3 **copper loop rates.**

4 A. BellSouth's assumed activity times compared to the appropriate activity times are
5 summarized in Table 1, below.

6
7 TABLE 1

FUNCTION	JFC/PAYBAND	BellSouth Activity Time	Proper Activity Time
Connect & Turn-Up Test	4WXX	15 minutes	5 minutes
Connect & Turn-Up Test	411X	3.5 hours	20 minutes

8
9
10
11 **Q. Have you made adjustments to the nonrecurring costs for disconnecting**
12 **Unbundled Copper Loops?**

13 A. Yes I have. I have adjusted the nonrecurring costs for disconnect of UCLs using
14 largely the same rationale as described above. However, the times associated
15 with field visits and engineering have been completely eliminated, as these tasks
16 would not be necessary to disconnect a UCL. The only tasks relevant to
17 disconnect are service inquiry related activities, and therefore, the majority of
18 costs BellSouth attributes to the disconnection process are not appropriate.
19 Based on my assumptions that field and engineering tasks are not required for
20 disconnection, the costs associated with the disconnection of longer lines should
21 be identical to those associated with the disconnection of shorter lines. The
22 study was modified to reflect these adjustments.

1 **III. Recommended Unbundled Copper Loop Nonrecurring Rates**

2

3 **Q. Based on the adjustments you have described above, what are the**

4 **appropriate nonrecurring rates for Unbundled Copper Loops in Florida?**

5 **A.** The recommended rates for Unbundled Copper Loops are compared to the rates

6 proposed by BellSouth and summarized in Tables 2 - 5 below. These rates are

7 developed in more detail in Exhibit_MS1 - Exhibit_MS6, attached to this

8 testimony.

9

10 **TABLE 2**

ELEMENT	BellSouth Proposed Rate		Recommended Rate	
	First	Addi- onal	First	Addi- onal
2-Wire Copper Loop				
Installation				
2-Wire Copper Loop - Short	\$300.38	\$192.38	\$22.07	\$13.72
2-Wire Copper Loop - Long	\$192.33	\$109.17	\$35.38	\$10.26

12 **Table 3**

13

ELEMENT	BellSouth Proposed Rate		Recommended Rate	
	First	Addi- onal	First	Addi- onal
4-Wire Copper Loop				
Installation				
4-Wire Copper Loop - Short	\$355.69	\$239.97	\$48.60	\$33.02
4-Wire Copper Loop - Long	\$247.63	\$156.76	\$20.81	\$12.95

14

15

1 Table 4

ELEMENT	BellSouth Proposed Rate		Recommended Rate	
	First	Addi- onal	First	Addi- onal
2-Wire Copper Loop				
Disconnect				
2-Wire Copper Loop - Short	\$155.44	\$35.51	\$0.93	\$0.40
2-Wire Copper Loop - Long	\$155.44	\$35.51	\$0.93	\$0.40

4 Table 5

ELEMENT	BellSouth Proposed Rate		Recommended Rate	
	First	Addi- onal	First	Addi- onal
4-Wire Copper Loop				
Disconnect				
4-Wire Copper Loop - Short	\$171.55	\$40.07	\$0.94	\$0.41
4-Wire Copper Loop - Long	\$171.55	\$40.07	\$0.94	\$0.41

8 **Q. Recently, the United States Court of Appeals for the Eighth Circuit vacated**
 9 **and remanded FCC Rule 51.505(b)(1) regarding efficient network**
 10 **configuration. Does the decision of the Eighth Circuit affect your analysis**
 11 **and the rates you have proposed?**

12 **A.** No it does not. While I am not a lawyer, my understanding is that the Eighth
 13 Circuit found that forward looking, incremental costs are still proper, but should
 14 be based upon the costs incurred by an ILEC in providing access to and
 15 interconnection with its existing network, not a hypothetical, technologically
 16 superior network that is not yet being developed. In vacating the FCC Rule
 17 51.505(b)(1), however, I see no basis to conclude that the Eighth Circuit intended
 18 to eliminate any efficiency requirement placed on the forward-looking activities of
 19 ILECs. Rather, while arguably ILECs may, under the Eighth Circuit's decision,

1 recover those costs associated with providing access to their existing networks,
2 they still are required to provide competitive providers with access to those
3 networks in an efficient manner.
4

5 **Q. In the context of the non-recurring charge for UCLs, what results could**
6 **occur if BellSouth was no longer required to provide UCLs in an efficient**
7 **manner?**

8 A. Simply, BellSouth would have the ability to stifle competition in Florida. As I have
9 described above, BellSouth already is overstating much of its time estimates,
10 leading to over-inflated rates that I understand are cost prohibitive for ALECs,
11 including those companies for whom I am testifying. Without an efficiency
12 requirement, in those instances where the dispatch of a technician is necessary
13 to provide connectivity to an UCL, BellSouth could, in effect, opt to fly its
14 technicians to China prior to making the connection and pass through those
15 extravagant expenses to competitive providers. Clearly, this is not what the
16 Eighth Circuit intended.
17

18 **IV. Network Terminating Wire/Intrabuilding Cable**
19

20 **Q. Have you had an opportunity to review the testimony and exhibits filed by**
21 **BellSouth in this proceeding in support of how prices should be set for the**
22 **Unbundled Subloop Intrabuilding Network Cable (INC) element?**

23 A. Yes, I have.
24

1 **Q. Initially, is it your understanding that the INC product includes Network**
2 **Terminating Wire?**

3 A. Yes it is. In Attachment two of BellSouth's standard interconnection agreement,
4 it describes its Unbundled Subloop INC product as including "the facility from the
5 cross-connect device in the building equipment room up to and including the
6 point of demarcation."

7
8 **Q. Please provide your general understanding of BellSouth's position**
9 **regarding ALEC access to INC.**

10 A. It is my understanding that BellSouth would restrict access to INC facilities by
11 requiring the installation of a 25 pair capacity access terminal to be placed
12 between BellSouth's network and the ALEC's network and force the first ALEC to
13 bear all costs of such installation. Even more egregious, BellSouth proposes to
14 charge each subsequent ALEC that requests access to INC the full costs
15 charged to the original requesting ALEC.

16
17 **Q. Is BellSouth's proposed requirement to install an access terminal intended**
18 **to address issues of network security?**

19 A. BellSouth in its testimony stresses that its policy is critical to ensuring that
20 competitors don't "either intentionally or unintentionally" disrupt its customers'
21 service. BellSouth's policy apparently accomplishes this enhanced security by
22 establishing a separate/distinct point of interconnection between ALECs and its
23 network (e.g., the ALEC access terminal) and by requiring BellSouth personnel to
24 provide the cross-connect between the BellSouth network and the ALEC
25 terminal. Even though it is BellSouth who believes that the added security is

1 necessary, BellSouth also believes that the CLECs are the appropriate "cost
2 causers" associated both with the placement of an access terminal as well as
3 with the need to dispatch a BellSouth technician not only for the purposes of
4 accomplishing a cross connection to the terminal, but also for each time a loop is
5 requested by an ALEC. BellSouth's proposal results in highly overinflated rates
6 for access to INC.

7
8 **Q. To your knowledge, what prices has BellSouth proposed charging ALECs
9 in Florida for access to its INC?**

10 A. Through my discussions with Hope Colantonio of Cleartel Communications, I
11 understand that BellSouth plans to charge \$402.70 for non-recurring
12 administrative expenses, \$158.23 for each 25-pair panel installed by BellSouth,
13 an additional non-recurring cost of \$135.45 for the first pair ordered, \$38.08 for
14 each additional pair ordered, and a \$3.90 recurring charge for each pair. These
15 charges coincide with elements A.2.14, A.2.15, A.2.19, and A.2.20.

16
17 **Q. According to BellSouth's proposed rates, are all of these charges
18 assessed to an ALEC even when it orders just one pair to serve one tenant
19 in a multi-dwelling unit (MDU)?**

20 A. Yes they are. In other words, if an ALEC wants to serve one tenant in a MDU, it
21 must pay all the costs associated with the installation of an access terminal that,
22 according to BellSouth, has the capacity to serve 25 customers.

23

1 **Q. According to BellSouth's proposed rates, what charges will an ALEC have**
2 **to pay if, one week later, another customer in a MDU wants to switch its**
3 **service to an ALEC?**

4 A. If one week later another customer wants to switch its service to an ALEC,
5 BellSouth would charge that ALEC as if BellSouth needed to provision a new 25-
6 pair panel (\$402.70 and \$158.23) and as if the ALEC was ordering its first pair
7 (\$135.45).

8
9 **Q. In other words, every time an ALEC signs up a new customer and may**
10 **require an additional pair to serve that customer, that ALEC would be**
11 **required to pay all charges associated with providing access to INC?**

12 A. That is correct. BellSouth not only seeks to charge the first ALEC the full cost of
13 installing an access terminal, but then actually seeks to each subsequent ALEC
14 that orders a pair the full costs of associated with the installation of an access
15 terminal. Needless to say, this allows for duplicate recovery for BellSouth.

16
17 **Q. Does the Coalition have concerns regarding BellSouth's position?**

18 A. Yes, it does.

19 (1) The Coalition does not want to be forced to rely upon BellSouth's
20 field forces for purposes of placing each individual customer into
21 service. BellSouth's cost model assumes that for each new ALEC
22 customer, BellSouth will need to dispatch a technician to make a
23 cross connection. The Coalition members are concerned that
24 they will experience significant delays when they must rely on
25 BellSouth technicians to establish a cross-connect within a MDU.

1 These delays could significantly impact their ability to place
2 customers in service in a timely and reliable manner,

3 (2) Moreover, federal law makes clear that ALECs should not be
4 required to bear the entire financial burden associated with
5 provisioning a 25-pair panel each time it orders one pair. This is
6 particularly true in light of the belief of the Coalition that building
7 an access terminal is unnecessary and that an ALEC should not
8 pay the entire cost of dispatching a BellSouth technician to make
9 a cross-connect when the Coalition would prefer to have its own
10 technician provision the cross-connect in the first place.

11 (3) By charging every ALEC that orders a pair the full costs of
12 installing an access terminal, BellSouth may double and triple
13 recover its costs, particularly in MDUs where customers may
14 switch their service one at a time.

15
16 **Q. Please describe in greater detail, the flaws contained in BellSouth's**
17 **proposed cost model.**

18 A. BellSouth's proposed cost model should be rejected by this Commission for
19 numerous reasons. First, BellSouth assumes that it is the ALECs that are the
20 cost causers of the access terminal and the associated costs necessary to allow
21 ALECs to access the MDU. As such, according to BellSouth, the ALEC must pay
22 for all actions and equipment necessary to access INC. BellSouth further
23 believes that ALECs requesting access to INC should bear the entire costs
24 associated with the facilities, not just the facilities used by the ALEC. It is
25 BellSouth's security concerns, however, that necessitate these costs. As it is

1 BellSouth that believes it must have a separate access terminal for purposes of
2 ensuring network security, the Coalition urges the FPSC to require BellSouth to
3 at least assist in recovering the costs associated with the added security.

4
5 Moreover, each time an ALEC orders a single pair in a MDU, BellSouth seeks to
6 recover the entire costs associated with the full capacity of the installation of a
7 25-pair panel, including cross-connects, administrative expenses and non-
8 recurring charges. Shockingly, BellSouth proposes not only charging the first
9 CLEC that requires access to the INC the full costs of installation of an access
10 terminal, but also charging each subsequent ALEC request for a loop the full
11 costs associated with the installation of an access terminal. BellSouth seeks to
12 require all of the up-front costs from each ALEC despite the testimony of Mr.
13 Keith Milner that the access terminal also can serve as the single point of
14 interconnection for use by multiple carriers. See Milner testimony at 21:11-12,
15 18-20. Mr. Milner even cites to the order of the Georgia Commission, which
16 states that "BellSouth must construct a single point of interconnection that will be
17 fully accessible and suitable for use by multiple carriers." See Milner at 19:22-23.
18 Obviously, forcing each ALEC to incur the entire costs for an access terminal
19 designed to serve multiple ALECs, and to charge those costs each time an ALEC
20 seeks to order a pair to serve a new customer, would present a significant barrier
21 to entry into the Florida market for ALECs that must access INC.

22
23 **Q. Given that multiple ALECs can gain access to the MDU at this single point**
24 **of interconnection, has BellSouth appropriately calculated the rates**
25 **associated with INC?**

1 A. No, a more appropriate rate would assess charges to ALECs based on the
2 capacity actually used by the ALEC. Further, rates should be based on the
3 assumption that BellSouth, in response to an ALEC request for any number of
4 pairs, would pre-wire the entire MDU. In other words, at the time an ALEC
5 places an order for a pair, BellSouth would place a separate access terminal into
6 a MDU to which it would cross-connect all available pairs within the MDU. Then,
7 all ALECs would use this access terminal as the single point of interconnection
8 as Mr. Milner describes.

9
10 **Q. Does your proposal comport with the safety concerns expressed by**
11 **BellSouth in its testimony.**

12 A. Yes, it does. Although the Coalition does not share BellSouth's concern
13 regarding network security and believes it should be entitled to cross connect its
14 equipment directly with BellSouth's, the scenario I've described provides
15 BellSouth with absolute network security. Indeed, just as BellSouth has
16 proposed, INC would be accessed via a separate terminal to which all carriers
17 would connect their network. Moreover, BellSouth's technicians would be
18 responsible for cross-connecting INC to the access terminal such that no ALEC
19 would ever be required to directly access the BellSouth network.

20
21 **Q. You stated that the Coalition does not share BellSouth's concern regarding**
22 **network security. What is the basis for that statement?**

23 A. In preparing my testimony, I had the opportunity to speak with Sandy Fitchet, Jr.
24 who is the Vice President of Carrier Relations for CAIS Internet, a company that
25 is related to Cleartel. Mr. Fitchet informed me that he spent over 17 years in the

1 telecommunications industry, including 3 years as a policy witness for GTE. Mr.
2 Fitchet also informed me that Cleartel, CAIS and its related entities (hereinafter
3 referred to as "Cleartel") have directly connected its equipment to ILEC INC in
4 over 100 MDUs across the country with absolutely no security or network
5 problems. Moreover, when a MDU customer switches service, it is a Cleartel
6 technician that provides the connection, not a technician of an incumbent LEC
7 that would need to be dispatched every time a new customer in a MDU requires
8 service.

9
10 **Q. Are there other benefits may be realized by pre-wiring a MDU when a**
11 **BellSouth technician is dispatched for the first time?**

12 A, Yes there are. Because BellSouth will pre-wire the access terminal, ALECs
13 would not be required to await the dispatch of a BellSouth technician to connect
14 the ALEC's network to its customer each time a new customer switches services.
15 This pre-wiring would result in cost savings to all parties, not just the requesting
16 ALEC.

17
18 **Q. Are there other factors that support your opinion that it reasonable to**
19 **assume that BellSouth will "Pre-Wire" the access terminal so as to negate**
20 **the need to dispatch a BellSouth Technician every time an ALEC requests**
21 **access to a customer?**

22 A. Yes. In fact, BellSouth has committed to such terms in other jurisdictions. In
23 Georgia, for example, BellSouth committed to pre-wire cross-connections to an
24 access terminal for access by a CLEC. As stated previously, such a commitment
25 would negate the need for ALECs to await BellSouth to dispatch a technician to

1 perform a cross-connect or any other provisioning activity before the ALECs can
2 gain access to its customer. Refusing to pre-wire the access terminal would
3 result in a significant competitive disadvantage to ALECs seeking access to INC
4 in that they will suffer added costs and time delays.

5
6 **Q. Based on the above arguments, how should BellSouth's cost study be
7 adjusted?**

8 A. BellSouth unjustifiably seeks to saddle the first and each subsequent CLEC that
9 orders a pair in a MDU with the entire cost of building an access terminal.
10 BellSouth further assumes in its cost model that each ALEC must order a
11 minimum of 25 pairs. If an ALEC orders just one pair, it is responsible for the
12 costs of 25 pairs. If an ALEC orders 26 pairs, it is responsible for the payment of
13 50 pairs. As will be discussed below, this recovery mechanism is anti-
14 competitive and conflicts with federal law. I have proposed rates that would
15 require each carrier to share in the costs of constructing an access terminal
16 based upon the number of access lines or pairs each will utilize to access their
17 customers. In other words, if an ALEC orders one pair, it should be charged 1/25
18 of the costs currently proposed by BellSouth and should not be responsible for
19 the cost of the entire facility (if an ALEC orders three pairs, it would be charged
20 3/25 of the costs currently proposed by BellSouth).

21
22 **Q. Is your proposal that BellSouth recover costs on a per line basis consistent
23 with recent FCC rulings?**

24 A. Yes it is. In its *UNE Remand Order*, the FCC specifically held that its collocation
25 rules, as clarified in its *Advanced Services First Report and Order* ("Collocation

1 Order"), are applicable to any technically feasible point of interconnection,
2 including any point necessary to access subloops.⁵ In its Collocation Order, the
3 FCC found that an incumbent LEC such as BellSouth was precluded from
4 holding the first requesting ALEC responsible for the entire cost of preparing a
5 site, as BellSouth proposes here. Specifically, the FCC stated that an incumbent
6 LEC must "allocate space preparation. . . and other collocation charges on a pro-
7 rated basis so the first collocater in a particular incumbent premises will not be
8 responsible for the entire cost of site preparation."⁶ In order to ensure that the
9 first entrant into an incumbent's premises does not bear the entire cost of site
10 preparation, the FCC stated that an incumbent LEC must develop a system of
11 distributing the cost by comparing the amount of facilities actually used by a new
12 entrant with the overall expenses incurred in providing that facility. Importantly,
13 the FCC recognized that, although a state Commission could adopt more
14 stringent standards to ensure competition, at a bare minimum state Commissions
15 must determine a proper pricing methodology to ensure that incumbent LECs
16 allocate site preparation costs among new entrants. The pricing methodology I
17 have proposed in this proceeding is fair, equitable, nondiscriminatory, and
18 directly comports with the mandates of the FCC.

19
20 **Q. Are there analogs to this approach elsewhere in the TELRIC/TSLRIC**
21 **studies for other UNEs?**

22 A. Yes, there are. ILECs generally deploy a network terminal between the feeder
23 and distribution portions of their outside plant network (generally referred to as an

⁵ See *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Third Report & Order & Fourth Notice of Proposed Rulemaking FCC 99-238 at ¶¶ 210, 221..

1 “FDI” or Feeder/Distribution Interface). FDI terminals provide enhanced network
2 flexibility and maintenance opportunities that are similar (if not identical) to the
3 enhanced security and network reliability advantages espoused by BellSouth
4 with respect to the construction of a separate terminal to be used for access to
5 INC. For example, when an ALEC purchases an unbundled loop, the ALEC pays
6 only for the portion of the FDI used by the loop it is purchasing. The ALEC is not,
7 when it purchases an unbundled loop, required to pay for the entire terminal or to
8 pay BellSouth for cross-connecting all feeder and distribution cables. Each
9 ALEC pays only for the capacity of the FDI used by the single unbundled loop it
10 is purchasing. Similarly, each ALEC pays only for the labor expenses associated
11 with cross-connecting the particular feeder pair and distribution pair that
12 comprise the unbundled loop it has purchased. This is fully consistent with the
13 manner by which I am recommending that BellSouth recover expenses
14 associated with placing a similar terminal within a MDU for purposes of
15 connecting loop distribution and INC.

16
17 **Q. The FPSC, however, seemed to endorse a similar BellSouth proposal with**
18 **regard to Network Terminating Wire in the arbitration proceedings between**
19 **BellSouth and MediaOne in Docket No. 990149-TP (“MediaOne Decision”).**
20 **Are there circumstances that require the FPSC to reevaluate its previous**
21 **decision?**

22 **A.** Yes. The UNE Remand Order discussed above requires the FPSC to reconsider
23 its past decision. In the MediaOne Decision, the FPSC required MediaOne to
24 absorb the full expense of building an access terminal to access NTW, including

6 See First Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 98-147, FCC 99-48 at ¶¶ 51.

1 all labor costs. The MediaOne Decision, however, was rendered prior to the
2 issuance of the UNE Remand Order, which made crystal clear that state
3 Commissions such as the FPSC were required to pro-rate among all ALECs the
4 costs of collocation necessary to gain access to subloops. In requiring the first
5 and each additional ALEC that requests collocation in a MDU to bear all of the
6 expenses associated with that collocation, and not just the pro-rata expenses of
7 the facilities it will use, BellSouth's proposal expressly conflicts with federal law.

8
9 **Q. Does the UNE Remand Order call into question other decisions of the FPSC**
10 **that relate to this issue?**

11 A. Yes, it calls into question FPSC Rule 25-4.0345-1B, which states that the point of
12 demarcation for MDUs is the customer premises. Paragraph 169 of the UNE
13 Remand Order states quite clearly that the demarcation point "*is often, but not*
14 *always, located at the minimum point of entry ("MPOE"), which is the closest*
15 *practicable point to where the wire crosses a property line or enters a building.*"
16 The FCC recognized that in MDUs, there may be a single demarcation point for
17 the entire building or separate demarcation points for each tenant, depending on
18 factors such as the date the inside wire was installed, the local carrier's
19 reasonable and nondiscriminatory practices, and the property owner's
20 preferences. For certain data ALECs in Florida, policy dictates that the
21 demarcation point should be the MPOE or, more specifically, where the wire
22 enters a MDU. By way of example, data ALECs such as ClearTel already have
23 entered into agreements with and pay MDU owners to gain access to the wiring
24 contained in the MDU. In addition, ClearTel already purchases T1's from
25 BellSouth to deliver its high speed data to a MDU. ClearTel must pay the landlord

1 of the MDU for access to the wiring, pay BellSouth for its T1, and, then, pursuant
2 to FPSC Rule 25.4.0345-1B, duplicate its costs by paying BellSouth for access to
3 INC. The policy factors espoused by the FCC in the UNE Remand Order dictate
4 that, in Florida, the demarcation point should be where BellSouth's wire enters a
5 MDU.

6
7 **Q. Based on your conversation with members of the Coalition, what effect will**
8 **BellSouth's mechanism of cost recovery for access to INC have on**
9 **competition in Florida?**

10 A. Mr. Fitchet of Cleartel informs me that BellSouth's proposed rates for access to
11 INC in Florida are cost prohibitive. Cleartel is one of the leading providers of high
12 speed data services to MDUs in the country. In Florida, Cleartel already pays
13 BellSouth significant amounts of money for T1 access. If this Commission allows
14 BellSouth to charge competitors its proposed rates for mere access to INC, Mr.
15 Fitchet informs me that it simply would not make economic sense for Cleartel to
16 conduct business in the state of Florida.

17 **V. Recommended Intrabuilding Cable Rates**
18

19 **Q. Based on your arguments presented in the previous section, what rates do**
20 **you recommend the FPSC adopt for NTW and INC?**

21 A. As required by federal law, the proper rates associated with INC should be based
22 upon the actual facilities used by an ALEC which, in this case, would be on a per-
23 line basis. Because BellSouth has generated rates by improperly assuming that
24 an ALEC will utilize 25 pairs, the proper rate for INC, therefore, is 1/25 of what
25 has been proposed by BellSouth. Adjustments have been made to the cost

1 study to reflect the appropriate costs to be recovered for access to INC. The
2 recommended rates for INC and INC-related subloop elements are compared to
3 the rates proposed by BellSouth, and summarized in Tables 6 and 7 below.
4 These rates are developed in more detail in my exhibits attached to this
5 testimony.

Table 6

ELEMENT	BellSouth Proposed Rate		Recommended Rate
	First	Addi- onal	
Intrabuilding Network Cable			Per Line
INC			
A.2.14 - 2-Wire INC	\$13545	\$38.08	\$5.42
A.2.14 - 2-Wire INC – Disconnect	\$118.59	\$19.63	\$0.10
A.2.15 - 4-Wire INC	\$175.67	\$51.88	\$2.48
A.2.15 - 4-Wire INC – Disconnect	\$125.06	\$20.03	\$1.43

Table 7

ELEMENT	BellSouth Proposed Rate	Recommended Rate
	Unbundled Subloop Elements	NRC
A.2.19 - Per Building Equipment Room - CLEC Facility Set-Up	\$402.70	\$8.09
A.2.20 - Per Building Equipment Room - Per 25 Pair Panel Set-Up	\$158.23	\$4.05

13 **Q. Does this conclude your testimony?**

14 **A. Yes, it does.**

1 **I. Witness Introduction and Purpose of Testimony**
2

3 **Q. Please state your name and business address for the record.**

4 A. My name is Mark Stacy. My business address is as follows: QSI Consulting,
5 Inc., 5300 Meadowbrook Drive, Cheyenne, Wyoming 82009.
6

7 **Q. Are you the same Mark Stacy who filed testimony previously in this**
8 **docket?**

9 A. Yes, I am.
10

11 **Q. What is the purpose of your testimony in this proceeding?**

12 A. The purpose of my testimony in this proceeding is to address revisions BellSouth
13 has made to its cost model filed in this docket.
14

15 **Q. Did BellSouth make any significant changes to its cost models?**

16 A. Yes. Although BellSouth made several changes, the only one which impacts the
17 revisions I proposed earlier is the change to the Gross Receipts Tax Factor used
18 in the calculation of rates.
19

20 **Q. Did BellSouth's revisions impact the rates you initially recommended in**
21 **this proceeding?**

22 A. Yes. I have incorporated the change to the Gross Receipts Factor, and
23 recalculated my recommended rates to reflect BellSouth's revision (see attached
24 revised exhibits). My recommended rates are compared to BellSouth's originally
25 proposed rates and summarized below.

1 **III. Recommended Unbundled Copper Loop and Intrabuilding Cable**2 **Nonrecurring Rates**3 **TABLE 1**

ELEMENT	BellSouth Proposed Rate		Recommended Rate	
	First	Addi- onal	First	Addi- onal
2-Wire Copper Loop				
Installation				
2-Wire Copper Loop - Short	\$300.38	\$192.38	\$21.90	\$13.62
2-Wire Copper Loop - Long	\$192.33	\$109.17	\$35.10	\$10.18

5 **Table 2**

ELEMENT	BellSouth Proposed Rate		Recommended Rate	
	First	Addi- onal	First	Addi- onal
4-Wire Copper Loop				
Installation				
4-Wire Copper Loop - Short	\$355.69	\$239.97	\$48.22	\$32.76
4-Wire Copper Loop - Long	\$247.63	\$156.76	\$20.64	\$12.85

8 **Table 3**

ELEMENT	BellSouth Proposed Rate		Recommended Rate	
	First	Addi- onal	First	Addi- onal
2-Wire Copper Loop				
Disconnect				
2-Wire Copper Loop - Short	\$155.44	\$35.51	\$0.92	\$0.40
2-Wire Copper Loop - Long	\$155.44	\$35.51	\$0.93	\$0.40

11

Table 4

ELEMENT	BellSouth Proposed Rate		Recommended Rate	
	First	Addi- onal	First	Addi- onal
4-Wire Copper Loop Disconnect				
4-Wire Copper Loop - Short	\$171.55	\$40.07	\$0.94	\$0.40
4-Wire Copper Loop - Long	\$171.55	\$40.07	\$0.94	\$0.40

Table 5

ELEMENT	BellSouth Proposed Rate		Recommended Rate
	First	Addi- onal	Per Line
Intrabuilding Network Cable INC			
A.2.14 - 2-Wire INC	\$135.45	\$38.08	\$5.37
A.2.14 - 2-Wire INC – Disconnect	\$118.59	\$19.63	\$0.99
A.2.15 - 4-Wire INC	\$175.67	\$51.88	\$6.97
A.2.15 - 4-Wire INC – Disconnect	\$125.06	\$20.03	\$1.42

Table 6

ELEMENT	BellSouth Proposed Rate	Recommended Rate
Unbundled Subloop Elements	NRC	NRC
A.2.19 - Per Building Equipment Room - CLEC Facility Set-Up	\$402.70	\$8.03
A.2.20 - Per Building Equipment Room - Per 25 Pair Panel Set-Up	\$158.23	\$4.02

Q. Does this conclude your testimony?

A. Yes, it does.

1 CHAIRMAN DEASON: Okay. Now, we have
2 cross-examination in the form of a deposition?

3 MR. EDENFIELD: That's correct. At this time
4 BellSouth would move into the record the cross-examination
5 via deposition of Witness Stacy. There are no exhibits to
6 that, as well, Chairman Deason.

7 CHAIRMAN DEASON: Thank you. We have a copy of
8 that in front of us. This deposition was taken on October
9 18th, 2000. This deposition shall be inserted into the
10 record as though read, and there is no accompanying
11 exhibit.

12 MR. EDENFIELD: And that would conclude
13 BellSouth's cross-examination of Witness Stacy.

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BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION

IN RE: INVESTIGATION INTO PRICING OF
UNBUNDLED NETWORK ELEMENTS

DOCUMENT NO.
990649-TP

CROSS-EXAMINATION
OF MARK STACY

October 18, 2000
10:42 a.m.

675 West Peachtree Street, Atlanta, Georgia

Sharon A. Gabrielli, CCR-B-2002

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October 18, 2000

MARK STACY, having been first duly sworn, was
deposed and testified as follows:

CROSS-EXAMINATION

BY-MR. EDENFIELD:

Q. Mr. Stacy, I don't have a whole lot
for you. Let's Just talk about your background
for a second. You're with the same consulting
firm that Mr. McPeak is with?

A. Yes, I am.

Q. And you're out of Wyoming, I
understand it?

A. Cheyenne, Wyoming, yes.

Q. As I understand it, you're here to
testify about non-recurring costs on the
unbundled copper loop and about INC?

A. That's correct.

Q. Okay. As far as any network
assumptions you have made, is it fair to say
that they are based on Mr. McPeak's testimony
as opposed to your own personal experience?
I'm talking about times and task.

A. Yes. That input was provided to me
by Mr. McPeak.

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1 Q. And I guess what I'm getting at, is
2 it fair to say that you have never performed a
3 load coil removal or a service inquiry or any
4 of those type functions?

5 A. No, I haven't done any of those
6 things.

7 Q. Okay. Now, are you suggesting that
8 BellSouth is not providing any of the particular
9 tasks that they have put forth, or are we just
10 fighting over time?

11 A. Let me answer both parts of that
12 question. I'm not suggesting that BellSouth
13 isn't engaged in some
14 of those tasks. I am suggesting to some extent
15 that those tasks are possibly unnecessary.

16 The second part of the question was
17 are we just fighting over times. We are
18 fighting -- I think fighting not only over the
19 times, but we also have a disagreement with
20 respect to the occurrence of the tasks.

21 Q. Okay. Let's talk about fallout for
22 a second. Have you ever had any involvement
23 with developing operation support systems for
24 competitors,
25 for ALECs?

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1 A. Developing the system?

2 Q. Yes.

3 A. Developing the technology that's used
4 in the system?

5 Q. Sure.

6 A. No, I haven't.

7 Q. Have you ever utilized OSS that
8 BellSouth provides for its competitors?

9 A. No, I haven't.

10 Q. You've never submitted an order via
11 OSS to BellSouth?

12 A. No, personally, I have not.

13 Q. Do you have any experience with the
14 task that the BellSouth personnel perform upon
15 the receipt of an order? Have you ever done
16 any of that work yourself?

17 A. No, I haven't.

18 Q. Is it safe to assume that, like
19 everyone else, you've not done a time and
20 motion study or anything like that as a basis
21 for your opinions here?

22 A. I haven't done a time in motion
23 study as a basis for my opinions, although I do
24 have a basis for my
25 opinions.

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1 Q. Will you agree with me as a premise
2 that there will be situations in which manual
3 handling of an order is necessary?

4 A. Yes. In fact, my testimony reflects
5 that in certain very rare circumstances, manual
6 handling of orders is necessary.

7 Q. And for purposes of your testimony,
8 you've assumed that to be 2 percent -- or am I
9 equating fallout to be something different than
10 manual handling?

11 A. No. That's -- you're your
12 assumption is correct.

13 Q. Have you had any involvement in the
14 third-party testing docket in Florida?

15 A. No.

16 Q. And you have cited -- just so you
17 know where I am, I'm on page 5 and 6 of your
18 testimony. You have cited the Connecticut,
19 Michigan, and Massachusetts rulings that have
20 ordered 2 percent fallout factors to be applied
21 to the non-recurring costs process, estimation
22 process?

23 A. Yes.

24 Q. Are those the only Commissions in
25 the country that you're aware of that have

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1 addressed the issue of fallout, or are those
2 the only ones that have ordered 2 percent
3 fallout?

4 A. There may be others that have
5 addressed the issue.

6 Q. Are you aware of other states that
7 have addressed the issue?

8 A. Not right off the top of my head.

9 Q. Okay. Do you know whether there
10 have been some states that have ordered a
11 greater than 2 percent fallout factor to be
12 applied?

13 A. There may have been.

14 Q. Will you agree with me that there
15 are instances in which a technician will need
16 to be dispatched in order to provision a XDSL
17 order?

18 A. Yes. My testimony reflects that.
19 The difference that we have on that issue is
20 the extent to which that is necessary.

21 Q. And BellSouth has assumed that we
22 need a dispatch 100 percent of the time?

23 A. That's correct.

24 Q. And do you think it should be on a
25 percentage less than that?

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1 A. Significantly less, yes; 20 percent
2 of the time.

3 Q. How did you arrive at the 20
4 percent? Is that based on Mr. McPeak, or is
5 that something you've done independent?

6 A. Well, Mr. McPeak and I worked
7 together on developing that number. As I stated
8 in my testimony, the need to dispatch a
9 technician to establish connectivity of a line
10 is not going to be there in the vast majority
11 of instances because, as you were just
12 discussing with Mr. McPeak earlier, those lines
13 already are in existence and already hooked up
14 to the customer.

15 And so the tasks that BellSouth has
16 in its cost study associated with cross-connects
17 and those types of activities are just not
18 there because there is already connectivity.

19 As far as testing the lines goes, I
20 also think that that's -- that's not necessary
21 to dispatch a technician in most cases because
22 most of the testing that occurs can be done
23 from the central office.

24 Q. Okay. Is your opinion that if you
25 have connectivity for voice grade service and



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1 you add data service to that same line, it will
2 automatically function?

3 A. In the vast majority of cases, yes.
4 When you say automatically, you should go back,
5 I guess. Are you saying that if you have a
6 voice grade line and you're receiving voice
7 grade service over that line, that that line
8 will be suitable for XDSL service?

9 Q. Well, when you say connectivity, I
10 assume you mean working and functioning?

11 A. Yes.

12 Q. I guess what I'm getting at is, if
13 you have a working and functioning voice grade
14 line or loop and you add XDSL service in a
15 line-sharing-type arrangement, is it your opinion
16 that nothing -- it's just going to work without
17 having to do anything else to it? Or is there
18 something that's going to have to be done to
19 make XDSL and voice grade service work over the
20 same loop?

21 A. Sometimes it will be necessary to
22 make modifications to the loop, and we've
23 accounted for those times in our assumptions.

24 Q. Okay. What is your position on the
25 tasks that are needed to effectuate a

1 disconnect?

2 A. My position is similar to the
3 position that the Florida Public Service
4 Commission has taken in the past, and that's
5 that physical disconnection is rarely -- rarely
6 necessary. The adjustments that I've made
7 reflect that.

8 Q. Now, the previous Commission
9 decisions, were
10 those in conjunction with XDSL technologies?

11 A. The -- if I remember correctly, it
12 didn't specify XDSL. I believe the Commission
13 was just referring to loops in general, which
14 would include XDSL as a subset.

15 Q. If you have a line-sharing
16 arrangement and, say, the voice service is
17 provided by BellSouth and Broadslate is providing
18 the XDSL portion of that, and the customer
19 cancels its service with Broadslate, you're
20 saying that we don't -- that BellSouth does not
21 need to make a field visit or do anything, just
22 -- I mean, how do you turn it off?

23 A. The way I understand that it is done
24 is the numbers are re-programmed from the
25 central office.

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1 Q. And where do you have this
2 understanding?

3 A. From conversations I've had with
4 subject matter experts in this area.

5 Q. From which companies?

6 A. From QSI.

7 Q. Now, I assume you were trying to be
8 funny on page 12 with the reference to opting
9 to fly its technicians to China prior to making
10 the connection and pass through those extravagant
11 expenses to CLECS?

12 A. Well, I wasn't necessarily trying to
13 be funny.

14 Q. You're not suggesting that we've done
15 that, are you?

16 A. No, I'm not suggesting that. I was
17 just trying to make a point.

18 MR. SLOAN: Let the record reflect
19 that it is funny.

20 MR. EDENFIELD: I will stipulate
21 that it's funny.

22 Q. (By Mr. Edenfield) It could have
23 been funnier, but it was funny.

24 A. Sorry.

25 Q. Will you agree with me that before

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1 an ALEC can go and -- I'm trying to word this
2 delicately -- can go and manipulate or modify
3 or touch BellSouth's network, that it should
4 have an interconnection agreement in place?

5 A. I'm not sure.

6 Q. Would you agree with the premise
7 that before an ALEC should open up a BellSouth
8 cross-box and start changing customers over from
9 BellSouth to itself, that that customer -- that
10 ALEC should have an interconnection agreement in
11 place with BellSouth?

12 A. Are you just asking my opinion?

13 Q. Your opinion.

14 MR. SLOAN: I would object, in that
15 that requires a legal basis for answering and
16 it's beyond the scope of his direct, but you
17 may answer.

18 THE WITNESS: My opinion is that,
19 from what I know about interconnection
20 agreements, that would be required.

21 Q. (By Mr. Edenfield) Okay. On page
22 19 of your testimony --

23 A. Okay.

24 Q. -- you talk about Cleartel. I
25 assume CAIS is a subsidiary or some related

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1 affiliate of Cleartel?

2 A. Yes.

3 Q. Has connected to equipment in over
4 a hundred MDUs across the country. Do you
5 know whether any of those MDUs are in Florida?

6 A. I -- no, I don't know.

7 Q. Y'all didn't get into that level of
8 detail as to where in your discussion with Mr.
9 -- I'm going to botch this I'm sure --
10 Fitchet? A. I believe it's Fitchet.

11 But, no, we didn't get into that level of
12 detail. The conversation just surrounded the
13 fact that that when they have done this, that
14 there have been no catastrophic consequences or
15 any consequences whatsoever.

16 MR. EDENFIELD: That's all I've
17 got.

18 MS. CALDWELL: The staff has no
19 questions.

20 MR. EDENFIELD: Any redirect?

21 MR. SLOAN: No redirect. And I
22 think we are done.

23 (Cross-examination concluded.)

24

25 STATE OF GEORGIA:

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8 the evidence given upon said hearing, and I
9 further certify that I am not of kin or
10 counsel to the parties in the case; am not
11 in the employ of counsel for any of said
12 parties; nor am I in anywise interested in
13 the result of said case.

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1 CHAIRMAN DEASON: I believe that concludes all
2 the witnesses for which we were anticipating
3 cross-examination. The remaining witnesses were witnesses
4 which were to be stipulated into the record from the
5 beginning. We have four witnesses offered by Sprint.

6 Mr. Fons.

7 MR. FONS: Yes. Before we get to inserting the
8 testimony of Witnesses Sichter, Dickerson, McMahon, and
9 Cox into the record, based upon the stipulation of the
10 parties that they could be stipulated into the record and
11 cross-examination waived, I would like to address the
12 Phase 1 matters that were alluded to earlier.

13 As you will recall originally, Sprint was
14 participating in this proceeding both as an ILEC and a
15 CLEC. The ILEC was granted leave to withdraw. We have
16 withdrawn the cost study. But there are portions of the
17 record in Phase 1 that continue to have Sprint testimony
18 in there that addressed the ILEC issues, and we would like
19 to withdraw those portions of the transcript as well as
20 certain exhibits. And I will read that into the record
21 now if that would be appropriate.

22 CHAIRMAN DEASON: Yes, please do.

23 MR. FONS: Mr. Sichter filed testimony in Phase
24 1 addressing Phase 1 issues that we are withdrawing pages.
25 It is Volume 3 of the transcript, Pages 466 to 524. Mr.

1 Dickerson also filed testimony that addressed Phase 1
2 issues, and that was also found in Volume 3, Pages 409 to
3 464 of the transcript. Mr. Quackenbush, another Sprint
4 witness, filed testimony that was inserted in the record
5 in Volume 4 at Pages 530 to 587, and Sprint is withdrawing
6 that testimony. Mr. John Holmes also filed testimony that
7 was inserted into the record in Volume 4, Pages 589 to
8 620, and Sprint is asking that that testimony be
9 withdrawn.

10 In addition, there were certain exhibits that
11 were introduced that were both introduced by Sprint and by
12 staff that Sprint will ask to be withdrawn from the
13 record. Those will be Exhibit Number 5, Exhibit Number 8,
14 11, 22, 25, 45, 46, and 47. If you would like I can
15 identify what those exhibits encompass or we can just --

16 CHAIRMAN DEASON: No, I think exhibit number is
17 fine. Just to make sure we have got it correct, it is 5,
18 8, 11, 22, 25, 45, 46, and 47.

19 MR. FONS: That's correct.

20 CHAIRMAN DEASON: Okay. Those exhibits along
21 with the testimony as identified by Mr. Fons will be
22 withdrawn. Without objection? Hearing no objection, show
23 then that those exhibits along with the testimony shall be
24 withdrawn from the record.

25 MR. FONS: Turning now to the Phase 2, Sprint

1 has offered the testimony of James W. Sichter, which
2 consists of refiled direct testimony dated August 21,
3 2000, 27 pages, and refiled rebuttal testimony filed
4 8/21/2000, consisting of 6 pages. Sprint would ask that
5 this testimony be inserted in the record as though read.

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

8 MR. FONS: Associated with Mr. Sichter's
9 testimony were two exhibits JWS-1 and JWS-2. We would
10 like to have those marked for identification purposes.

11 CHAIRMAN DEASON: Yes. Exhibit 154.

12 MR. FONS: And Sprint would ask that Exhibit 154
13 be admitted into the record.

14 CHAIRMAN DEASON: Without objection, it shall be
15 so admitted.

16 (Exhibit 154 marked for identification and
17 admitted into the record.)

18

19

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25

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**2 **REFILED DIRECT TESTIMONY**3 **OF**4 **JAMES W. SICHTER**5
6 **Q. Please state your name and business address.**7
8 A. My name is James W. Sichter. I am Vice President-
9 Regulatory Policy, for Sprint Corporation. My
10 business address is 901 E. 104th Street, Kansas City,
11 Missouri.12
13 **Q. Please describe your educational background and work**
14 **experience.**15
16 A. I hold a B.A. in Economics from the University of
17 Kentucky (1968), a Masters in Economics from Wright
18 State University (1972), and a Masters in Public
19 Administration from the University of Missouri-Kansas
20 City (1979). I have worked for Sprint since 1973.
21 Prior to my current position, I have held several
22 positions with Sprint in the areas of costing and
23 regulatory policy, including cost analyst, revenue
24 analyst, corporate strategic planning analyst, staff
25 economist, manager-policy research, director-

1 regulatory and industry planning, director-service
2 costs, director-access planning, and assistant vice
3 president-regulatory and industry planning.

4
5 In my current position I have responsibility for
6 developing state and federal regulatory and
7 legislative policy for Sprint's Local
8 Telecommunications Division. I also serve on the
9 Executive and the Advisory Committees of the Michigan
10 State University Institute of Public Utilities. In
11 addition, I have been a member of the faculty of the
12 Michigan State University - NARUC Annual Studies
13 Program since 1985, where I have taught course
14 segments on a variety of areas, including access
15 charges, jurisdictional separations, competition, the
16 Telecom Act of 1996, and, Universal Service and Access
17 Charge Reform. In the past, I served on a number of
18 United States Telephone Association committees,
19 including chairing the USTA Policy Analysis Committee
20 (1986-1989), Price Cap Team (1987-1989), and Part 69
21 Concepts Committee (1989-1991).

22

23 **Q. Have you previously testified before state Public**
24 **Service Commissions?**

25

1 A. Yes. I have previously testified before the Florida,
2 Iowa, Kansas, Missouri, and Nevada state commissions.

3

4 **Q. What is the purpose of your testimony?**

5

6 A. The purpose of my testimony is to address on behalf of
7 Sprint Issues 1, 2, 6, 9b, 12, and 13 of the Tentative
8 List of Issues.

9

10 **Issue 1: What factors should the Commission consider in**
11 **establishing rates and charges for UNEs (including**
12 **deaveraged UNEs and UNE combinations)?**

13

14 **Q. What is the appropriate basis for the pricing of**
15 **unbundled network elements?**

16

17 A. Unbundled network element (UNE) rates should be based
18 on forward-looking economic costs. This is not only
19 the economically appropriate basis for the pricing of
20 UNEs, it is required by Section 252 (d)(1) of the
21 Telecom Act of 1996 and the FCC rules implementing
22 that section of the Act. Where economic costs vary
23 significantly, prices should be deaveraged.

24

1 **Q. What are the requirements of Section 252(d)(1) of the**
2 **Telecom Act of 1996?**

3
4 A. Section 252(d)(1) sets forth the pricing standards for
5 Interconnection and Unbundled Network Elements.
6 Specifically, it requires that rates for these
7 elements

8 (A) shall be-

9 (i) based on the cost (determined without
10 reference to a rate-of-return or other rate-based
11 proceeding) of providing the interconnection or
12 network element (whichever is applicable), and

13 (ii) nondiscriminatory, and

14 (B) may include a reasonable profit

15

16 **Q. What rules did the FCC adopt implementing that section**
17 **of the Act?**

18

19 A. In its August 8, 1996 First Report and Order in Docket
20 96-98, the FCC concluded that the Act requires that
21 prices for UNEs be set at forward-looking economic
22 costs. Specifically, the FCC adopted a version of
23 total service long run incremental costs (TSLRIC) as
24 the methodology to be used in determining the costs of
25 UNEs. The FCC refers to its methodology as Total

1 Element Long Run Incremental Costs (TELRIC),
2 nomenclature that reflects that the methodology is
3 applied to the costing of discrete network elements or
4 facilities, rather than the cost of a service or
5 services provided over that facility.

6

7 The FCC's TELRIC methodology is set forth in Part
8 51.505(b) of its Rules:

9

10 Total element long-run incremental cost. The total
11 element long-run incremental cost of an element is the
12 forward-looking cost over the long run of the total
13 quantity of the facilities and functions that are
14 directly attributable to, or reasonably identifiable
15 as incremental to, such element, calculated taking as
16 given the incumbent LEC's provision of other elements.

17

18 (1) Efficient network configuration. The total
19 element long-run incremental cost of an element should
20 be measured based on the use of the most efficient
21 telecommunications technology currently available and
22 the lowest cost network configuration, given the
23 existing location of the incumbent LEC's wire centers.

24

1 (2) Forward-looking cost of capital. The forward-
2 looking cost of capital shall be used in calculating
3 the total element long-run incremental cost of an
4 element.

5

6 (3) Depreciation rates. The depreciation rates used in
7 calculating forward-looking economic costs of elements
8 shall be economic depreciation rates."

9

10 **Q. Are there costs, other than the TELRIC costs described**
11 **above that should be included in the forward-looking**
12 **economic costs of unbundled network elements?**

13

14 A. Yes. The FCC's currently effective Rules (Part 51.505
15 (a)) define the forward-looking economic cost of an
16 unbundled network element to be the sum of TELRIC
17 costs and "...a reasonable allocation of forward-looking
18 common costs..."

19

20 **Q. Why are forward-looking economic costs the**
21 **economically appropriate basis for pricing unbundled**
22 **network elements?**

23

24 A. A fundamental objective of the Telecom Act of 1996 is
25 to open all telecommunications markets to competition.

1 Congress recognized that there are substantial
2 barriers to entry into the local exchange market. In
3 particular, the local exchange network is highly
4 capital intensive. Facility-based entrants are
5 confronted by the formidable hurdle of having to
6 devote substantial capital resources, over an extended
7 period of time, to construct a local network prior to
8 winning any customers or generating any revenues.

9
10 Section 251 of the Act provides new entrants
11 alternative avenues for entering the local exchange
12 market. First, new entrants can simply resell the
13 services of the incumbent. In other words, they can
14 win customers and gain market share without having to
15 construct any of their own network facilities. Second,
16 new entrants can obtain unbundled network elements
17 from the incumbent. This not only provides new
18 entrants more flexibility in creating services (e.g.,
19 the ability to provide expanded local calling areas),
20 but also provides a critical pricing signal for a new
21 entrant's "make or buy" decision in acquiring network
22 facilities. Simply put, new entrants will be incented
23 to build facilities where they can do so at lower
24 costs than they would pay the incumbent for the
25 equivalent network element or elements, and to buy

1 unbundled elements where the incumbent's prices for
2 those elements are lower than the new entrant's cost
3 of constructing those facilities.

4
5 The forward-looking cost standard for unbundled
6 network elements provides a measure of the costs that
7 would be incurred by an efficient supplier to provide
8 a particular network element. Correspondingly, it will
9 provide the appropriate marketplace signals to
10 competitors, creating an incentive for them to
11 construct their own facilities when they can do it
12 more efficiently than the incumbent LEC, and
13 discouraging uneconomic investment where they cannot
14 provide the facilities at a lower cost than the
15 incumbent.

16
17 Conversely, to the extent that unbundled network
18 element prices deviate from economically efficient
19 levels, they will distort infrastructure investment
20 decisions of the new entrants. If network elements are
21 priced above economic costs, it will provide an
22 incentive for competitors to deploy their own
23 facilities, even though in actuality the incumbent can
24 provide those facilities at lower costs. On the other
25 hand, if network elements are priced below economic

1 costs, it will discourage competitors from deploying
2 facilities even though they could do so at a cost that
3 is lower than the incumbent's economic costs.
4

5 **Q. What is the appropriate basis for pricing non-**
6 **recurring charges for unbundled network elements?**

7
8 A. Non-recurring charges should also be based on forward-
9 looking costs. In the first instance, the Act requires
10 unbundled network elements to be based on costs.
11 Logically, the same cost standard that applies to the
12 recurring costs of those elements should also apply to
13 the non-recurring costs associated with provisioning
14 those elements. Moreover, non-recurring costs, as well
15 as recurring costs, enter into competitors' decisions
16 to construct their own facilities or to buy unbundled
17 elements from the incumbent LEC. As discussed above,
18 the incumbent LEC's prices should be based on economic
19 costs in order to provide the appropriate pricing
20 signals for competitors in their "make or buy"
21 decisions. The benefits of setting the recurring
22 charge for unbundled network elements at forward-
23 looking economic costs would be diminished or lost if
24 non-recurring charges associated with those elements

1 were not similarly based on forward-looking economic
2 costs.

3

4 **Q. How should the forward-looking economic costs for non-**
5 **recurring charges be determined?**

6

7 A. The forward-looking costs for non-recurring charges
8 should reflect the costs that would be incurred in
9 performing those functions in relation to the forward-
10 looking network that is the basis for calculating the
11 recurring costs and rates for the unbundled network
12 element. Just like the recurring costs for an
13 efficiently designed network based on current
14 technology can differ from the embedded costs of the
15 existing network, so can the non-recurring costs
16 associated with provisioning elements in that forward-
17 looking network differ from the non-recurring costs
18 associated with provisioning elements in the existing
19 network.

20

21 **Q. What is the relationship between the pricing**
22 **requirements of the Telecom Act and rate deaveraging**
23 **for unbundled network elements?**

24

1 A. As discussed above, the Telecom Act requires that the
2 prices for unbundled network elements be cost-based,
3 and the FCC Rules define cost-based to mean forward-
4 looking economic costs (TELRIC plus a reasonable share
5 of forward-looking common costs). However, the
6 forward-looking costs of providing an element are not
7 necessarily uniform throughout an incumbent LEC's
8 service territory. For example, Sprint's unbundled
9 loop costs, including an allocation of common costs,
10 range from a low of \$8.59 a month to a high of \$149.06
11 a month, while the average in Sprint-Florida's serving
12 area is \$25.38. Although that average cost does,
13 indeed, reflect TELRIC costs, it does not follow that
14 pricing all unbundled loops in Sprint-Florida's
15 serving area at the company-wide average forward-
16 looking cost therefore meets the requirements of the
17 Act. To do so would result in unbundled loops in the
18 lowest cost areas being priced almost three times
19 their actual forward-looking costs, while unbundled
20 loops in the highest cost areas would be priced at
21 one-sixth of their forward-looking costs. Clearly,
22 prices that deviate from costs by that magnitude do
23 not meet the Act's requirement for cost-based rates
24 nor do they provide the correct marketplace signals to
25 competitors in their decision to build their own

1 facilities or buy unbundled network elements from the
2 incumbent. Thus, deaveraging of unbundled network
3 elements is necessary to avoid the pricing distortions
4 inherent in rate averaging.

5

6 **Q. What do the FCC's rules require in terms of rate**
7 **deaveraging?**

8

9 A. In Section 51.507(f) of its Rules, the FCC requires
10 that unbundled network elements be geographically
11 deaveraged into at least three cost-related zones.
12 These can be either the zones established for the
13 deaveraging of interstate transport rates, or zones
14 determined by the state commission.

15

16 **Q. What factors should the Commission consider in**
17 **establishing rates for UNE combinations?**

18

19 A. As discussed above, the governing FCC rules require
20 UNE rates to be based on forward-looking economic
21 costs. That same criteria is applicable to
22 combinations of unbundled network elements. As a
23 general principle, the rate for a UNE combination
24 should be the sum of the rates for those UNE elements
25 that comprise that combination. However, there are

1 occasions where simply summing those individual UNE
2 costs is inappropriate. For example, the local
3 switching UNE includes the cost of a line card. In the
4 case of unbundled loops provided using a Digital Loop
5 Concentrator (DLC), two line cards are included in the
6 cost of the unbundled loop—one at the DLC and one at
7 the central office terminal. When loop and switching
8 are provided in combination, only one line card is
9 required. If the UNE combination of loop and switching
10 were priced at the sum of the individual UNEs, CLECs
11 would be effectively paying for three line cards,
12 although only one line card would be used in
13 provisioning that combination. Therefore, the
14 appropriate price for that UNE combination would be
15 the sum of the loop and switching UNE rates, less the
16 costs of two line cards. The purpose of this
17 adjustment, and any deviations from the general
18 principle that UNE combinations be priced at the sum
19 of the individual UNEs included in that combination,
20 is to accurately reflect the actual forward-looking
21 costs of that UNE combination.

22

23 **Q. Are there other factors the Commission should take**
24 **into consideration in establishing rates for UNEs**
25 **(including deaveraged UNEs and UNE combinations)? For**

1 **example, incumbent LECs' retail rates are not**
2 **typically cost-based, nor are they deaveraged to any**
3 **great degree. Should that be factored into a**
4 **determination of the rates for unbundled network**
5 **elements, including deaveraged rates and rates for UNE**
6 **combinations?**

7
8 A. No. Although Sprint fully appreciates the differences
9 between existing retail rate structures and levels and
10 the rate levels and structures for unbundled network
11 elements, how these differences should be resolved is
12 equally clear to Sprint. Consistent with the mandate
13 of the Telecom Act of 1996, unbundled network elements
14 should be priced at forward-looking economic costs. To
15 the extent that retail rate levels or rate structures
16 are inconsistent with unbundled network element
17 prices, those retail rates should be restructured to
18 bring them into consistency with unbundled network
19 prices. Alternatively stated, the answer lies in
20 moving retail rates toward economic cost levels, and
21 not in introducing distortions in the pricing of
22 unbundled network elements to bring them into
23 conformance with the uneconomic pricing of incumbent
24 LEC retail services.

25

1 **Issue 2(a): What is the appropriate methodology to**
2 **deaverage UNEs and what is the appropriate rate**
3 **structure for deaveraged UNEs?**

4

5 **Q. What general principles should the Commission apply in**
6 **determining the degree to which rates for unbundled**
7 **elements are deaveraged?**

8

9 A. As a general principle, rates should be deaveraged to
10 the degree necessary to achieve a result wherein the
11 averaged rate does not deviate significantly from the
12 actual forward-looking cost of providing that element
13 anywhere within the defined zone. While it is
14 impossible to quantify with absolute precision what
15 "significant" deviations of rates from costs are,
16 Sprint believes that differences between rates and
17 costs in excess of 20% would be of sufficient
18 magnitude to potentially distort competitors'
19 investment decisions. Using that criteria, each
20 incumbent LEC should be required to construct a
21 deaveraged rate schedule such that the average rate in
22 each zone is no more than 20% higher or 20% less than
23 the forward-looking cost of providing that element.

24

1 **Q. What specific criteria should underlay this**
2 **Commission's requirements for incumbent LECs to**
3 **deaverage their unbundled network elements?**

4
5 A. Sprint would advocate the following criteria:

6
7 First, as discussed above, prices for unbundled
8 network elements should be deaveraged to the degree
9 necessary to avoid significant deviations between the
10 rate that is charged for an unbundled network element
11 and the actual forward-looking costs of providing that
12 element in a specific geographic area. This means that
13 the degree of deaveraging can vary both across
14 elements and among incumbent LECs. For example, the
15 costs of providing some unbundled network elements in
16 different geographic areas simply do not vary
17 significantly. There is little or no economic benefit,
18 therefore, in deaveraging the rates for those
19 elements. On the other hand, the forward-looking
20 economic costs of other elements can vary
21 significantly, as evidenced by the example for
22 unbundled loops cited above. Clearly, those rates
23 should be deaveraged into a sufficient number of zones
24 such that the rate for each zone does not
25 significantly deviate from the actual forward-looking

1 costs of providing that element for any area included
2 in that zone. As such, the number of zones appropriate
3 for the deaveraging of one element is not necessarily
4 the appropriate number of zones for some other
5 element, where the disparity in costs across
6 geographic areas might be substantially more or less.

7

8 Moreover, the number of zones appropriate for an
9 unbundled element of one incumbent LEC is not
10 necessarily the appropriate number of zones for that
11 same element provided by another incumbent LEC, where,
12 again, the disparity in costs of providing that
13 element could be substantially more or less.

14

15 Second, the degree of rate deaveraging should be based
16 on both administrative considerations and a realistic
17 assessment of the extent to which limited rate
18 averaging would not materially adversely impact
19 competition and investment decisions. At the extreme,
20 for example, unbundled loop costs differ almost on a
21 customer by customer basis. Customer, or location,
22 specific unbundled loop rates may meet the theoretical
23 ideal of cost-based rates, but they would equally be
24 an administrative nightmare, for both the incumbent
25 LEC as well as competitors ordering unbundled loops.

1 Nor is that degree of deaveraging necessary to provide
2 economically correct pricing signals to new entrants.
3 Typically, a competitor enters the local market with
4 the intention of serving all or a substantial segment
5 of that market, and not just one or two customers.

6
7 Some degree of averaging of unbundled element rates
8 does not necessarily distort competitors' investment
9 decisions for several reasons. First, the deviations,
10 both positive and negative, between the averaged rate
11 and the actual forward-looking costs will to some
12 extent be offsetting. Second, and most important, if
13 rates are deaveraged such that there are not
14 significant differences between the average rate and
15 the actual forward-looking costs, the impact of that
16 rate averaging will by definition be minimal and is
17 unlikely to have a material impact on a competitor's
18 investment decisions.

19
20 Third, Sprint proposes that each incumbent develop
21 forward-looking costs, for each UNE to be deaveraged,
22 on a wire center basis. Using the wire center as the
23 unit of cost analysis is reasonable for a number of
24 reasons. The wire center generally conforms to the
25 market definitions and plans of new entrants, and

1 therefore, as previously discussed, averaging costs at
2 this level is not likely to distort their entry or
3 marketing decisions. Moreover, deaveraging costs below
4 the wire center entails not only more complex cost
5 modeling, but would impose significant additional
6 costs on both incumbent LECs and competitors in
7 administering that rate structure.

8
9 Fourth, incumbent LECs should be required to group
10 wire centers into zones, and develop rates based on
11 the weighted average cost of the UNE for all wire
12 centers within each zone, subject to the constraint
13 that the average rate for a UNE zone should not
14 deviate by more than 20% from the wire center forward-
15 looking cost of that UNE for any wire center included
16 in that zone. However, it would not be unreasonable to
17 permit a wider range of deviation in the highest cost
18 zone, recognizing the larger cost variances in the
19 highest cost areas and the undesirability of creating
20 an excessive number of zones.

21
22 Sprint's proposed deaveraging methodology is intended
23 to provide a balance between cost-based rates and
24 administrative ease - both for incumbent LECs and new
25 entrants

1

2 **Issue 2(b): For which of the following UNEs should the**
3 **Commission set deaveraged rates?**

4

(1) loops (all)

5

(2) local switching

6

(3) Interoffice transport (dedicated and shared)

7

(4) other (including combinations)

8

9

Q. What unbundled network elements should be deaveraged?

10

11

A. The forward-looking economic costs for unbundled
12 loops, subloops, local switch ports and local
13 switching usage, common and dedicated transport, and
14 dark fiber all vary significantly by geographic area.
15 Therefore, Sprint believes that the rates for these
16 elements should be deaveraged.

17

18

Moreover, Sprint does not believe there are such cost
19 differences in the nonrecurring elements. Therefore,
20 Sprint does not recommend that non-recurring charges
21 be deaveraged.

22

23

Q. What unbundled network element combinations should be
24 **deaveraged?**

25

1 A. The "UNE platform" (UNE-P) and enhanced extended link
2 (EEL) combinations include unbundled elements, such as
3 loops and transport, that exhibit significant
4 geographic cost variances and, therefore, should be
5 geographically deaveraged. Correspondingly, those UNE
6 combinations should also be deaveraged.

7

8 **Issue 6: Under what circumstances, if any, is it**
9 **appropriate to recover non-recurring costs through**
10 **recurring rates?**

11

12 **Q. Do the FCC rules allow for the recovery of non-**
13 **recurring costs through recurring rates?**

14

15 A. Yes. Although the general principle is that recurring
16 costs should be recovered by recurring rates, Section
17 51.507(e) of the FCC Rules permits deviations from
18 that general principle:

19 "(e) State commissions may, where reasonable, require
20 incumbent LECs to recover nonrecurring costs through
21 recurring charges over a reasonable period of time.
22 Nonrecurring charges shall be allocated efficiently
23 among requesting telecommunications carriers, and
24 shall not permit an incumbent LEC to recover more than

1 the total forward-looking economic cost of providing
2 the applicable element."

3

4

5 **Q. Under what circumstances would it be appropriate to**
6 **recover non-recurring costs through recurring rates?**

7

8 A. To the extent that high non-recurring charges are a
9 significant barrier to competitive entry, it may be
10 appropriate to require at least a portion of those
11 non-recurring charges through recurring rates.

12

13 Absent compelling circumstances, Sprint believes that
14 non-recurring costs should be recovered through non-
15 recurring rates. Requiring non-recurring costs to be
16 recovered through recurring charges raises a number of
17 difficult policy and administrative issues. On the one
18 hand, the incumbent LEC is financially exposed if the
19 CLEC discontinues service before the non-recurring
20 costs are fully recovered. On the other hand, the
21 incumbent LEC could over-recover its non-recurring
22 costs unless it tracked each service installation and
23 reduced its recurring rate at the point where the non-
24 recurring costs built into that recurring rate were
25 fully recovered.

1

2 **Issue 9(b): Subject to the standards of the FCC's Third**
3 **Report and Order, should the Commission require ILECs to**
4 **unbundle any other elements or combinations of elements?**
5 **If so, what are they and how should they be priced?**

6

7 **Q. Will this proceeding result in the establishment of**
8 **rates for all UNEs identified in the FCC's rules?**

9

10 A. No. In its Third Report and Order in CC Docket 98-147
11 and Fourth Report and Order in CC Docket 96-98,
12 released December 9, 1999, the FCC added to its list
13 of UNEs the requirement for incumbent LECs to unbundle
14 the high frequency portion of the loop spectrum, an
15 arrangement commonly referred to as "line sharing".
16 This UNE was not included in the stipulated list of
17 UNEs for which rates would be determined in this
18 proceeding. It is Sprint's understanding that the
19 Commission will initiate a separate proceeding to
20 determine rates for this UNE.

21

22 Also, the FCC has defined Operational Support Systems
23 (OSS) as an unbundled network element. The rates for
24 OSS are being addressed in a separate proceeding, and
25 are not included in this filing.

1

2 Q. Are there any other UNEs or UNE combinations that the
3 Commission should require ILECs to unbundle in this
4 proceeding?

5

6 A. No.

7

8 Q. What are the current FCC rules pertaining to an
9 incumbent LECs obligation to combine elements?

10

11 A. Section 51.315(b) of the FCC's Rules states that
12 "Except upon request, an incumbent LEC shall not
13 separate requested network elements that the incumbent
14 LEC currently combines."

15

16 Q. How does the FCC define "currently combined"?

17

18 A. There is no question that under Section 51.315(b) an
19 incumbent LEC is required to provide, on a combined
20 basis, elements that are in fact already combined.
21 Because the issue was pending before the Eighth
22 Circuit, the FCC declined to address arguments
23 relating to the definition of "currently combined".

24

1 However, the FCC, in its Third Report and Order,
2 Docket 96-98, released November 5, 1999, para. 481,
3 left no doubt as to its belief that the obligation of
4 the incumbent LECs to recombine elements is not
5 limited to the narrow instance of when those elements
6 are already actually combined:

7 "As a general matter, however, we believe that
8 the reasoning of the Supreme Court's decision to
9 reinstate rule 51.315(b) based on the
10 nondiscrimination language of section 251(c)(3)
11 applies equally to rules 51.315(c)-(f)".

12

13 **Q. How would Sprint recommend this Commission define**
14 **currently combined?**

15

16 A. Sprint's position is that "currently combined" should
17 be defined as "ordinarily combined". That is, a
18 requesting carrier should be able to obtain any UNE
19 combination if the incumbent LEC offers, through its
20 wholesale or retail tariffs, any service that includes
21 that UNE combination. The fact that the incumbent LEC
22 combines those elements in providing services to its
23 customers is certainly evidence that the LEC is
24 currently combining those elements.

25

1 To limit the combinations available to a requesting
2 carrier to something less than the combinations that
3 the incumbent LEC routinely offers to its own end
4 users is patently anti-competitive. To do so would
5 arbitrarily deny customers the ability to purchase
6 from a competitive local exchange carrier a service
7 depending on a particular combination of elements,
8 even though the incumbent LEC offers to provide that
9 same customer that same service using those same
10 elements.

11
12 Moreover, it should be recognized that a CLEC can
13 obtain, albeit through a tortuous route, combinations
14 of elements that are not actually currently combined.
15 What the CLEC would have to do is first have the
16 customer order the service directly from the incumbent
17 LEC. The incumbent would then "combine" the elements
18 to provide the retail service. At that point, the
19 elements would be actually currently combined, and the
20 CLEC could obtain the UNE combination from the
21 incumbent LEC in order to serve that customer.

22
23 Restricting the availability of UNE combinations to
24 those combinations actually currently combined, then,
25 does not preclude a CLEC from obtaining UNE

1 combinations ordinarily combined by an incumbent LEC
2 to provide tariffed services. All that it accomplishes
3 is to increase the incumbent LEC's competitors' costs
4 and impose unnecessary delays and inconvenience on
5 both their competitors and their competitor's
6 customers.

7

8 **Issue 13: When should the recurring and non-recurring rates**
9 **and charges take effect?**

10

11 **Q. When should the UNE rates that will be determined in**
12 **this proceeding take effect?**

13

14 A. Sprint recommends that BellSouth be required to file
15 UNE rates that conform to the Commission's Order in
16 this proceeding 60 days after the release of that
17 Order. Those rates would become effective on the date
18 they are filed.

19

20 **Q. Does that conclude your testimony?**

21

22 A. Yes.

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**2 **REFILED REBUTTAL TESTIMONY**3 **OF**4 **JAMES W. SICHTER**5
6 **Q. Please state your name and business address.**7
8 A. My name is James W. Sichter. I am Vice President-
9 Regulatory Policy, for Sprint Corporation. My
10 business address is 6360 Sprint Parkway, Overland
11 Park, Kansas 66251.12
13 **Q. Are you the same James W. Sichter that presented**
14 **Direct testimony in this case?**15
16 A. Yes, I am.17
18 **Q. What is the purpose of your rebuttal testimony?**19
20 A. I will address the deaveraging proposal of BellSouth,
21 in particular their failure to deaverage switching,
22 transport, and some loop elements, and the
23 insufficient level of deaveraging for those elements
24 that they do deaverage.

25

1 **Q. BellSouth proposes deaveraged loops into three zones,**
2 **based on tariffed rate groups. Do you agree?**

3
4 A. No. In the first instance, BellSouth's tariffed rate
5 groups are not an appropriate basis for deaveraging
6 rates. As shown in Sprint's Exhibit JWS 1, BellSouth's
7 rate groups are not based on the underlying costs of
8 the wire centers within each of those rate groups.
9 Consequently, BellSouth's proposed banding includes
10 high-cost wire centers in the lowest cost band, and
11 low-cost wire centers in the higher cost bands. For
12 example, the actual wire center costs within their
13 proposed rate band 1 range from \$7.50 to \$33.27. The
14 actual wire center costs within band 2 range from
15 \$11.57 to \$115.81. And the actual wire center costs in
16 band 3 range from \$13.73 to \$75.95.

17
18 BellSouth, then, would propose to charge \$15.91 for
19 the \$33.27 loop in the wire center in band 1, but
20 would charge \$25.54 for the \$13.73 loop in the wire
21 center in rate band 3. In addition, BellSouth has two
22 wire centers whose costs are the same, \$15.59, but
23 fall into different rate bands. BellSouth proposes to
24 charge \$15.91 for loops in the wire center that falls
25 into rate band 1, and \$19.98 for loops in the wire

1 center that falls into rate band 2. Charging different
2 rates for loops that have the exact same costs, or
3 charging a rate for one loop that is higher than the
4 rate charged for a higher cost loop is both
5 discriminatory and inconsistent with the requirement
6 for cost-based unbundled network elements.

7
8 Secondly, 3 rate bands are insufficient to reflect the
9 cost variations among BellSouth wire centers. While
10 the FCC has concluded that three zones may be
11 sufficient to reflect geographic cost differences, it
12 also states that "a state may establish more than
13 three zones where cost differences in geographic
14 regions are such that it finds that additional zones
15 are needed to adequately reflect the costs of
16 interconnection and access to unbundled elements"
17 (First Report and Order, FCC Docket 96-98, released
18 August 8, 1996, Paragraph 765).

19
20 Sprint's proposed banding criteria is that the average
21 rate for a rate zone should not deviate by more than
22 20% from the wire center forward-looking cost of that
23 element for any wire center included in that zone. By
24 following Sprint's criteria, 8 zones would be required
25 to map BellSouth's proposed wire center loop costs

1 into rate zones, as set forth in Sprint's Exhibit JWS
2 2. However, Sprint would not be opposed to permitting
3 a wider range of deviation in the highest cost zone,
4 recognizing the larger cost variances in the highest
5 cost areas and the undesirability of creating an
6 excessive number of zones. (The exhibit is
7 illustrative only, and should not be construed as an
8 endorsement of BellSouth's proposed costs. Indeed, as
9 discussed in the Rebuttal Testimony of Sprint witness
10 Dickerson, there are significant flaws in BellSouth's
11 loop cost studies. The deaveraging of loop and other
12 UNE rates pursuant to Sprint's deaveraging proposal
13 should, of course, be based on the actual cost results
14 approved by this Commission).

15

16 **Q. BellSouth's witness Varner asserts that only loops**
17 **should be deaveraged. Do you agree?**

18

19 A. No. Sprint believes substantial geographic cost
20 variances exist for the following elements:

21

- Unbundled Loops

22

- Subloops

23

- Local Switch Ports/Local Switching Usage

24

- Dedicated and Common Transport

- 1 • Dark Fiber
- 2 • UNE Platform
- 3 • Enhanced Extended Link (EEL)
- 4

5 **Q. Do the BellSouth local switching costs support their**
6 **contention that the element should not be deaveraged?**

7

8 A. No. BellSouth's own data shows significant geographic
9 cost variances. For example, BellSouth's proposed wire
10 center costs per minute of use for local switching
11 range from \$.0005184 to \$.0066327, a variance of
12 almost 1200%. A variance in costs of this magnitude
13 portrays a definite need for geographic deaveraging.

14

15 **Q. Do the BellSouth cost studies support their conclusion**
16 **that transport should not be deaveraged?**

17

18 A. No. With respect to BellSouth's argument that mileage
19 captures adequate geographic variation, Sprint witness
20 Cox (pg. 3) explains that while distance is a cost
21 driver, terminal bandwidth and utilization/demand on
22 the SONET ring are the primary cost drivers, both of
23 which may vary considerably by geographic area.
24 Therefore, it is imperative to consider these

1 geographic-specific factors in order to accurately
2 depict the forward-looking cost of transport.

3

4 **Q. Does that conclude your testimony?**

5

6 **A. Yes.**

7

8

9

10

11

1 MR. FONS: Sprint also filed testimony for Kent
2 W. Dickerson consisting of refiled direct testimony dated
3 8/21/2000, 8 pages long. We would ask that that testimony
4 be inserted into the record as though read.

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

7 MR. FONS: Associated with that testimony was an
8 Exhibit KWD-1. We would like to have that marked as the
9 next exhibit for identification purposes, please.

10 CHAIRMAN DEASON: Exhibit 155.

11 MR. FONS: And we would ask that Exhibit 155 be
12 admitted into the record.

13 CHAIRMAN DEASON: Without objection it shall be
14 admitted.

15 (Exhibit 155 marked for identification and
16 admitted into the record.)

17 MR. FONS: Mr. Dickerson also filed refiled
18 rebuttal testimony dated August 21st, 2000, consisting of
19 22 pages, and we would ask that that be inserted in the
20 record as though read.

21 CHAIRMAN DEASON: Without objection it shall be
22 so inserted.

23 MR. FONS: And on August 28th, 2000, Kent W.
24 Dickerson filed additional rebuttal testimony consisting
25 of 4 pages, and we would ask that that be inserted in the

1 record as though read.

2 CHAIRMAN DEASON: Without objection it shall be
3 so inserted. Are there any exhibits to the rebuttal?

4 MR. FONS: There were none.

5
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1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**
2 **REFILED DIRECT TESTIMONY**
3 **OF**
4 **KENT W. DICKERSON**

5
6 **Q. Please state your name, business address, employer and**
7 **current position.**

8
9 A. My name is Kent W. Dickerson. My business address is 901
10 E. 104th Street, Kansas City, Missouri 64131. I am
11 employed as Director - Cost Support for Sprint/United
12 Management Company.

13
14 **Q. Could you please summarize your qualifications and work**
15 **experience?**

16
17 A. My qualifications and work experience are summarized in
18 Exhibit KWD-1.

19
20 **Q. Please describe Sprint's position on an appropriately**
21 **developed forward looking cost of service study.**

22

- 1 A. Sprint believes that the major characteristics of an
2 appropriately developed forward-looking cost of service
3 study are as follows:
- 4
- 5 1. The ILEC's prices for interconnection and unbundled
6 network elements will recover the forward-looking
7 costs directly attributable to the specified element,
8 as well as a reasonable allocation of forward-looking
9 common costs. (FCC Order, para. 682.)
- 10
- 11 2. Per-unit costs will be derived from total costs using
12 reasonably accurate "fill factors" (estimates of the
13 proportion of a facility that will be "filled" with
14 network usage); that is, the per unit costs
15 associated with a particular element must be derived
16 by dividing the total cost associated with the
17 element by a reasonable projection of the actual
18 total usage of the element. (FCC Order, para. 682.)
- 19
- 20 3. Directly attributable forward-looking costs will
21 include the incremental costs of shared facilities
22 and operations. Those costs will be attributed to
23 specific elements to the greatest extent possible.
24 Certain shared costs that have conventionally been
25 treated as common costs (or overheads) will be

1 attributed to the individual elements to the greatest
2 extent possible. (FCC Order, para. 682.)

3

4 4. Only forward-looking, incremental costs are included.
5 (FCC Order, para 690.)

6

7 5. Retailing costs, such as marketing or customer
8 billing costs associated with retail services, are
9 not attributable to the production of network
10 elements that are offered to interconnecting carriers
11 and are not included in the forward-looking direct
12 cost of an element. (FCC Order, para. 691.)

13

14 **Issue 3**

15 **What are xDSL capable loops?**

16

17 **Q. Will you please address issue 3?**

18

19 A. At the current time, xDSL capable loops are copper loops
20 that are 18,000 feet in length or shorter. To be xDSL
21 capable a loop must not contain any devices that impede
22 the xDSL frequency signaling such as repeaters, load
23 coils or excess bridged tap. Copper loops which contain

1 any of these three will require loop conditioning to
2 remove the repeaters, load coils or excess bridged tap.

3

4 **Q. Do some CLECs request xDSL capable loops in excess of**
5 **18,000 feet in length?**

6

7 A. Yes. In those cases Sprint will provide any available
8 copper loop in excess of 18,000 feet at the CLEC's
9 request. Sprint will perform any loop conditioning
10 requested by the CLEC and the CLEC will be charged for
11 that loop conditioning work. As a loop length in excess
12 of 18,000 feet is beyond the generally accepted industry
13 standard limit for xDSL, Sprint will accept no
14 responsibility for the xDSL capabilities of conditioned
15 copper loops longer than 18,000 feet.

16

17 **Q. Should a cost study for xDSL capable loops make**
18 **distinctions based on loop length and/or the particular**
19 **DSL technology to be deployed?**

20

21 A. Other than the 18,000 feet distinction described above,
22 No. As described above, copper loops 18,000 feet and
23 shorter that contain no repeaters, load coils or excess
24 bridged tap require no further cost study distinctions.

1 As described more fully in the testimony of Mr. Steve
2 McMahon, Sprint believes that there are logical
3 distinctions in the NRCs for loop conditioning depending
4 on whether the loop is longer or shorter than 18,000
5 feet. Recurring charges, however, require no distinction
6 in the underlying loop cost other than for standard
7 issues of loop length, terrain, customer density, plant
8 mix, etc..

9

10 **Q. What factors affecting deaveraged UNE loop costs**
11 **should be considered in an unbundled loop cost study?**

12

13 A. The cost of unbundled local loops varies more on a
14 geographic basis than any other UNE defined by the
15 FCC's 96-325 Order. Under the broad category of
16 physical geography, numerous factors affect the cost
17 of providing loops to a specific customer location.

18

19 Customer Density - Customer density is the single
20 largest factor impacting the cost of local loops.
21 Customer density is commonly expressed in terms of
22 customers or access lines per square mile. The density
23 of customers impacts loop cost in an inverse manner:
24 the higher the customer density, the lower the cost of
25 the local loop. This relationship is linked to a few

1 fundamental issues, the first being a trench, conduit
2 or aerial pole route is required regardless of whether
3 a 25 pair or 2400 pair cable is placed. From this it
4 is obvious the greater the customer density the more
5 customers that can be served along a feeder or
6 distribution cable route. Therefore, customer density
7 ultimately determines how many customers or loops
8 there are over which to spread the cost of digging the
9 trench, and or placing conduit or placing aerial pole
10 line.

11
12 Customer density also drives the unit cost of other
13 equipment components associated with loops. Loop
14 components such as Serving Area Interfaces (SAIs) (the
15 point of interconnection between feeder and
16 distribution cables), Digital Loop Carrier (DLC)
17 devices, Drop Terminals for example, are all similarly
18 impacted by customer density and exhibit lower per
19 unit costs as customer density increases.

20
21 Distance - The distance of a given customer location
22 from the central office directly increases loop costs
23 as the distance increases. This relationship results
24 from the obvious need to place more cable, trenches,

1 conduit and or aerial pole lines as the distance or
2 length of the loop increases. As distance increases it
3 generally increases the need for, and overall cost of,
4 maintenance. Assuming constant customer density,
5 longer cables have more splice points and resulting
6 exposure to risk. Greater number of splice points
7 means there are more areas for possible failure due to
8 lightning, water, rodents, vandalism, and accidents.

9
10 Terrain - The type of terrain in which cable is placed
11 impacts both the cost of the initial cable placement
12 and the maintenance of the cable. The cost of below-
13 ground cable construction increases as the presence
14 and hardness of rock increases. Terrain factors such
15 as the water table, trees, mountains, all affect both
16 the initial construction cost of loops and subsequent
17 maintenance expense.

18
19 Weather - The extremes of weather affect the cost of
20 maintaining cable and therefore figures significantly
21 into the type of cable placed (buried, aerial or
22 underground). The cost of maintaining aerial plant in
23 geographic areas which frequently experience ice
24 storms or tropical hurricanes is certainly greater

1 than those areas that seldom encounter these
2 conditions.

3
4 Local Market Conditions - Issues such as local zoning
5 laws requiring below-ground plant, screening and
6 landscaping around SAI and DLC sites, construction
7 permits and restrictions, heavy presence of concrete
8 and asphalt, traffic flows, and local labor costs, all
9 impact the construction and maintenance costs of loop
10 plant and will vary between locations.

11

12 **Q. Do these same factors affect the cost of unbundled**
13 **dark fiber and loop sub-elements?**

14

15 A. Yes.

16

17 **Q. Does this conclude your testimony?**

18

19 A. Yes.

1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2 **REFILED REBUTTAL TESTIMONY**

3 **OF**

4 **KENT W. DICKERSON**

5

6 **Q. Please state your name, business address, employer,**
7 **and current position.**

8

9 **A. My name is Kent W. Dickerson. My business address is**
10 **6360 Sprint Parkway, Overland Park, Kansas 66251. I**
11 **am employed as Director - Cost Support for**
12 **Sprint/United Management Company.**

13

14 **Q. Are you the same Kent W. Dickerson who filed Direct**
15 **Testimony in this proceeding?**

16

17 **A. Yes, I am.**

18

19 **Q. What is the purpose of your rebuttal testimony?**

20

21 **A. My testimony will show the errors in the costing**
22 **process BellSouth uses to develop its local loop cost**
23 **studies and high capacity loop cost studies supported**
24 **by Ms. D. Daonne Caldwell. The loop cost studies that**
25 **are in question are:**

- 1 A.1 2-wire Loops
- 2 A.2 Sub-loops
- 3 A.4 4-wire voice grade loop
- 4 A.5 ISDN digital grade loop
- 5 A.6 ADSL compatible loop
- 6 A.7 HDSL compatible loop
- 7 A.9 DS-1 4-wire Digital Loop
- 8 A.10 4-wire 19, 56, or 64 Kbps digital loop
- 9 A.13 2-wire Copper Loop
- 10 A.14 4-wire Copper Loop
- 11 A.16 High Capacity Loops

12

13 **Q. Have you reviewed BellSouth's loop cost studies?**

14

15 A. Yes, I have. Certain portions of the cost studies are
16 very specific and unique to the various wire centers
17 within the BellSouth territory while other portions
18 use broad, state-wide factors that fail to reflect
19 geographic cost differences.

20

21 **Q. Briefly describe your understanding of the process**
22 **that BellSouth uses to develop its cost studies.**

23

24 A. Based on the testimony of Ms. Caldwell and after
25 reviewing the models that BellSouth submitted, it is

1 apparent that BellSouth develops its cost studies
2 using several different models. For loops, the
3 BellSouth Telecommunications Loop Model (BSTLM) is
4 used to develop an average investment per unit, which
5 is then entered into the BellSouth Cost Calculator
6 (BSCC). Within the BSCC, inflation, In-plants, shared
7 cost, and common cost factors are applied to develop
8 monthly costs or non-recurring costs.

9

10 **Q. What areas of BellSouth's cost studies do you have**
11 **concerns with?**

12

13 A. I have concerns with several areas. First, BellSouth
14 applies an inappropriate inflation factor to an
15 average per unit cost. Second, BellSouth's In-plant
16 and structure related factors are inappropriately
17 applied.

18

19 **Q. What is your recommendation?**

20

21 A. I recommend that inflation be removed from all of
22 BellSouth's cost studies and that BellSouth use the
23 capabilities of the BSTLM to develop costs rather than
24 relying on loading factors to determine costs.

25

1 **Inflation**

2 **Q. Has BellSouth applied inflation to its costs?**

3

4 A. Yes, Ms. Caldwell discusses the Inflation Adjustment
5 Factor on pages 21-22 of her direct testimony. The
6 inflation factor is also discussed in the
7 documentation BellSouth filed on April 17, 2000.

8

9 **Q. Briefly summarize your understanding of BellSouth's**
10 **Inflation Adjustment Factor.**

11

12 A. In it's UNE studies, BellSouth uses TPI factors to
13 adjust the material accounts to reflect the effects of
14 inflation. This is presented in the BellSouth Cost
15 Calculator. Further documentation on how BellSouth
16 utilizes inflation is presented in Part D of the
17 "BellSouth Operating Expense Projection Calendar Year
18 1999-2002 - Filing Forecast." The exhibits entitled
19 Inflation Factor (I), Load Factors (J), Operating
20 Productivity Factor (K), and Growth Rate (L) of this
21 document define the three components of BellSouth's
22 Inflation Adjustment Factor. BellSouth's Inflation
23 Adjustment Factor is composed of projected inflation
24 rates based on BellSouth's telephone plant indices
25 (TPIs), productivity, and a loading factor. Inflation

1 accounts for percentage changes in Union Wages between
2 1999 and 2002, Load factors account for forecasted
3 increases in access lines in service between 1999 and
4 2002, and Operating Productivity accounts for the
5 increases in process improvements between 1999 and
6 2002. To determine the Inflation Adjustment Factor,
7 BellSouth adds the loading factor to inflation and
8 then subtracts productivity.

9

10 **Q. Is BellSouth's methodology logical?**

11

12 A. No. BellSouth inappropriately applies growth in
13 access lines to its inflation calculation. The
14 application of access line growth into an inflation
15 factor is inappropriate and illogical.

16

17 The investments/costs to which an inflation factor is
18 applied are unit costs. Access line growth appears as
19 new units - not an inflationary adjustment to unit
20 costs. Growth in access lines results in a larger
21 number of cable pairs. Some portions of this growth
22 will no doubt be served by existing aerial and
23 underground structures, feeder and distribution routes
24 thereby increasing structure cost economies of scale
25 resulting in a lower per unit cost for those customers

1 - not higher. Access line growth that is included in
2 any loading factor on unit costs means that a
3 competitor that buys a loop facility must share a
4 burden applicable to BellSouth's or another
5 competitor's growth *even if it has no growth of its*
6 *own.* If facilities grow, additional units are subject
7 to their own revenue streams. That growth should NOT
8 be arbitrarily loaded onto any unit cost.

9
10 The proper method of handling access line growth is to
11 periodically recompute unit costs using total access
12 lines. Such a cost study update would also need to
13 consider any and all technology and operational
14 changes as well. Such a cost study update may result
15 in lower, higher or constant unit costs depending in
16 part on where the line growth occurs. It can not be
17 assumed, as BellSouth has done, that access line
18 growth unilaterally increases unit costs.

19

20 **Q. What is the change in the BellSouth 2-wire Loop SL1**
21 **statewide average rate when the effects of inflation**
22 **factor are negated?**

23

24 A. Sprint recommends setting the inflation input to 1.000
25 in the BellSouth Cost Calculator, resulting in the 2-

1 Wire loop SL1 rate decreasing four percent from \$17.86
2 to \$17.10.

3

4 **Loadings**

5 **Q. Does BellSouth apply loadings for engineering and**
6 **installation ("In-Plants") and poles and conduit among**
7 **others to the per unit investments developed in the**
8 **BellSouth Telecommunications Loop Model (BSTLM) model?**

9

10 **A.** Yes. The process for applying loading is discussed in
11 Ms. Caldwell's Direct Testimony.

12

13 **Q. How are the "In-Plant" and pole and conduit factors**
14 **developed and applied in the BSCC?**

15

16 **A.** The factors are developed using state level
17 relationships of the respective loadings to all
18 applicable investments. The statewide loading factors
19 are then applied to the unit investments from the
20 BSTLM. For example, a statewide pole investment to
21 aerial cable investment factor is applied to the
22 average per unit aerial cable investment derived from
23 BSTLM.

24

1 Q. What concerns do you have with the way BellSouth
2 applies the loadings?

3

4 A. While loadings for engineering, installation, poles,
5 and conduit are certainly a necessary part of the cost
6 of a loop, the method BellSouth uses to apply the
7 loadings totally distorts the cost variance between
8 urban and rural wire centers. BellSouth's per pair
9 loadings result in the per pair costs of wire centers
10 in higher density areas to be overstated while per
11 pair costs in the rural areas are understated.

12

13 The BellSouth model assumes that as the number of
14 pairs vary, so varies the cost of poles and conduit.
15 All costs adjust at EXACTLY THE SAME RATE. Costs in
16 reality do not follow that uniform variance. The
17 BSTLM has the ability to apply the loadings in a
18 fashion that reflects reality. BellSouth should be
19 required to use its model in a manner such that the
20 resulting deaveraged costs better reflect reality.

21

22 Q. Please give some examples of how costs should vary for
23 what BellSouth describes as "loadings".

24

1 Let me first begin with an explanation of how a cable
2 route is engineered. The engineer normally starts with
3 a records review, which may be accompanied by a field
4 location visit to determine the type of terrain across
5 which the plant will be placed, any obstacles or
6 external conditions that must be taken into account,
7 and the basic route, type, and size of the facility.
8 *These work functions are generic to any size or type*
9 *of cable.* The engineer will consider such items as
10 whether streets must be opened or bored under, whether
11 rock or difficult soil will require different
12 placement techniques, whether a water obstacle is
13 present, and ultimately whether new cable should be
14 placed as underground, buried, or aerial plant. The
15 density of the area has a large impact on the number
16 and types of obstacles present. All of this activity
17 does not vary with the number of cable pairs (or
18 equivalent cable pairs) being placed, but with the
19 number and types of cable sheaths that are determined
20 necessary.

21
22 In any given section of cable, it does not cost four
23 times as much to engineer a 400 pair cable as it does
24 a 100 pair cable. Likewise, a 3200 pair cable is not
25 32 times a 100 pair cable. The engineer requires a

1 relatively small incremental difference in time to
2 note the additional pair counts and their
3 connectivity. For example, an engineer forecasts that
4 an 800 pair cable is needed in a cable route. The
5 engineer reviews maps, reviews the route, and draws
6 the route based on the factors discussed above. The
7 engineer then finds that the forecast understated the
8 future demand, and a 1200 pair cable is required
9 instead of the originally planned 800 pair cable. In
10 this instance, the engineer does not need to pull maps
11 and study them, or make another trip along the route,
12 or redraw the route. The engineering has been
13 completed; only the size of the cable need be changed
14 on the maps, which does not require any more or less
15 time. Engineering cost is most accurately matched to
16 cable sheaths, not to the number of cable pairs.
17 While costs per sheath may vary slightly, it is
18 drastically different from the linear relationship
19 BellSouth proposes.

20
21 Unfortunately, BellSouth applies a generic loading
22 factor to an average per unit investment, which
23 results in an erroneous result. In the case of a
24 fiber feeder cable serving numerous digital loop
25 carrier sites, a small fiber sheath such as a 24 fiber

1 cable may carry thousands of digital loop carrier
2 derived loops. Engineering that cable is not hundreds
3 or thousands of times the engineering cost of a 50
4 pair copper cable. The engineer does relatively the
5 same work to engineer either the 50 pair cable or the
6 24 fiber cable. Loading engineering costs equally on
7 a per pair basis (or on a per pair equivalent as in
8 the case of fiber) is incorrect.

9
10 Engineering loadings that vary by pair count or
11 equivalent pair capacity as BellSouth is proposing are
12 at significant variance from the actual engineering
13 cost relationships to cables being placed. BellSouth
14 should be required to modify its methods to more
15 accurately reflect cost. The BSTLM has the ability to
16 apply placement, structure, and engineering related
17 investments to the network built in BSTLM, but
18 BellSouth has chosen not to use its model's full
19 capability. As a result, the costs are inaccurate.

20

21 **Q. Do cost characteristics for installation or placement**
22 **costs follow a linear relationship to the number of**
23 **pairs placed?**

24

1 A. No. Installation is affected by the same factors that
2 affect engineering. As a result, the construction
3 work requirements do not vary directly with the number
4 of pairs or fibers (splicing being an exception).
5 BellSouth's In-plant factor applies an installation
6 factor to the unit cost. That logic causes
7 installation costs to vary linearly with the number of
8 pairs placed. For example, that logic would propose
9 that a 2400 pair cable has 96 times the installation
10 cost of a 25 pair cable. That is not how installation
11 costs vary. In another example, both 25 pair and 2400
12 pair 26 gauge underground cables fit into a four-inch
13 diameter conduit. The work operations to install both
14 cables including clearing and setting up the manholes,
15 and rodding the ducts, are the same. Pulling larger
16 diameter cables through the conduit will require more
17 force than that necessary with smaller diameter
18 cables, but the difference in cost does not even
19 remotely approximate the 96 fold increase applied
20 using BellSouth's per pair methodology. For buried and
21 underground plant types, placement costs vary little
22 among cable sizes. Buried cable construction
23 techniques, such as trenching, back hoe trenching, cut
24 and restore concrete, cut and restore sod, laying the
25 cable in the trench, and filling the trench vary

1 little if at all with the size of the cable placed in
2 the trench. Digging a trench for an 800 pair cable
3 does not require 32 times the effort to dig a trench
4 for a 25 pair cable. Aerial placement varies somewhat
5 from small to large cables because of the difference
6 in weight and diameter of the larger cables. The
7 application of an installation loading to a unit cost,
8 i.e. a linear cost per pair relationship, is flawed
9 and should be rejected.

10

11 **Q. Please address your concerns with the pole or conduit**
12 **loading factors used in the BSCC?**

13

14 A. First, pole cost does NOT vary in a linear
15 relationship to the number of pairs in the aerial
16 cables. It is partially impacted by cable weight and
17 cable diameter, which are a function not only of pairs
18 in the sheath, but of the gauge of the cable. Pole
19 cost is also affected by clearance requirements, the
20 slope of the ground, the wind conditions, the type of
21 ground into which the poles are placed, and changes in
22 direction, either side to side or up and down, of the
23 pole line. Placing poles down a straight street is
24 less costly than along a winding road. Poles along a
25 straight road need few, if any, anchors and guy wires.

1 Poles along a winding road need an anchor and guy wire
2 on any pole that has a significant change in cable
3 direction. Road curves can impact the spacing between
4 poles as well.

5
6 In the underground plant, a single 4" PVC duct in
7 place has the same cost regardless of whether it
8 carries a 100 pair copper cable, a 2400 pair copper
9 cable, a six strand fiber cable, or a 288 strand fiber
10 cable. The number of pair equivalents contained in
11 each of those four sheaths are drastically different.
12 The larger the capacity of the SHEATH that rides the
13 structure, the lower the **actual cost per pair** or
14 equivalent pair for the structure supporting the
15 sheath. Using the above cable sizes each in the same
16 four-inch conduit and assuming each set of four fibers
17 serves 500 digital loop carrier derived loops and the
18 cost of the duct is \$100, the number of loops provided
19 by each cable and the duct cost per loop are:

<u>Size</u>	<u>Number of loops</u>	<u>Duct Cost per loop</u>
100 pair cable	100 loops	\$1.00
2400 pair cable	2400 loops	\$0.042
6 fiber cable	500 loops	\$0.20
288 fiber cable	36000 loops	\$0.0028

20

1 So we see that the duct cost per loop varies from less
2 than a penny to one dollar. Costs are not and cannot
3 be uniform per pair.

4

5 **Q. Please summarize your concerns and recommendation**
6 **regarding BellSouth's linear per pair structure cost**
7 **loadings?**

8

9 A. BellSouth's application of a linear structure cost per
10 cable pair to all of its unbundled loops, regardless
11 of the geographic location of that loop, fails to
12 reflect one of the most basic and significant drivers
13 of geographic loop cost variances, that being customer
14 density. Customer density equates to cable size and
15 yields tremendous economies of scale on per loop
16 structure costs in highly dense urban areas vs. sparse
17 rural areas. BellSouth has attempted to apply great
18 specificity to its customer locations and network
19 design only to take major components of the total loop
20 investment and completely distort the correct unit
21 costs. The result is significantly overstated prices
22 for unbundled loops in BellSouth's urban markets where
23 the demand for unbundled loops is the greatest.

24

1 In order for accurate deaveraged prices for unbundled
2 loops to be set, BellSouth's loop cost studies must be
3 modified to reflect structure cost loadings that
4 accurately reflect an appropriate and realistic per
5 loop structure cost loading. These revised structure
6 cost loadings must properly reflect the reality of
7 decreasing structure cost per loop that follows from
8 increasing customer densities and cable sizes in
9 BellSouth's urban markets. Sprint recommends that
10 BellSouth use the capabilities within BSTLM to develop
11 costs for loops and not rely on an external to the
12 loop model erroneous per pair factor loading
13 methodology.

14

15 **High Capacity Loops**

16 **Q. What deficiencies exist in the High Capacity Loop Cost**
17 **Studies of BellSouth?**

18

19 A. Ms. Caldwell introduced the costs associated with High
20 Capacity Loops in her Direct Testimony. Minimal
21 discussion of cost methodology for BellSouth's High
22 Capacity Loop cost studies was provided. While in
23 general, the cost studies appear to be properly
24 conducted, I have concerns with the weighting factors
25 (Probability of Occurrence) used to determine the

1 frequency of occurrence of each Synchronous Optical
2 Network (SONET) Terminal type and the costs associated
3 with various High Capacity Loop bandwidths. My
4 concern is with BellSouth's development of costs for
5 DS3 level High Capacity Loops. Specifically, BellSouth
6 uses a weighting factor, which I will discuss in
7 detail, that appears to be generic, rather than state-
8 specific. The end result is rates that are higher
9 than necessary.

10

11 **Q. Were you able to verify the development of costs**
12 **appearing in Ms. Caldwell's testimony?**

13

14 **A.** To some extent, yes. Using the BellSouth Cost Model's
15 various worksheets contained in the spreadsheets for
16 High Capacity Loops (A.16 through A.16.16), as well as
17 the relational database that contains material cost
18 information, system configurations, etc., I was able
19 to determine the costing methodology used for the
20 calculation of termination costs.

21

22 BellSouth's relational database includes the cost of
23 individual transmission terminal and fiber cable
24 components based on the capacity for each cost
25 component, and varying utilizations based on the

1 different possible terminal and bandwidth
2 configurations. For example, the OC-3 Circuit Pack
3 has a specific proprietary material cost which appears
4 in the database in twelve different variations of
5 bandwidth, from DS0 to OC3, and utilizations ranging
6 from approximately 25% to 100%. No explanation is
7 provided for the equipment utilization levels within
8 the study documentation.

9
10 Within the relational databases, the individual
11 components are assembled to produce the cost of the
12 various termination equipment pieces needed for High
13 Capacity Loops: central office terminal shelves,
14 common plug-ins, other plug-ins, customer premise
15 terminal shelves, etc.

16
17 The cost of each of the items associated with High
18 Capacity Loops is then used in a spreadsheet within
19 the Cost Model. These costs are further assembled to
20 build bays, combine with interface cards, etc., and
21 are then weighted by the "Probability of Occurrence"
22 of the terminal size. The costs for OC3 terminals,
23 OC12 terminals, and OC48 terminals are then combined
24 and a weighted composite cost is generated for each

1 Digital Circuit bandwidth, in this case, DS3 circuit
2 capacity.

3

4 The weighted DS3 Digital Circuit costs are then used
5 in another spreadsheet within the Cost Model where
6 inflation, in-plant factors and supporting equipment
7 and/or power loadings are applied. The loaded,
8 weighted DS3 Digital Circuit costs, as well as the
9 cost of land, buildings, and aerial cable (building
10 entrance) are also calculated. Depreciation factors,
11 plant factors, tax factors, etc. are applied to each
12 of these to determine the direct and shared costs.

13

14 The direct and shared costs are combined, and gross
15 receipts tax and common costs applied to determine the
16 recurring TELRIC cost for a DS3 High Capacity Loop.

17

18 **Q. Do you have any concerns regarding these calculations?**

19

20 **A.** Yes. My concern is the Probabilities of Occurrence
21 that BellSouth used to determine a per DS3 cost by
22 weighting the cost of each terminal type. No source
23 material was provided for the origins of these
24 probabilities. The study references only "Network."
25 It is therefore difficult to analyze these weighting

1 factors. The percentage of occurrence of each
2 terminal type is important, because unit costs will
3 decrease in direct proportion as the size of terminal
4 used and the number of circuits provided increase.
5 Interestingly, however, the probabilities used in this
6 Florida proceeding are identical to those used by
7 BellSouth in a similar proceeding in North Carolina,
8 and possibly other state proceedings. I find it
9 difficult to believe that the probability of
10 occurrence for a particular terminal size is the same
11 for BellSouth's territory in all exchanges and all
12 states.

13
14 **Q. What do you propose as an alternative to BellSouth's**
15 **probability of occurrence factor?**

16
17 **A.** Whenever possible, state-specific data should be used.
18 Sprint developed Florida-specific weighting based on
19 terminal sizes and actual customer location data.

20
21 **Q. How did BellSouth's Florida-specific weighting factors**
22 **compare to Sprint's?**

23
24 **A.** Sprint used actual Florida location-specific DS3
25 demand data to develop probabilities of occurrence of

1 the three terminal sizes. Customers were geocoded and
2 assigned to a unique grid from a grid overlay by
3 wirecenter. Following are Sprint's Florida-specific to
4 probabilities of occurrence for each terminal type:

	<u>Sprint's Probability of Occurrence</u>
OC3	64.58%
OC12	22.92%
OC48	12.50%

5
6 The OC48 terminal types for Sprint's Florida exchanges
7 occurred in the Fort Myers, Tallahassee, and the
8 Winter Park (Orlando) areas. These are the most urban
9 areas Sprint serves in Florida and they have a
10 corresponding concentrated demand for DS3 circuits
11 resulting in the use of the larger OC-48 terminal
12 size. BellSouth has a much greater occurrence of Urban
13 Wire Centers in Florida than Sprint. Logically, I
14 would expect BellSouth's probability of occurrence of
15 DS3 circuits on OC48 systems to be much higher than
16 Sprint's, when in fact BellSouth's study uses a
17 smaller percentage.

18

19 **Q. Did you attempt to apply these weighting factors to**
20 **BellSouth's material cost calculations?**

21

1 A. Yes, I did. By simply using Sprint's probability
2 percentages, and BellSouth's actual costs and
3 spreadsheet calculations, the recurring cost for DS3
4 facility terminations for BellSouth dropped from
5 \$407.58 to \$378.63. The reason this occurs is because
6 the highest per unit DS3 costs are for OC3 terminals.
7 Using BellSouth's assumed occurrence of this
8 particular terminal size, BellSouth has overstated
9 costs. As stated earlier, BellSouth has more densely
10 populated serving areas than Sprint in the State of
11 Florida. Logically, the frequency of occurrence of
12 OC3 terminals should be lower than Sprint's. OC12 and
13 OC48 terminals are more common in larger urban and
14 suburban areas, so I would expect that by using
15 BellSouth's Florida-specific percentages, the
16 resulting costs would be even lower than illustrated
17 above using Sprint's Florida specific terminal
18 weightings. BellSouth should be required to recompute
19 their DS3 costs based on their Florida specific
20 terminal weighting that will fairly and accurately
21 reflect the economics of their dense urban markets.

22

23 **Q. Does this conclude your testimony?**

24

25 A. Yes.

1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2 SPRINT'S REBUTTAL TO BELL SOUTH'S REVISED DIRECT TESTIMONY
3 OF
4 KENT W. DICKERSON

5
6 Q. Please state your name, business address, employer and
7 current position.

8
9 A. My name is Kent W. Dickerson. My business address is
10 6360 Sprint Parkway, Overland Park, Kansas 66251. I
11 am employed as Director - Cost Support for
12 Sprint/United Management Company.

13
14 Q. Are you the same Kent W. Dickerson that submitted
15 direct and rebuttal testimony on behalf of Sprint?

16
17 A. Yes, I am.

18
19 Q. What is the purpose of your Testimony?

20
21 A. To clarify the deficiencies of the costing process
22 that BellSouth Telecommunications, Inc. (hereafter
23 referred to as "BellSouth") utilized in the completion
24 of their loop cost studies filed August 18, 2000.

DOCUMENT NUMBER-DATE

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1
FPSC-RECORDS/REPORTING

1

2 Q. Has BellSouth's cost study methodology proposed by
3 witnesses D. Daonne Caldwell changed with the revised
4 cost studies filed August 18, 2000?

5

6 A. No. As indicated in the August 18, 2000 testimony and
7 the August 7, 2000 filing, there were several changes
8 to inputs to the BellSouth Telecommunications Loop
9 Model (BSTLM) and additions to the list of elements
10 for which cost studies were developed. BellSouth used
11 the same models and methodology to develop costs.

12

13 Q. Would the same conclusions in your refiled rebuttal
14 testimony (filed August 21, 2000) still be applicable
15 with BellSouth's revised cost studies and direct
16 testimony filed August 18, 2000?

17

18 A. Yes. In reviewing BellSouth's August 18, 2000 filing,
19 the same conclusions apply as stated in my refiled
20 rebuttal testimony filed August 21, 2000.

21

22 Q. What are the conclusions from your refiled rebuttal
23 testimony filed August 21, 2000?

24

D. Stevenson
why is inflation
not necessary?
in cost studies?

1 A. BellSouth inappropriately applies inflation to its
2 cost studies. BellSouth applies inflation to its
3 material costs and to expenses. If inflation is
4 necessary in a cost study, which it is not,
5 productivity should also be included. BellSouth does
6 not apply a productivity factor when inflating the
7 material investments; thus, inappropriately over-
8 stating investment. When applying inflation to
9 expenses, BellSouth applies a productivity factor, but
10 inflates the expenses by access line growth. Access
11 line growth does not influence inflation. The result
12 of applying inflation causes costs to be overstated by
13 over four percent. Sprint recommends that BellSouth
14 be required remove the effects of inflation from its
15 cost studies.

16
17 BellSouth also uses "Inplants" that are an attempt to
18 represent the costs of installing various plant types.
19 The result of using Inplants is an inaccurate cost as
20 these factors apply a generic markup to material
21 investment. The same Inplant factors are applied
22 regardless of density or geography. The result of
23 this generic markup is an overstatement of costs in
24 urban areas and an understatement of costs in rural

1 areas. The BSTLM has the capability to account for
2 installation costs of loops; Sprint recommends
3 BellSouth use its capability.

4
5 In developing costs for high capacity loops, BellSouth
6 used probability of occurrence factors that are not
7 Florida specific or represent reality. The result
8 understates the presence of OC-48 SONET terminals,
9 overstates the presence of OC-3 SONET terminals, and
10 overstates cost. Sprint recommends that BellSouth use
11 Florida specific probability of occurrence factors in
12 a manner that accurately represents the terminals
13 utilized to provide high capacity loops.

14

15 Q. Does this conclude your testimony?

16

17 A. Yes.

1 MR. FONS: The next witness that Sprint has
2 filed prefiled testimony was Steven M. McMahon, and that
3 consists of refiled direct testimony dated August 21st,
4 2000, consisting of 14 pages. And we would ask that that
5 refiled direct testimony be inserted in record as though
6 read.

7 CHAIRMAN DEASON: Without objection it shall be
8 so inserted.

9 MR. FONS: Associated with that testimony were
10 three exhibits, and we would like to have those exhibits
11 marked for identification purposes, please.

12 CHAIRMAN DEASON: Exhibit 156.

13 MR. FONS: And we would ask that Exhibit 156
14 consisting of SMM-1, SMM-2, and SMM-3 be inserted in the
15 record, or be admitted into evidence.

16 CHAIRMAN DEASON: Without objection Exhibit 156
17 shall be admitted.

18 (Exhibit 156 marked for identification and
19 admitted into the record.)

20 MR. FONS: Mr. McMahon also prefiled refiled
21 rebuttal testimony dated August 21st, 2000, consisting of
22 20 pages, and we would ask that that refiled rebuttal
23 testimony be inserted in the record as though read.

24 CHAIRMAN DEASON: Without objection it shall be
25 so inserted.

1 MR. FONS: And associated with that refiled
2 rebuttal testimony was one exhibit, SMM-4, which we would
3 like to have marked for identification purposes, please.

4 CHAIRMAN DEASON: That shall be identified as
5 Exhibit 157.

6 MR. FONS: And we would ask that Exhibit 157 be
7 admitted in the record.

8 CHAIRMAN DEASON: Without objection it shall be
9 admitted.

10 (Exhibit 157 marked for identification and
11 admitted into the record.)

12 MR. FONS: Additionally, Mr. McMahon filed
13 additional rebuttal testimony on August 28th, 2000,
14 consisting of five pages, and we would ask that that
15 testimony be inserted in the record as though read.

16 CHAIRMAN DEASON: Without objection it shall be
17 so inserted.

18
19
20
21
22
23
24
25

- 1 **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**
- 2 **REFILED DIRECT TESTIMONY**
- 3 **OF**
- 4 **STEVEN M. MCMAHON**
- 5
- 6 **Q. Please state your name, business address, employer and**
- 7 **current position.**
- 8
- 9 A. My name is Steven M. McMahon. My business address is
- 10 6360 Sprint Parkway, Overland Park, Kansas 66251. I
- 11 am presently employed as Senior Manager-Network
- 12 Costing for Sprint/United Management Company. I am
- 13 testifying on behalf of Sprint-Florida, Inc. and
- 14 Sprint Communications L.P. (hereafter jointly referred
- 15 to as "Sprint" or the "Company").
- 16
- 17 **Q. Please describe your educational background and**
- 18 **business experience.**
- 19
- 20 A. My qualifications and business experience are
- 21 summarized in Exhibit SMM-1.
- 22
- 23 **Q. Have you testified previously before state regulatory**
- 24 **commissions?**
- 25

1 A. Yes, I have testified before state regulatory
2 commissions in Ohio and Indiana.

3

4 **Q. What is the purpose of your testimony in this**
5 **proceeding?**

6

7 A. The purpose of my testimony is to address issues #8
8 and #11 as identified in Appendix A of this
9 Commission's "Second Revised Order on Procedures"
10 issued March 16, 2000 for this proceeding. Generally,
11 I will discuss how certain "Non-Recurring Charges"
12 (NRCs) should be determined with respect to NRC cost
13 study methodology.

14

15 **Issue 8: What are the appropriate assumptions and**
16 **inputs for the following items to be used in**
17 **the forward-looking non-recurring UNE cost**
18 **studies?**

19

(a) network design;

20

(b) OSS design;

21

(c) labor rates;

22

(d) required activities;

23

(e) mix of manual versus electronic
activities;

24

25

(f) other.

1 A. The forward-looking, non-recurring UNE cost studies
2 should reflect as closely as possible the actual costs
3 incurred in performing the required activity rather
4 than developing a single "average" charge. This would
5 include the amount of time required by an efficient
6 provider to complete the activity and the cost to
7 perform the activity, using most current loaded labor
8 rates. Consequently, CLECs would pay non-recurring
9 charges that relate directly to work actually
10 performed on their behalf which, in turn, would ensure
11 that the ILEC neither over, nor under-recovers, non-
12 recurring costs.

13
14 To facilitate discussions, Exhibit SMM-2 depicts
15 typical network configurations that an ILEC encounters
16 when provisioning Unbundled Loops (UBLs). As can be
17 seen, new services are usually provisioned over Next
18 Generation Digital Loop Carrier (NGDLC) systems or via
19 copper cable pairs from the Main Distribution Frame
20 (MDF) in the Central Office (C.O.).

21
22 In conjunction with these typical facility
23 configurations, an efficient provider would develop
24 NRCs based upon the availability of "fully automated"
25 Operational Support Systems (OSS) for a CLEC to submit

1 Local Service Requests ("LSRs") to the Company. Other
2 automated processes would include order routing,
3 facility assignment, switch activation and technician
4 dispatch.

5

6 **Q. Would you describe in more detail how non-recurring**
7 **charges should be developed for unbundled network**
8 **elements?**

9

10 A. Yes. Overall, the purpose of an NRC study is to
11 determine the cost of initiating, changing and
12 providing unbundled element services for CLEC
13 customers. These charges should be based on the
14 amount of time required to complete an activity and
15 the cost of performing that activity. Current wage
16 rates and/or prices paid to contractors for performing
17 the related work activities should be utilized.

18

19 An NRC study should consist of four main steps:

20

21 1. Identifying the work activities or tasks
22 performed to complete service order,
23 installation, and other related service functions
24 for each unbundled element.

25

1 2. Identifying the work times related to performing
2 each function above.

3
4 3. Identifying the labor rates for each work group
5 that completes the activity and multiplying that
6 amount by the time identified to complete the
7 activity.

8
9 4. Grouping the costs by appropriate activities to
10 develop a cost by unbundled network element.

11
12 **Issue 11: What is the appropriate rate if any, for**
13 **line conditioning, and in what situations**
14 **should the rate apply?**

15
16 **Q. What are ILECs doing to make their voice networks**
17 **ready to support xDSL services?**

18
19 A. xDSL services are known to interfere with certain
20 other high speed data services. Sprint and other
21 ILECs are implementing plans to proactively make their
22 networks capable of supporting xDSL services. Such
23 plans include the identification and segregation of
24 particular binder groups for conflicting services.
25 Binder Groups are sub-groups of 25 cable pairs within

1 the cable. An efficient forward-looking network
2 service provider will implement such binder group
3 management plans in a proactive manner, and not on a
4 service order-by-service order basis.

5

6 **Q. Is this effort just for the benefit of Alternative**
7 **Local Exchange Companies (ALECs)?**

8

9 A. No, these efforts provide significant benefits to the
10 ILECs, the ALECs and the public, through lower costs,
11 wider availability of enhanced services and reduced
12 barriers to market entry.

13

14 **Q. What does line conditioning entail?**

15

16 A. Line Conditioning (a.k.a. Loop Conditioning) is the
17 process that may be used in conjunction with Loop
18 Qualification for the provisioning of an XDSL-capable
19 loop. After the receipt of loop make-up data, it is
20 the ALEC's option to request Loop Conditioning. This
21 includes the necessary work in the outside plant
22 needed to provide a facility that will allow for
23 transmission of high-speed digital service, such as
24 DSL. This work may include the removal of multiple
25 Load Coils, Repeaters and/or Bridged Taps.

1

2 **Q. What is the purpose of "loading" cable pairs?**

3

4 A. Load Coils are placed at regular intervals on copper
5 cable pairs that are 18,000 feet or longer. Their
6 purpose is to improve the transmission quality for
7 voice grade services on these longer pairs by reducing
8 the signal loss caused by the capacitance of the
9 telephone cable. Copper pairs that are less than
10 18,000 feet long do not have to be loaded in order to
11 provide voice grade services.

12

13 **Q. Will digital services, such as xDSL, work on a pair
14 that has Load Coils?**

15

16 A. No. Load Coils will block the transmission of digital
17 services including xDSL-based services for both
18 copper-fed and NGDLC-provisioned, xDSL-capable loops.
19 This is the reason that forward-looking networks are
20 designed with loops that are short enough to avoid the
21 need for Load Coils.

22

23 **Q. When you discuss "removing" a Load Coil or "unloading"
24 a pair, what work is actually involved?**

1

2 A. Generally, the Load Coil is not actually removed, it
3 is just disconnected from the cable pair. This
4 involves snipping off the 4 wires that connect the
5 coil to the cable pair and then reconnecting the two
6 ends of the cable pair. In larger cables, this may
7 involve removing a connector that splices twenty-five
8 pairs at a time, pulling out the Load Coil wires and
9 replacing the connector.

10

11 The actual work time involved in making the
12 connections is no more than a minute or two, but set-
13 up time can be significant, particularly when working
14 in manholes. This is why an efficient ILEC will
15 unload multiple pairs at one time when working on
16 loops under 18,000 feet in length, instead of
17 unloading only the pair required for the current
18 order.

19

20 **Q. Please explain the purpose of Repeaters in the voice**
21 **network.**

22

23 A. A repeater is generally used to amplify a signal over
24 a copper loop. Without such amplification, the signal
25 will decay over distance. Actually, the type of

1 Repeater that are found in cable plant are not used
2 for voice grade circuits. They are specialized
3 modifications to the voice network that are installed
4 to support digital services such as T1 and ISDN. The
5 existence of a repeater will interfere with xDSL
6 signals.

7

8 **Q. Please define Bridged Tap and describe it's impact on**
9 **xDSL services.**

10

11 A. Bridged Tap is any piece of the cable pair that is not
12 in the direct path between the customer and the
13 switching device. In the illustration seen on exhibit
14 SMM-3, sections "A" and "B" are considered to be
15 Bridged Tap. Bridged Tap is an issue because it
16 degrades the quality of any type of signal. This
17 issue is magnified when xDSL is placed on a loop. For
18 voice transmission on a non-loaded Revised Resistance
19 Design (RDD) cable pair, Bridged Tap cannot exceed
20 6,000 feet. Sprint's utilizes industry standard
21 Carrier Serving Area (CSA) guidelines which limits
22 total Bridged Tap to 2,500 feet, with no single
23 bridged tap may exceed 2,000 feet.

24

1 In this example, let's say that sections of the cable
2 pair "A" and "B" are both 2,000' long. So, the total
3 Bridged Tap is 4,000'. This is acceptable for voice
4 but not for xDSL. In order to be used for xDSL, we
5 would need to eliminate 1,500' of the Bridged Tap. In
6 this example, you could accomplish this by cutting the
7 pair off at the customer's location, eliminating
8 Bridged Tap "B". Only enough Bridged Tap to get the
9 total under 2,500 feet has to be removed. So it would
10 not be necessary to remove both "A" and "B".

11

12 **Q. Why does Bridged Tap exist in the embedded network?**

13

14 A. In the embedded network, there may be insufficient
15 distribution pairs to permanently assign pairs to each
16 address. A pair may be made accessible so that it
17 could potentially be used at several different
18 addresses if it were needed. This is called
19 "multiple" plant.

20

21 **Q. What work is actually involved in "removing" Bridged**
22 **Tap?**

23

24 A. As in Load Coils, no plant is actually removed. The
25 two wires of the cable pair are simply cut off and

1 capped. In splices in larger cables, this may require
2 removing a connector that splices twenty-five pairs at
3 a time, pulling out the bridged pair and replacing the
4 connector. Sprint's position is that excessive
5 Bridged Tap can be removed the majority of the time at
6 the customer's serving terminal (where the customer's
7 drop wire connects to the distribution cable).

8

9 **Q. Please describe how proposed Loop Conditioning costs**
10 **should be developed.**

11

12 A. Loop conditioning costs should be based upon current,
13 actual costs incurred by an efficient provider. For
14 Load Coil removal on loops over 18,000 feet, and all
15 Bridged Tap and Repeater removals, the costs should be
16 determined on a per location basis, dependent upon the
17 type of outside plant facilities work would need to be
18 performed in (Underground-Ug, Aerial-Ae or Buried-Bu)
19 to provision the UNE order.

20

21 This methodology would enable the recovery of costs
22 that vary with the different types of plant conditions
23 encountered when performing loop conditioning
24 activities. For instance, it is more time-consuming
25 to perform loop conditioning activities in underground

1 manholes than it is to perform the same procedures
2 within aerial or buried outside plant (OSP)
3 facilities. Unlike the aerial and buried OSP
4 environments, a single technician cannot perform (loop
5 conditioning) work activities in the underground as a
6 minimum of two laborers are required for safety
7 reasons. The time required for pumping out water and
8 purging potentially dangerous gases are also not
9 required when working in the aerial and buried OSP
10 facilities. Since manholes are many times located and
11 accessed within city streets, there are additional
12 costs associated with setting up traffic control as
13 opposed the aerial and buried environments where
14 utility trucks can usually pull off and away from the
15 roadways.

16
17 An efficient service provider's NRC cost model would
18 also assume that in both aerial and buried plant
19 facilities, the majority of cable pair access
20 locations would involve quick and easy access to the
21 cable pairs via "ready access" splice enclosures. The
22 utilization of such enclosures is common industry
23 practice - even in buried plant environments as these
24 cable pair access locations are normally brought above
25 ground into a pedestal.

1

2 There are significant labor cost differences
3 associated with accessing cable pairs as required to
4 perform loop conditioning activities when working in
5 these different OSP environments.

6

7 Perhaps most importantly, NRCs for load coil removal
8 on loops under 18,000 feet in length requires a
9 different cost study approach. Because cable pairs
10 are generally loaded in groups of 25, and are not
11 needed at all on loops less than 18,000 feet in
12 length, separate costs should be determined based upon
13 a more efficient load coil removal process. Sprint
14 considers it to be reasonable to spread the fixed
15 costs of accessing the cable pairs across all the
16 pairs that would be unloaded in a 25 pair binder
17 group. The incremental labor costs associated with
18 unloading 24 more cable pairs should be added to a
19 single engineering and travel charge and then divided
20 by 25 to determine the cost per pair for the entire
21 binder group.

22

23 ILECs that cover more urban areas, with greater
24 customer densities and larger cable sizes should
25 employ a cost model that assumes even greater

1 efficiencies, such as performing load coil removal in
2 greater quantities such as 50 or 100 pairs at a time.

3

4 **Q. Does this conclude your testimony?**

5

6 **A. Yes, it does.**

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

REFILED REBUTTAL TESTIMONY

OF

STEVEN M. MCMAHON

Q. Please state your name and business address.

A. My name is Steven M. McMahon. I am employed by Sprint/United Management Company as Senior Manager-Network Costing. My business address is 6360 Sprint Parkway, Overland Park, Kansas 66251.

Q. Are you the same Steven M. McMahon that filed direct testimony in this proceeding?

A. Yes, I am.

Q. What is the purpose of your refiled rebuttal testimony?

A. The purpose of my refiled rebuttal testimony is to respond to the direct testimony and exhibits sponsored by BellSouth Telecommunications, Inc. (BST) witnesses Alophonso J. Varner and D. Daonne Caldwell with regard to nonrecurring charges (NRCs) that BST has proposed.

1 **Q. What is Sprint's overall position with respect to the**
2 **level of non-recurring charge prices?**

3

4 A. Sprint believes that NRCs should reflect the costs an
5 efficient firm would incur in providing Unbundled
6 Network Elements (UNEs). The examples provided herein
7 will indicate that the NRCs proposed by BST do not meet
8 this test and are indeed excessive.

9

10 Specific examples to be addressed include the total
11 cumulative NRCs that an ALEC (Alternative Local
12 Exchange Company) would encounter when ordering typical
13 Unbundled Network Elements (UNEs) such as; 2-wire xDSL-
14 capable loops, Loop Conditioning, 2-wire Enhanced
15 Extended Links (EELs) and High Capacity DS3 Loops.

16

17 **Q. What are NRCs?**

18

19 A. NRCs are amounts that are assessed for one-time
20 activities performed by ILECs on behalf of ALECs which
21 involve the processing of orders and the installation
22 of UNEs.

23

24 **Q. Should the Commission anticipate that the work tasks**
25 **and work times that are the basis for non-recurring**

1 **costs to be significantly different amongst ILECs,**
2 **supporting dramatic NRC price differences?**

3

4 A. No. All ILECs are implementing fiber, copper, digital
5 loop carriers, operational support systems and other
6 forward-looking, state-of-the-art technologies and
7 processes that would require similar work tasks and
8 work times that should result in comparable NRCs.

9

10 **Q. Are there significant differences between what Sprint**
11 **considers reasonable and BellSouth's total NRCs for a**
12 **basic 2-wire xDSL-capable loop?**

13

14 A. Yes, an ALEC wishing to order a 2-wire xDSL-capable
15 loop would pay higher NRCs in BST territory than what
16 Sprint considers reasonable.

17

18 **Q. What are the main reasons for the significant price**
19 **differences between what BellSouth proposes and what**
20 **Sprint considers to be reasonable?**

21

22 A. With regards to BST, the main reasons are due to
23 inflated prices involving three of the four components
24 that make-up this scenario; 1) Loop Qualification, 2)
25 Service Order, 3) Loop Conditioning or "Loop

1 Modification" and 4) 2-wire xDSL Loop Installation.
2 Sprint concurs with BST's charges for only one of these
3 components, the Electronic Service Order NRC. The
4 other three components to this scenario each have
5 different reasons (with a common underlying theme) for
6 contributing to the overall difference. The
7 differences for each of these three components will be
8 addressed below.

9
10 **Q. Why is BellSouth's Loop Qualification non-recurring**
11 **charge of \$189.37 not considered reasonable?**

12
13 A. The main reason that this BST charge is about seven
14 times greater than it should be is primarily due to
15 excessive engineering research time. BST claims that
16 it takes 165 minutes to review the plant records.
17 Sprint's ILEC operations perform this function in only
18 35 minutes. Reference exhibit SMM-4. That is a 2 hour
19 and 10 minute discrepancy between the two companies.
20 Sprint utilizes an electronic database to research
21 Outside Plant records, and while BST's documentation
22 was not clear whether or not their records are
23 mechanized, the time estimate of 135 minutes to develop
24 a loop make-up tends to suggest that BST is still using
25 paper records. It should be noted that Sprint's 35

1 minutes for OSP engineering also includes researching
2 electrical parameter and disturber information, while
3 BST's 135 minutes does not.

4

5 **Q. Why is BellSouth's Loop Conditioning or "Loop**
6 **Modification" non-recurring charge of \$120.98 not**
7 **considered to be reasonable?**

8

9 A. There are four main reasons. First, Sprint assumes
10 that a minimum of 25 pairs, or an entire binder group,
11 would be conditioned for load coil removal at the same
12 time. BST only assumes 10 pairs at a time. However,
13 performing this work on only 10 pairs at a time is
14 inconsistent with the fact that cable pairs are
15 normally grouped in 25 pair binders. This not only
16 aids the technicians who must find specific cable pairs
17 within large cable sheaths but also facilitates the
18 administration of cables/pairs. All ILECs are
19 implementing cable spectrum management plans that
20 reserve selected binder groups for (retail and
21 wholesale) high speed data services that must be free
22 of inhibitors. Such cable pair management plans are
23 done at the binder group level for ease of
24 administration and because some inhibitors cannot be
25 located in adjacent binder groups. Since BST has

1 greater densities, larger cable sizes and the retail
2 economical need to perform such activities on an even
3 greater number of pairs at one time than more rural
4 ILECs, one would expect that BST would perform this
5 loop conditioning function on a minimum of 50 or 100
6 pairs at a time.

7

8 **Q. Are load coils required to provide quality voice-grade**
9 **service?**

10

11 A. Generally, load coils are not required for any loops
12 that are shorter than 18kf. However, they are required
13 to provide standard voice-grade service to customers
14 locations beyond 18kf. Therefore, Sprint's position is
15 that load coils ought to be removed in bulk from all
16 loops that are shorter than 18kf (i.e. at a minimum of
17 25 pairs at a time) and left in-place on loops longer
18 than 18kf. This would enable any ILEC to efficiently
19 minimize costs associated with load coil removal.

20

21 **Q. Are there reasons why BellSouth should, in reality, be**
22 **removing load coils at every opportunity presented?**

23

24 A. If for no other reason than to support its own sizable
25 marketing roll-out of its own retail DSL service

1 offering, it is unlikely that BST engineering and
2 operations are implementing loop conditioning for only
3 10 pairs at a time. BST's own website noted that plant
4 investments were being made to significantly increase
5 the number of telephone lines that meet the technical
6 specifications. It seems intuitive that in order to
7 meet their own marketing initiatives that the telephone
8 plant would be conditioned in a more efficient manner,
9 such as conditioning entire 50 and/or 100 pair binder
10 groups at a time.

11

12 **Q. For the 10 loops at time that the BellSouth cost model**
13 **assumes, are an appropriate number allocated to ALECs?**

14

15 A. Absolutely not. BST makes adjustments that allocate
16 costs for 6 of every 10 loops conditioned to ALECs.
17 BST's Unbundled Loop Modification Recovery Cost Study
18 input file states *"Of the 10 lines being conditioned on*
19 *a field visit; 2 will be recovered through (other) UNE*
20 *applications, 4 from BST; and 4 leftover."* The "4
21 leftover" are used in the XDSL loop calculations and
22 two others will be charged to ALECs when they order the
23 other two UNEs that require conditioning. The BST
24 study assumes that ALECs will be experiencing total
25 penetration of 60% in BST territory within the near

1 future. This level of assumed ALEC market penetration
2 is questionable at best.

3

4 A more proper methodology would be to determine the
5 loop conditioning costs on a unit (cable pair) basis.
6 Then, whoever uses the "modified" cable pair would bear
7 the cost of conditioning. This approach works fairly
8 across all market share penetrations ranging from 0% to
9 100%.

10

11 **Q. What is the second main reason that BellSouth's "Loop**
12 **Modification" non-recurring charge of \$120.98 is not**
13 **considered reasonable?**

14

15 A. The second major reason is because Sprint pays
16 significantly less to splicing contractors to perform
17 the same work activities in the State of Florida than
18 what the BST model generates based upon BST work time
19 estimates.

20

21 **Q. Can you provide an "apples-to-apples" example of a**
22 **specific work activity that validates this notion?**

23

24 A. Yes. A specific example is seen with load coil removal.
25 To perform this activity, there are three main

1 functions, 1) Set-up, 2) Open and Close Splice
2 Enclosure and 3) Deload cable pairs. While there are
3 cost differences involving the first two functions as
4 well, this example focuses on the third function only;
5 the actual "deloading" of the cable pairs.
6
7 Sprint is paying contractors at a much lesser cost to
8 perform these same work activities in the state of
9 Florida than what BST claims it costs to utilize its
10 own workforces. Sprint pays contractors an average of
11 \$3.06 per cable pair for this activity in underground
12 plant and an average of \$1.61 per cable pair when in
13 aerial or buried plant. The BST cost model allots 1.5
14 hours for the same work in all three OSP environments.
15 Assuming BST's average "Cable Splicer" labor rate is
16 \$44.06 per hour, one can see why Sprint considers BST's
17 charges excessive. Sprint pays contractors an average
18 of \$1.61 to deload a cable pair in aerial and buried
19 plant while the BST cost model allocates something
20 closer to \$6.61 per cable pair ($44.06 \times 1.5 \text{ hrs} / 10$).
21 This difference is less dramatic when working in
22 underground plant (\$3.06 vs. \$6.61), but is still
23 significant.
24

1 **Q. When you discuss "removing" a load coil or "unloading"**
2 **a pair, what work is actually involved?**

3
4 A. Generally, the load coil is not actually removed, it is
5 just disconnected from the cable pair. This involves
6 snipping off the 4 wires that connect the coil to the
7 cable pair and then reconnecting the two ends of the
8 cable pair. In larger cables, this generally requires
9 removing a connector that splices twenty-five pairs at
10 a time, pulling out the load coil wires and replacing
11 the connector. The actual work time involved in making
12 the connections is no more than a minute or two, but
13 set-up time can be significant, particularly when
14 working in manholes. This is why Sprint prefers to
15 unload a minimum of 25 pairs at one time, instead of
16 unloading only 10. It is far more efficient.

17
18 **Q. Can you provide another example of a specific work**
19 **activity that validates the notion that BellSouth has**
20 **utilized inflated work times in their non-recurring**
21 **cost model?**

22
23 A. Yes. Another example involves bridged tap removal.
24 Again, we will ignore, for the moment, the cost
25 differences that involve set-up time and opening and

1 closing the splice enclosure, and focus on the specific
2 work function of removing bridged tap. BST allots 45
3 minutes for their technicians to remove bridged tap
4 (snip two wires). This equates to roughly \$4.50 per
5 pair as the BST model assumes 10 are removed at the
6 same time. For this same work function, Sprint pays
7 contractors an average of 45 cents per pair in
8 underground plant and 39 cents per pair in aerial and
9 buried plant.

10

11 **Q. What work is actually involved in "removing" bridged**
12 **tap?**

13

14 A. As with load coils, no plant is actually removed. The
15 two wires of the cable pair are simply cut off and
16 capped. In splices in larger cables, this may require
17 removing a connector that splices twenty-five pairs at
18 a time, pulling out the bridged pair and replacing the
19 connector.

20

21 **Q. What about BellSouth's assumptions regarding the**
22 **locations for removing bridged tap?**

23

24 A. BST has assumed that 3 bridged taps would always need
25 to be removed and assumed that 33% of bridged tap would

1 need to be removed in manholes. However, most bridged
2 taps occur in distribution plant where there is
3 primarily aerial and buried cable and very little
4 underground cable. Cable pairs are very rarely bridged
5 in the feeder plant where most underground cable
6 occurs, precisely to avoid the high cost of re-entering
7 those manhole splices.

8
9 The fact is that virtually all bridged tap removal
10 could be done in aerial or buried cable, at far less
11 cost. In the few instances in which cable pairs are
12 bridged in a manhole splice, it is very likely that the
13 pair could be trimmed at the point at which it leaves
14 the conduit system and becomes aerial or buried for
15 distribution. This would be far less costly than
16 opening a splice in a manhole.

17
18 Furthermore, cutting off the pair at the serving
19 terminal at the same time that the xDSL service is
20 installed would bring many loops into compliance at
21 very little incremental cost. Cutting off the pair at
22 the serving terminal is a common practice. That is,
23 the technician could remove the bridged tap while doing
24 the connection of the xDSL loop to the customer's drop.
25 This would eliminate a separate trip, separate set-up

1 time and separate tear-down time. The only additional
2 time would be the few minutes that it would take to cut
3 the wires or remove them from the connector.

4

5 **Q. What is the third reason that BellSouth's "Loop**
6 **Modification" non-recurring charge of \$120.98 is**
7 **considered unreasonable?**

8

9 A. The third, main reason is because BST's costs are not
10 based upon realistic underground, buried and aerial
11 plant mix factors. Sprint researched its Outside Plant
12 records in the State of Florida to determine the
13 frequency that work would need to be performed in each
14 of these environments at the first two load points.
15 Sprint found that the first load point is within
16 underground plant 59.2% of the time. The second load
17 point was found to be in underground plant 51.6% of the
18 time. These percentages do not support BST's 90%
19 underground assumption utilized in the BST cost model.

20

21 **Q. How does plant mix impact non-recurring costs?**

22

23 A. The costs associated with accessing cable pairs is
24 significantly higher when technicians need to obtain
25 such access in underground outside plant facilities

1 (manholes) versus aerial/buried OSP environments. For
2 instance, it is more time-consuming to enter a manhole
3 to perform loop conditioning activities than it is to
4 perform the same procedures within aerial or buried OSP
5 facilities. This is largely due to the fact that
6 manhole work must be performed by a minimum of 2
7 technicians for safety reasons. Additionally, such
8 underground facilities must be ventilated to be purged
9 of potentially dangerous gases and often need to be
10 pumped out for water. Alternatively, these activities
11 are not required when working in aerial and/or buried
12 OSP facilities and usually only one technician is
13 required. Even with a buried OSP environment, the
14 locations requiring cable pair access (i.e. splices and
15 terminals) are usually brought up out of the ground
16 into a pedestal for easy access.

17

18 **Q. Are BellSouth's load point assumptions reasonable and**
19 **consistent with realistic network designs?**

20

21 A. No. BST makes no acknowledgement of plant mix
22 differences between load points #1 and #2. The fact is
23 that load point #2 will be found to be in aerial and
24 buried plant more often than load point #1. Sprint's

1 Outside Plant record research efforts validate this
2 conclusion.

3
4 Additionally, BST provides no explanation as to why
5 their cost model assumes that 2.1 load point locations
6 would exist. It would be inconsistent with standard
7 OSP Engineering rules for customer end sections to be
8 located within 3,000 feet from a load point.
9 Therefore, load point #3, normally at around 15kf,
10 should not be considered or included in any loop
11 conditioning costing equations for loops that are
12 shorter than 18kf in length.

13

14 **Q. What is the forth major reason that BellSouth's "Loop**
15 **Modification" non-recurring charge of \$120.98 is**
16 **considered unreasonable?**

17

18 A. The forth major reason is because BST assumes that
19 42.79% of DSL loops would require "modification". This
20 assumption is not supported by the results of Sprint's
21 Outside Plant records research. Sprint found that only
22 3.2% of its loops less than 18,000 feet in length would
23 require the removal of load coils. Again, Sprint's
24 loop conditioning plant mix is based upon actual
25 information per Outside Plant records researched in the

1 State of Florida. One would expect that BST would have
2 even fewer loaded loops than Sprint. Loaded loops are
3 more prevalent in rural territories due to the
4 economics associated with implementing forward-looking
5 fiber-fed DLC network infrastructures in less densely
6 populated areas.

7

8 **Q. Are BellSouth's proposed installation charges for 2-**
9 **wire xDSL-capable UNE loops based upon efficient**
10 **methods and procedures and reasonable work time**
11 **estimates?**

12

13 A. No. The non-recurring charges proposed by BST assume
14 manual processes and unreasonable work times. BST
15 claims it takes about 7 total labor hours to install a
16 standard 2-wire xDSL-capable loop. The only BST work
17 time component that appears reasonable is technician
18 travel for which BST allocates 20 minutes. The
19 remaining 6 1/2 hours of labor is due to BST's
20 assumption of manual work activities and inflated work
21 times.

22

23 For instance, BST's costs include 2.5 hours for
24 "Service Inquiry" work functions. The descriptions
25 provided include various work group activities such as

1 "screens documents" and "reviews request" and
2 "processes order". These do not reflect the operations
3 of an efficient service provider.

4
5 BST's costs also include 3.8755 hours for the actual
6 installation of an xDSL-capable loop. Sprint's
7 position is that such loops do not need to be
8 "designed" circuits as claimed by BST. BST relies on
9 this unfounded categorization in an attempt to justify
10 the excessive labor times associated with manual order
11 coordination and dispatching of technicians.

12
13 Other work activities comprising BST's 3.8755 hours for
14 "Connect & Turn-up Testing" include the following:
15 "assigns workforces; ensures dispatch; performs manual
16 order coordination; resolves trouble". Time spent on
17 trouble resolution activities should not be included.
18 These maintenance costs are captured in the annual
19 charge factors and are reflected in the monthly loop
20 rates.

21
22 The remaining reasons are due to questionable work
23 times allocated by BST for certain other work
24 functions. For instance, BST allocates 0.2833 hours
25 (17 minutes) to "wire circuit at collocation site".

1 Sprint allocates a more reasonable 9 minutes to place
2 and test this jumper on the MDF. All this involves is
3 a technician running a jumper wire from the OSP cable
4 pair terminal block to the collocator's terminal block
5 on the MDF. The costs associated with additional
6 engineering and jumpers for "test point access" are
7 unnecessary.

8
9 Additionally, the BST cost model allocates a total of
10 1.921 hours for an I&M field technician to hook-up a
11 single 2-wire xDSL-capable loop. This is about double
12 the time that it takes in reality.

13

14 **Q. Is BellSouth's proposed disconnect charges for xDSL-**
15 **capable UNE loops reasonable?**

16

17 A. No. In reality, ILECs leave such loops in place as
18 "cut-throughs" and/or "DCOPs" (Dedicated Central Office
19 Plant) in order to avoid the unnecessary costs
20 associated with dispatching a technician to disconnect
21 and reconnect when a new customer orders service for
22 the same location. For most services, including POTs
23 and xDSL-capable loops, the same cable pair(s) can be
24 reused. BST should not be allowed to charge for

1 disconnects, as such, for copper pair-based xDSL
2 services.

3

4 **Q. Are BellSouth's non-recurring charges for a 2-wire**
5 **Enhanced Extended Link (EEL) reasonable?**

6

7 A. No. An ALEC wishing to order a new, 2-wire voice-grade
8 loop with 1/0 multiplexing and DS1 transport would pay
9 much higher NRCs in BST territory than what Sprint
10 considers to be reasonable.

11

12 In the case of BST, one would pay \$633.30. This
13 includes the inflation of work times by an additional
14 5.2403 hours over what BST allocates for the individual
15 UNEs.

16

17 **Q. For BellSouth, are these additional work times**
18 **justified?**

19

20 A. No. Sprint sees no reason why it should cost more to
21 provision a combination of these network elements when
22 the individual elements could be ordered separately at
23 a lesser total NRC. BST is apparently relying on the
24 concept that it will take extra time to coordinate such

1 orders. Sprint's experience does not support that
2 concept.

3

4 **Q. Does Sprint find any other BST nonrecurring charges**
5 **unreasonable?**

6

7 A. Yes. Sprint finds that most all of BST's NRCs appear to
8 be similarly inflated. Another example is with High
9 Capacity DS3 Loops.

10

11 For example, BST allocates 19.35 hours (\$910.45) to
12 install a DS3 Facility Termination including 4.25 hours
13 for service inquiry; 3.88 hours of engineering; and
14 11.22 hours connect & test. In reality, this entire
15 effort takes closer to a total of 2 labor hours, with
16 one hour for engineering and another hour for the
17 actual DS3 card installation and testing.

18

19 **Q. Does this conclude your rebuttal testimony?**

20

21 A. Yes.

1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2 SPRINT'S REBUTTAL TO BELL SOUTH'S REVISED
3 DIRECT TESTIMONY AND COST STUDY
4 OF
5 STEVEN M. MCMAHON

6
7
8 Q. Please state your name and business address.

9
10 A. My name is Steven M. McMahon. I am employed by
11 Sprint/United Management Company as senior manager-
12 Network Costing. My business address is 6360 Sprint
13 Parkway, Overland Park, Kansas, 66251.

14
15 Q. Are you the same Steven M. McMahon that filed direct and
16 rebuttal testimony in this proceeding?

17
18 A. Yes, I am.

19
20 Q. What is the purpose of this rebuttal testimony?

21
22 A. The purpose of this rebuttal testimony is to respond to
23 the revised direct testimony and exhibits sponsored by
24 BellSouth Telecommunications, inc. (BST) witnesses
25 Alphonso J. Varner and D. Daonne Caldwell with regard to

1 nonrecurring charges (NRCs) that BST has proposed in its
2 August 18, 2000, filing.

3 Q. Does BellSouth's revised direct testimony and August 18,
4 2000, revised cost study eliminate any of the concerns
5 you expressed in your refiled direct and rebuttal
6 testimony concerning the level of BellSouth's proposed
7 NRCs?

8
9 A. No.

10

11 Q. Has BellSouth proposed revised rates for its NRCs?

12

13 A. Yes.

14

15 Q. Are those revised NRCs based upon time estimates that are
16 more aligned with those to be expected of an efficient
17 LEC?

18

19 A. No.

20

21 Q. Can you give me an example of why even the proposed lower
22 NRCs are unreasonable?

23

24 A. Yes. The BellSouth revised Loop Qualification NRC goes
25 from \$189.37 to \$132.82. However, there are two reasons

1 why this BST charge is about five times greater than it
2 should be. (1) BST time for the service inquiry
3 function is 107 minutes. Sprint's time, on the other
4 hand, is 24 minutes for the same functions. And, (2) BST
5 time for the engineering function is 77 minutes vs.
6 Sprint's 35 minutes.

7
8 BST claims that it takes 107 minutes for a Systems
9 Designer and a Customer Point of Contact clerk to handle
10 the ordering process for loop qualification. Sprint's
11 comparable time of 24 minutes is a weighting of times
12 required to handle electronic (20 min) and manual (30
13 min) orders. Even if BST's order process is assumed to
14 be 100% manual, it is unrealistic for BST to take 107
15 minutes of front-office time to handle a simple loop
16 qualification order.

17
18 BST also claims that it takes 77 minutes for a Job Grade
19 57 and a Service Advocacy clerk to handle the engineering
20 process for loop qualification. Sprint's comparable time
21 is 35 minutes.

22
23 Q. Are there other NRCs for which BellSouth has proposed
24 lower rates?

25

1 A. Yes, but based upon my analysis of the proposed rates and
2 underlying time estimates, the rates proposed for those
3 NRCs are still too high, and the underlying time
4 estimates are still unreasonable. Because I have
5 previously addressed those rates and time estimates in my
6 refiled direct and rebuttal testimony, it would serve no
7 purpose to repeat my concerns and reasonings here.

8
9 Q. Has BellSouth proposed any new NRCs in its August 18,
10 2000, filing?

11
12 A. Yes. BellSouth has proposed two new NRCs related to
13 Unbundled Sub-Loop Modification.

14
15 Q. Does Sprint find these proposed NRCs to be reasonable?

16
17 A. No. Sprint finds that BellSouth's NRCs for Unbundled
18 Sub-Loop Modification use inflated work times and
19 questionable work steps. BellSouth has NRCs for both
20 load coil removal and bridged tap removal. In both those
21 NRCs, BellSouth claims 3.75 hours of engineering time is
22 necessary. Sprint believes that 3.75 hours of
23 engineering time is clearly excessive. This is ten times
24 the 0.375 hours BellSouth claims is necessary for short
25 loop modifications for load coils and bridged tap.

1 Sprint believes that engineering for loop and sub-loop
2 modifications should be similar. Similarly, BellSouth
3 claims 2.7 hours is necessary for connect & test for sub-
4 loop load coil removal, but that 0.924 hours is necessary
5 for loop load coil removal. Also, BellSouth claims 7.225
6 hours is necessary for connect & test for sub-loop
7 bridged tap removal, but that 0.925 hours is necessary
8 for loop bridged tap removal. Connect & test for loop
9 and sub-loop modifications should also be similar or the
10 same as for the entire loop.

11

12 Q. Does this conclude your rebuttal testimony?

13

14 A. Yes.

15

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STATE OF FLORIDA)

COUNTY OF LEON)

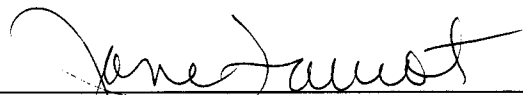
CERTIFICATE OF REPORTER

I, JANE FAUROT, RPR, Chief, FPSC Bureau of Reporting
FPSC Commission Reporter, do hereby certify that the
Hearing in Docket No. 990649-TP was heard by the Florida
Public Service Commission at the time and place herein
stated.

It is further certified that I stenographically
reported the said proceedings; that the same has been
transcribed under my direct supervision; and that this
transcript, consisting of 164 pages, Volume 19 constitutes
a true transcription of my notes of said proceedings and
the and the insertion of the prescribed prefiled testimony
of the witnesses.

I FURTHER CERTIFY that I am not a relative, employee,
attorney or counsel of any of the parties, nor am I a
relative or employee of any of the parties' attorney or
counsel connected with the action, nor am I financially
interested in the action.

DATED THIS 24TH DAY OF OCTOBER, 2000.



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