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October 12, 2004

Mrs. Blanca Bayo, Director
Division of Commission Clerk and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

**RE: Docket 040301 -TP
SUPRA'S REBUTTAL TESTIMONY OF DAVID A. NILSON**

Dear Mrs. Bayo:

Pursuant to our Letter of October 8, 2004, enclosed are fifteen (15) redacted copies of Supra Telecommunications and Information Systems, Inc.'s (Supra) Rebuttal Testimony of David A. Nilson with exhibits to be filed in the above captioned docket. Portions of the testimony and some of the Exhibits are deemed proprietary and thus are submitted in a sealed envelope..

A copy of this letter is enclosed. Please mark it to indicate that the original was filed and return it to me.

Sincerely,

Brian. Chaiken
Executive V.P. Legal Affairs

DOCUMENT NUMBER-DATE
11016 OCT 12 3
COMMISSION CLERK

CERTIFICATE OF SERVICE

Docket No. 040301-TP

I HEREBY CERTIFY that a true and correct copy of the following was served via Facsimile, E-Mail, Hand Delivery, and/or U.S. Mail this 12th day of October 2004 to the following:

Jason Rojas/Jeremy Susac
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By: Brian Chaiken

1 **BEFORE THE FPSC – REBUTTAL TESTIMONY OF**

2 **DAVID A. NILSON**

3 **ON BEHALF OF SUPRA TELECOMMUNICATIONS AND INFORMATION**

4 **SYSTEMS, INC.**

5 **DOCKET NO. 04-0301-TP**

6 **FILED: OCTOBER 8, 2004**

7 **REDACTED**

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1 **I. INTRODUCTION AND SUMMARY OF TESTIMONY**

2

3 **Q. PLEASE STATE YOUR NAME AND ADDRESS**

4 A. My name is David A. Nilson. My business address is 2620 SW 27th Avenue, Miami,
5 Florida 33133.

6

7 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

8 A. I am employed by Supra Telecommunications and Information Systems, Inc. (“Supra”)
9 as its Chief Technology Officer.

10

11 **Q. ARE YOU THE SAME DAVID NILSON WHO FILED DIRECT TESTIMONY IN**
12 **THIS DOCKET?**

13 A. I am.

14

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

16 A. The purpose of my testimony is to rebut the testimony of D. Daonne Caldwell, and
17 Kenneth Ainsworth of Bellsouth on issues 1 through 4.

18

19 **Q. WHICH ISSUES DO YOU ADDRESS IN YOUR TESTIMONY?**

20 A. I provide rebuttal testimony regarding the position of the BellSouth witnesses relative to
21 what nonrecurring rate, if any, applies for a conversion from UNE-P to UNE-L when the UNE-P
22 line is served by copper or UDLC loop (**Issue 1**) or IDLC loop (**Issue 2**), and whether a new
23 nonrecurring rate should be created for a conversion from UNE-P to UNE-L when the UNE-P

1 line is served by copper or UDLC (**Issue 3**), or IDLC (**Issue 4**), and what should be the rate for
2 such a conversion (**Issues 3 and 4**).

3 **II. How to read a cost study.**

4 **Q. WILL YOU PLEASE EXPLAIN HOW TO READ AND INTERPRET THE COST**
5 **STUDIES FILED IN THIS DOCKET?**

6 A. Gladly. Turn to Supra Exhibit # DAN-45. The structure and for of these costs studies is
7 as defined by Bellsouth in Docket 990649-TP from Tab 3 – Tab 10. Tabs 1 and 2 represent the
8 output of the Bellsouth cost calculator BSCC 2.4, but were created by Hand in Excel to provide
9 a single Excel workbook, self contained for this project.

10

11 **Tab 1 – Non Recurring Cost Summary.**

12 This tab is the final, top level rollup of Cost (direct and TELRIC), Gross receipts factor
13 and Common Cost factor leading to the final “Economic Cost” for installation and disconnection
14 of the relevant elements. Tabs 1 and 2 represent the output of the Bellsouth cost calculator
15 BSCC 2.4. This Tab derives its input from Tab 2.

16

17 **Tab 2 Non recurring Cost development**

18 This tab is where the line item departmental / paygrade totals developed in Tab 5 are
19 multiplied by the Direct Labor rates to arrive at the TELRIC cost. Tabs 1 and 2 represent the
20 output of the Bellsouth cost calculator BSCC 2.4. This Tab derives its input from Tab 5.

21

22 **Tab 3 Index**

1 This tab is normally the top level “cover sheet” in a Bellsouth cost study and is used by
2 the Bellsouth cost calculator BSCC 2.4. This Tab derives no input.

3
4 **Tab 4 Additives Recurring**

5 This documents recurring Expenses data which is then input into Tab 10
6 (INPUTS_MISC) it documents, for all BellSouth offices the recurring cost of Subscriber line
7 testing and Network Terminating wire. This Tab derives no input. This tab is input to Tab 10
8 (INPUTS_MISC)

9
10 **Tab 5 Nonrecurring Labor**

11 This tab is where the line item departmental / paygrade totals are presented to the cost
12 calculator. All costs on the wp100 tab are summarized here, by UNE element, by Department /
13 paygrade with one line per department paygrade. Installation and disconnect times for First
14 Install and additional Install are documented here. This Tab is input to Tab 2 and the BSCC 2.4
15 Cost Calculator. This Tab derives its input from Tab 6.

16
17 **Tab 6 WP100**

18 This tab is where the line item departmental / paygrade totals are developed. All costs on
19 the INPUTS_XXX tabs are summarized her, by UNE element, by Department / paygrade with
20 one line per department paygrade. Installation and disconnect times for First Install and
21 additional Install are documented here. This Tab is input to Tab 5 and derives its input from
22 Tab(s) 7-10.

- 1 **Tab 7 INPUTS_ENGINEERING**
- 2 **Tab 8 INPUTS_CONNECT&TEST**
- 3 **Tab 9 INPUTS_TRAVEL**

4 These tabs are where the departmental workitem and times are documented. Installation
5 and disconnect **times** for First Install and additional Install are documented here. They are
6 further modified by a) Probability of occurrence, Probability of Dispatch and FPSC Staff
7 Recommended Adjustments This Tab is input to Tab 6 and derives its input from Subject
8 Matter Experts (“SMEs”).

9

10 **Tab 10 INPUTS_MISC**

11 This tab is where misc. data used by Tabs 7,8, and 9 are documented. It takes its input
12 from SMEs and Tab 4.

13

14 **III. Issue 1 – Under the Current Agreement, what nonrecurring rate, if any, applies for**
15 **a hot-cut from UNE-P to UNE-L, where the lines being converted are served by**
16 **copper or UDLC, for (a) SL1 loops and (b) SL2 loops?**

17

18 **Q. HAS BELLSOUTH CITED TO ANY CONTRACTUAL REFERENCE WHEREIN**
19 **A HOT CUT FROM UNE-P TO UNE-L FOR COPPER OR UDLC LINES IS**
20 **MENTIONED?**

21 A. No. Neither in the direct testimony of Ms. Caldwell nor Mr. Ainsworth is there any
22 contractual cite to a rate for UNE-P to UNE-L conversions, much less a rate for such a
23 conversion on a copper or UDLC line.

24

1 **Q. HAS BELLSOUTH CITED TO ANY FPSC ORDER WHEREIN A HOT CUT**
2 **FROM UNE-P TO UNE-L FOR COPPER OR UDLC LINES IS MENTIONED?**

3 A. No. Neither in the direct testimony of Ms. Caldwell nor Mr. Ainsworth is there a cite to a
4 FPSC ordered rate for UNE-P to UNE-L conversions, much less a rate for such a conversion on a
5 copper or UDLC line. BellSouth argues that the non-recurring rate for the installation of a new
6 SL1 or SL2 loop (A.1.1 and A.1.2 elements) applies to this situation, but presents absolutely no
7 supporting evidence to substantiate that naked claim.

8
9 **Q. WHAT TYPE OF EVIDENCE WOULD YOU HAVE EXPECTED BELLSOUTH**
10 **TO PRODUCE?**

11 A. We would have expected to see some meeting minutes, notes, flow charts, workpapers or
12 other documentation substantiating BellSouth's claim that its August 16, 2000 SL1 and SL2 cost
13 study took into consideration BellSouth's UNE-P to UNE-L conversion process, particularly in
14 situations where the loop is served via copper or UDLC. Furthermore, we would have expected
15 to see some calculations showing the percentages of all of the different types of installations and
16 hot cuts that purportedly went into the "average loop" which BellSouth claims applies to any
17 number of different processes. Yet, BellSouth has produced no such evidence.

18
19 **Q. WHAT EVIDENCE HAS BELLSOUTH PRODUCED?**

20 A. BellSouth has produced no evidence other than the testimony of Ms. Caldwell. Of
21 course, without providing any documents substantiating her position, BellSouth apparently
22 believes that we should all simply take her at her word. One problem with this is that Ms.
23 Caldwell is not the person who is aware of the actual departments involved, the worksteps they

1 perform in the various loops service methods needing to be converted, or put together the
2 underlying inputs (work elements, worktime assessments and probability of (occurrence or of
3 dispatch) factors) that went into the cost studies at issue. See Caldwell Sept. 21, 2004 depo tr., at
4 pg. 16. She had never actually seen a hot cut being performed. See Caldwell Sept. 21, 2004
5 depo tr., at pg. 16. Her knowledge is based solely on hearsay – what someone who works as part
6 of BellSouth’s product team told her was to be put into the cost study. As such, neither Supra
7 nor this Commission has the ability to test the veracity of Ms. Caldwell’s assertions, as Ms.
8 Caldwell herself does not know how the inputs were arrived at. See Caldwell Sept. 21, 2004
9 depo tr., at pg. 16. In fact, Ms. Caldwell’s **only** function in the process of creating the cost study
10 “is to be sure that all the UNEs are covered and that there’s no overlapping.” See Caldwell Sept.
11 21, 2004 depo tr., at pg. 14.

12 Amazingly, BellSouth presented Ms. Caldwell as its corporate representative with the
13 most knowledge regarding BellSouth’s cost studies which support the non-recurring charges
14 which BellSouth seeks to charge Supra for performing UNE-P to UNE-L conversions. See
15 Caldwell Aug. 18, 2004 depo tr., at pg. 5. As Ms. Caldwell, BellSouth’s corporate representative
16 with the most knowledge, could not provide any support for any of the underlying inputs that
17 went into the cost studies at issue, BellSouth does not have a witness that can support its
18 purported costs in this case.

19

20 **Q. HAS SUPRA REQUESTED SUCH EVIDENCE FROM BELL SOUTH?**

21 A. Yes, Supra has requested such from BellSouth in its discovery requests in this docket.

22 BellSouth has produced no evidence whatsoever supporting its claim that the August 16, 2000
23 cost study took into consideration UNE-P to UNE-L conversions for loops provided via copper

1 or UDLC. Furthermore, Supra requested that BellSouth provide Supra with all documents filed
2 in the FPSC cost study docket(s) which would support BellSouth's claims. Rather than
3 providing any responsive documents, BellSouth objected. Supra has since moved to compel a
4 response from BellSouth, and such motion remains pending before the Commission. Supra
5 surmises that no responsive documents exist.

6

7 **Q. HAS BELLSOUTH MADE ANY ATTEMPT TO SHOW THAT THE RATES**
8 **CONTAINED IN THE CURRENT AGREEMENT SOMEHOW APPLY TO A**
9 **UNE-P TO UNE-L CONVERSION FOR LOOPS SERVED VIA COPPER OR**
10 **UDLC?**

11 **A.** No. BellSouth has only done two things: (1) regurgitate Mr. Ainsworth's direct
12 testimony submitted on December 4, 2003 in Docket No. 030851-TP (TRO Docket), wherein
13 Mr. Ainsworth sets forth BellSouth's proposed UNE-P to UNE-L conversion process for
14 individual hot cuts; project hot cuts; and batch hot cuts; and (2) submit the unsubstantiated
15 testimony of Ms. Caldwell wherein she testifies that the FPSC already approved a non-recurring
16 rate for an "average hot cut," as such was purportedly included in BellSouth's August 16, 2000
17 SL1 and SL2 cost study. Neither Mr. Ainsworth nor Ms. Caldwell cite to any language, either
18 submitted by BellSouth or set forth by the Commission in an order, wherein there was any
19 discussion of a UNE-P to UNE-L hot cut. Nor does either of BellSouth's witnesses walk us
20 through an analysis of BellSouth's cost study to show how the process of performing a UNE-P to
21 UNE-L conversion for copper and UDLC lines is set forth and properly costed. Instead,
22 BellSouth makes blanket assertions without any underlying factual support.

23

1 Q. IS THERE ANYTHING YOU WOULD LIKE TO ADD AS IT RELATES TO
2 ISSUE 1?

3 A. Yes. While Mr. Ainsworth claimed at his depo that he too did not have the ability to put
4 together the underlying inputs (work elements, worktime assessments and probability of
5 (occurrence or of dispatch) factors) that went into the cost studies at issue. See Caldwell Sept.
6 21, 2004 depo tr., at pg. 16, he was able to speak about the process and the departments included
7 In the October 8 2001 cost study which are not actually involved in a UNE-P to UNE-L hotcut.
8 As a result of Mr. Ainsworths testimony, Supra has modified its 12/24/2003 Cost study presented
9 in my Direct Testimony(Supra Exhibit # DAN-9) with an updated version (Supra Exhibit #
10 DAN-45¹) which addresses:

- 11 1. Ms Caldwell's concern that the cost study should zero the probability, not the
12 "standard" worktimes when a step is avoided and omitted.
- 13 2. Mr. Ainsworths detailed deposition analysis of his hot-cut process and the
14 October 8 Cost study worksteps.
- 15 3. Embedded errors in the original Bellsouth Cost study found in sheet WP100.
- 16 4. An increase in the time allocated for the CO forces department to actually
17 perform a hot-cut. While the precise time is yet to be learned through discovery
18 still outstanding, Supra has realized "something" larger than its initial reliance
19 on the 2:39 testified to by Mr. Ainsworth in the TRO hearings was going to
20 have to be allocated for this step. Supra has increased its estimate from 2:39 to

21

¹ Entitled "EX-45 Supra Group 1 Copper UDLC UNE-P to UNE-L Cost study FL-2w.xls

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[REDACTED]

14 Furthermore, for the remaining 3 departments, so many of the actual steps within that
15 departments in the October 8 cost study are not part of the process defined by Mr. Ainsworth that
16 the actual times involved are approx one-half the times recovered in the October 8 cost study³.

17 Clearly, the October 8th cost study, and hence the Commissions A.1. and A.1.2 NRC
18 does not accurately or fairly recover the cost actually incurred by BellSouth in the UNE-P to
19 UNE-L conversion of loops served via copper or UDLC before and after the conversion.

² 9 separate departments with 10 total paygrades.

³ Supra actually detected an embedded error in BellSouth's A.1.1 cost study. On the WP100 tab, for the WMC department, the formula anticipates the BellSouth worktime is being multiplied by an FPSC factor as all other departments are. However the FPSC ordered factor for WMC, if it exists, was omitted from the INPUTS_CONNECT& test sheet causing a multiply by zero error which resulted in BellSouth not claiming any worktime for the WMC center in its October 8 cost study. However the same error is not propagated in the A.1.2 cost study on tab WP100. This can be clearly seen in Table 1.

1 This represents [REDACTED] of all lines in BellSouths Florida region^{4,5} for which the A.1.1
2 and A.1.2 NRC rate is **inappropriately high**⁶ for a UNE-P to UNE-L hotcut.

⁴ See Supra Exhibit # DAN-42- Bellsouth response to Supra interrogatory 20-24 regarding lines in service served via various loops service methods. And Supra Exhibit # DAN-43- Supra modified version of Bellsouth response to Supra interrogatory 20-24 (Supra Exhibit # DAN-42) with subtotals calculating statewide percentage of various loops service technologies, and making adjustment for the fact that BellSouths NGDLC counts were also included in IDLC/UDLC counts.

⁵ i.e. [REDACTED]

⁶ \$49.57 - \$7.53 = \$42.04 = inappropriately high.

1

[REDACTED]

2

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Table 2 - Nonrecurring Labor tab from the Supra Exhibit # DAN-45 Group 1 Copper UDLC Cost study cost study A.1.1 and A.1.2 showing the departments removed and worktimes reduced from the hot-cut cost recovery by Mr. Ainsworths deposition testimony

1 **Issue 2 – Under the parties’ existing interconnection agreement, what nonrecurring**
2 **rate, if any, applies for a hot-cut from UNE-P to UNE-L, where the lines being**
3 **converted are not served by copper or UDLC, for (a) SL1 loops and (b) SL2 loops?**

4
5 **Q. HAS BELLSOUTH CITED TO ANY CONTRACTUAL REFERENCE WHEREIN**
6 **A HOT CUT FROM UNE-P TO NOT SERVED BY COPPER OR UDLC LOOPS**
7 **TO UNE-L IS MENTIONED?**

8 A. No. Supra’s position relative to Issue 1, that, *inter alia*, BellSouth has failed to provide
9 any contractual or legal citations to support its claims, applies equally to Issue 2 as well.

10
11 **Q. IS THERE ANYTHING YOU WOULD LIKE TO ADD AS IT RELATES TO**
12 **ISSUE 2?**

13 A. Yes. Despite the fact that Mr. Ainsworth has claimed that there are eight different
14 methods available for performing UNE-P to UNE-L hot cuts when the loop is served via IDLC,
15 BellSouth has not produced any written flow charts or processes which support any of these
16 eight methods. Furthermore, BellSouth has admitted that it never prepared a cost study for any
17 of these eight methods. It is beyond comprehension to believe that such methods were actually
18 considered and accounted for in BellSouth’s August 16, 2000 SL1 and SL2 cost study.

19
20 **Q. HAS BELLSOUTH PROVIDED ANY DOCUMENTATION IN SUPPORT OF**
21 **ANY OF ITS CLAIMS?**

22 A. No. The only documents BellSouth provided in response to Supra’s discovery requests
23 regarding the processes involved for these types of hot cuts were: (1) a one page flow chart for a

1 UNEP to UNEL Bulk Migration Process Flow, dated June 6, 2002⁷; and (2) Outside Plant
2 Engineering Methods and Procedures for Provisioning Unbundled Network Elements, dated May
3 7, 2004⁸. Neither of these documents evidences the costs for the specific work elements
4 necessary to perform either a bulk hot cut, or an IDLC hot cut. Both of these documents are
5 overly broad and fail to get into any specifics as it relates to the processes necessary to perform
6 such.
7 The outside Plant manual is completely devoid of any mention of the 8 methods of IDLC served
8 UNE-P loops being converted to UNE-L, despite it being proffered as “the” (one and only)
9 definitive document responsive to the request for production #5:

10 5. Please provide any and all supporting documents which document the
11 processes a) that Bellsouth actually uses or b) that would be necessary if
12 Bellsouth were to perform UNE-P to UNE-L conversions on loops served by
13 Integrated Digital Loop Carrier (“IDLC”) for the eight alternatives set forth on
14 pages 25-28 of the testimony of Ken Ainsworth in Docket 030851-TP filed
15 with the FPSC on December 4, 2003 and the DACS-door process provided for
16 the Bellsouth Tennessee SGAT.

17
18 Please provide any and all documents created as a result of
19 implementing the eight options, including but not limited to, the business
20 decisions which impacted the implementation(s), the logic by which a specific
21 method is chosen, engineering analysis of the relative merits of the various
22 methods, and proposals for alternatives which are not part of the list of eight.
23 Provide any and all documents which evidence that Bellsouth is actually
24 using each of the eight methods in Florida.

25 (Supra Second Request for Production of Documents, #5)

26
27 As a result, it is painfully obvious that while Bellsouth testifies that it can convert IDLC
28 served UNE-P lines to UNE-L, Bellsouth has not actually implemented the processes and

⁷ See Supra Exhibit # DAN-36 Confidential - Bellsouth’s UNEP to UNEL Bulk Migration Process Flow, PFUNEP2L.ppt dated 6/6/2002

⁸ See Supra Exhibit # DAN-37 Confidential - Bellsouths “Outside Plant Engineering Methods and Procedures for Provisioning Network Elements” document, Issue R, dated May 7, 2004 provided in response to Supra’s Second request for Production of Documents.

1 procedures for all 8 (eight) methods, but relies exclusively on the two most costly
2 methods, Methods 1⁹ and Method 3¹⁰, and bill Supra for the more expensive of the two
3 causing unnecessary expense and disruption of the customers service¹¹.

4 Perhaps even more disconcerting is the dates of these documents – June 6, 2002 and May 7,
5 2004. Assuming that these documents were specific enough so as to enable someone to identify
6 the elements, worktimes and costs associated with the various processes involved, such would
7 not have been available before August 16, 2000 – the date in which BellSouth filed its cost study
8 which it purports includes these elements. Again, for BellSouth to contend that it considered
9 these processes in a cost study prepared two to four years earlier is disingenuous at best.
10

⁹ Use an existing (completely new) copper loop, if available.

¹⁰ Rebuild the IDLC served loop to be copper or UDLC served.

¹¹ BellSouths marketing department then keys off of Supra's LSR to target this customer for winback via Operation Sunrise¹¹, after unnecessarily disrupting the loop service to that customer.

1

2 **IV. Issue 3 - Should a new nonrecurring rate be created that applies for a hot-cut from**
3 **UNE-P to UNE-L, where the lines being converted are served by copper or UDLC,**
4 **for (a) SL1 loops and (b) SL2 loops? If so, what should such nonrecurring rates be?**

5

6

7 **Q. IN HER DIRECT TESTIMONY AT PAGE 3, LINE 7, MS. CALDWELL STATES**
8 **THAT “IT IS BELL SOUTH’S POSITION THAT COST-BASED RATES, WHICH**
9 **WERE SET BY THIS COMMISSION, ALREADY EXIST THAT REFLECT THE**
10 **ACTIVITIES NECESSARY TO CONVERT A RETAIL LOOP OR A UNE-P**
11 **LOOP TO AN UNBUNDLED LOOP (UNE-L). THE RATES THAT ARE**
12 **APPLICABLE TO THE HOT-CUT PROCESS ARE THE NONRECURRING**
13 **CHARGES FOR THE UNBUNDLED LOOP, THE SERVICE ORDER**
14 **PROCESSING CHARGE AND THE NONRECURRING CROSS CONNECT**
15 **RATE, LEADING TO AN SL1 RATE OF \$59.31, AND AN SL2 RATE OF**
16 **\$145.49.” DO YOU AGREE WITH MS. CALDWELL’S ASSERTIONS?**

17 **A. No. Ignoring fully the arguments in Issue 1 & 2 regarding the existing rates ordered by**
18 **this Commission, BellSouth’s own testimony proves that BellSouth must cease making the**
19 **claim that the FL-2w.xls cost study recovers the costs incurred in a UNE-P to UNE-L hotcut.**

20 **First, MS. Caldwell is not a Subject Matter Expert (“SME”), her own deposition**
21 **testimony¹² shows that her function in the cost study process is to take input from subject matter**
22 **experts in the various work centers, as directed by the BellSouth product manger, to record, and**

¹² See Caldwell Sept. 21, 2004 depo tr., at pgs. 13-17.

1 compute, the cost of the work activities identified to her by the SMEs. Second, as Table 1 and 2
2 above show, and as will be discussed in greater detail below, the processes involved in
3 performing a hot cut do not match up with the elements set forth in the FL-2w.xls cost study.
4

5 **Q. IN HER DIRECT TESTIMONY AT PAGE 7, LINE 5 MS. CALDWELL STATES**
6 **THAT THE EXISTING COST STUDY CANNOT BE USED TO SUPPORT HE**
7 **RATE STRUCTURE SUPRA ENVISIONS. WHY IS HER ASSERTION**
8 **INCORRECT?**

9 **A.** First, Ms. Caldwell testified in her deposition as follows:

10 **Q** If BellSouth hasn't created a written process for a certain type of hot cut, for instance
11 -- this is a hypothetical. Hypothetically speaking, BellSouth hasn't created a written
12 process for a batch hot cut, how can you create a cost study which incorporates
13 something which doesn't have a written process?

14 **A.** Basically, what you do -- **because we do it all the time.** Not referring necessarily
15 to this process; because, again, we're talking hypothetically, but when a new element
16 comes along, I mean, we look at activities that we know that are going to be similar;
17 because to do certain activities, you're going to have those same similar activities in
18 different processes that you do.

19 **Q** So you're able to take cost estimates from different cost studies that are similar in
20 nature and just plug them into this hypothetical new cost study for a new element?

21 **A.** **Yes. It can be done** as long as subject matter experts look at the activities and
22 verify that they are similar.

1 See Caldwell Sept. 21, 2004 depo tr., at pg. 17 (Emphasis added.). Yet, Ms. Caldwell, in her
2 Direct Testimony submitted in this docket, at pg. 7, claims that this very thing is “impossible.”
3 Which one is it?

4 Second, it is undisputed that both Bellsouth and the FPSC took exactly that same course
5 of action in Docket 990649a-TP. In fact, BellSouth cut-and-pasted, and **occasionally** made a
6 slight modification to the INPUTS_CONNECT&TEST, INPUTS_TRAVEL, and
7 INPUTS_ENGINEERING tabs of the Cost studies for **widely disparate technologies of loops,**
8 **maintaining exactly the same worktimes, for the same departments / paygrades, for all the**
9 **various loop types, and merely made minor modifications to the probabilities of**
10 **occurrence, and probability of dispatch**¹³

11

12 **Q. WHAT EXACTLY DOES THAT MEAN?**

13 A. Quite simply, that for each work activity listed in Table 3 – INPUTS_CONNECT&TEST
14 set forth hereinbelow, the worktime is **identical** to the worktime for the identical work activity,
15 performed by the same department and pay grade. Table 3 – INPUTS_CONNECT&TEST
16 lists each of the worksteps, by department that are included in the INPUTS_CONNECT&TEST
17 section of the cost study for **each and every element’ listed in** Table 4 – FPSC Loop Types
18 with **IDENTICAL** worktimes. This is an absolute contradiction of the testimony of Ms.
19 Caldwell who stated that the A.1.1 and A.1.2 worktimes and probabilities of dispatch were based
20 upon BellSouths embedded retail experience with 1FR and 1FB service to its customers. Yet in

¹³ Contrary to MS. Caldwell’s deposition testimony, wherein she claims that BellSouth did not assume a 100% dispatch rate, BellSouth used the exact same probability of dispatch for residential POTS, business POTS, 4 wire DS1 (T1) service, ISDN BRI, ADSL, 4 wire HDSL loops. Ms. Caldwell testified that the [REDACTED] figure was specific to POTS, installations, with no inside work, or IWM. If that is true, Bellsouth has identical installation dispatch rates for all products!

1 its loop cost studies¹⁴ Bellsouth used **identical steps, performed by identical departments, and**
2 **paygrades, which take identical worktimes, (despite Ms. Caldwell's sworn testimony that**
3 **the worktimes were independently derived) for each UNE element listed in Table 4 – FPSC**
4 Loop Types with IDENTICAL worktimes. It is quite troubling to learn that BellSouths
5 installation dispatch probability for POTS service is identical to a) 4 wire DS1, b) 2 wire ISDN
6 BRI, c) 2 wire ADSL, d) 4 wire HDSL. It is patently ridiculous to expect Supra to accept that
7 the troubleshooting time at the cross box, and at the customer premises **is identical for each of**
8 **these services**, given Ms. Caldwell's sworn testimony that they were independently derived, yet
9 the facts are clear and do not support Ms. Caldwell's testimony. Once again, Bellsouth used the
10 same process to arrive at these rates as Supra is using to define the **correct** rate which recovers
11 **only** the costs actually incurred in making a UNE-P to UNE-L hotcut.

¹⁴ See Supra Exhibit # DAN-45,

1

Unbundled Network Element Center (UNEC) Work Activities
UNEC pulls order information and assigns to work groups.
Provisioning variables - when UNEC pulls order information (Row 12)
Verifies and ensures accuracy of order design
Creates cut sheets to verify reuse of facilities
Ensures dispatch
Performs frame continuity and due date coordination and testing
Provisioning variables - testing (Row 12)
Performs manual order coordination (remote call forward, disconnect and unbundled loop order) when service is converted on existing facilities
UNEC contacts customer and completes order
Provisioning Variables - when UNEC contacts customer and completes order (Row 12)
SPECIAL SERVICES INSTALLATION & MAINTENANCE (SSI&M) AND INSTALLATION AND MAINTENANCE (I&M) WORK ACTIVITIES
Processes requests
Places/removes plug-in at remote terminal
Places/removes cross-connect at crossbox
Checks continuity and dial tone
Trouble resolution at crossbox
Tests from NID
Trouble resolution at premises
Tags circuit
Completes order
WORK MANAGEMENT CENTER (WMC)
WMC coordinates dispatched technicians
CENTRAL OFFICE FORCES (CO)
CO Field wires circuit at collocation site.
CO Field coordinates testing with UNEC and I&M.

2

Table 3 – INPUTS_CONNECT&TEST

3

A.0	UNBUNDLED LOCAL LOOP	
A.1	2-WIRE ANALOG VOICE GRADE LOOP	
A.1.1*	2-Wire Analog Voice Grade Loop - Service Level 1	FL-2w.xls
A.1.2*	2-Wire Analog Voice Grade Loop - Service Level 2	FL-2w.xls
A.1.8	Engineering Information	FL-EI.xls
A.4	4-WIRE ANALOG VOICE GRADE LOOP	
A.4.1*	4-Wire Analog Voice Grade Loop	FL-4w.xls
A.5	2-WIRE ISDN DIGITAL GRADE LOOP	
A.5.1*	2-Wire ISDN Digital Grade Loop	FL_DIG.xls

A.5.6*	Universal Digital Channel	FL_DIG.xls
	2-WIRE ASYMMETRICAL DIGITAL SUBSCRIBER LINE (ADSL) COMPATIBLE LOOP	
A.6.1*	2-Wire Asymmetrical Digital Subscriber Line (ADSL) Compatible Loop	FL-xdsl.xls
A.6.5	2-Wire Asymmetrical Digital Subscriber Line (ADSL) Compatible Loop (Nonrecurring w/LMU)	FL-xdsl.xls
A.6.6	2-Wire Asymmetrical Digital Subscriber Line (ADSL) Compatible Loop (Nonrecurring w/o LMU)	FL-xdsl.xls
A.7	2-WIRE HIGH BIT RATE DIGITAL SUBSCRIBER LINE (HDSL) COMPATIBLE LOOP	
A.7.1*	2-Wire High Bit Rate Digital Subscriber Line (HDSL) Compatible Loop	FL-xdsl.xls
A.7.5	2-Wire High Bit Rate Digital Subscriber Line (HDSL) Compatible Loop (Nonrecurring w/LMU)	FL-xdsl.xls
A.7.6	2-Wire High Bit Rate Digital Subscriber Line (HDSL) Compatible Loop (Nonrecurring w/o LMU)	FL-xdsl.xls
	4-WIRE HIGH BIT RATE DIGITAL SUBSCRIBER LINE (HDSL) COMPATIBLE LOOP	
A.8.1*	4-Wire High Bit Rate Digital Subscriber Line (HDSL) Compatible Loop	FL-xdsl.xls
A.8.5	4-Wire High Bit Rate Digital Subscriber Line (HDSL) Compatible Loop (Nonrecurring w/LMU)	FL-xdsl.xls
A.8.6	4-Wire High Bit Rate Digital Subscriber Line (HDSL) Compatible Loop (Nonrecurring w/o LMU)	FL-xdsl.xls
	4-WIRE DS1 DIGITAL LOOP	
A.10.1*	4-WIRE 19, 56 OR 64 Kbps DIGITAL GRADE LOOP	FL-4W.XLS
A.14	4-WIRE COPPER LOOP	
A.14.1*	4-Wire Copper Loop - short	FL-xdsl.xls
A.14.8	4-Wire Copper Loop - short (Nonrecurring w/LMU)	FL-xdsl.xls
A.14.9	4-Wire Copper Loop - short (Nonrecurring w/o LMU)	FL-xdsl.xls
A.14.7*	4-Wire Copper Loop - long	FL-xdsl.xls
A.14.10	4-Wire Copper Loop - long (Nonrecurring w/LMU)	FL-xdsl.xls
A.14.11	4-Wire Copper Loop - long (Nonrecurring w/o LMU)	FL-xdsl.xls

4

5

1 **Q. IN BELLSOUTH'S PLEADINGS, AND MS. CALDWELL'S DIRECT**
2 **TESTIMONY AT PAGE 8, LINE 5-6, CLAIMS WERE MADE THAT SUPRA**
3 **SHOULD HAVE, BUT DID NOT ADDRESS THESE ISSUES IN DOCKET**
4 **990649-TP. HOW DO YOU RESPOND TO THESE STATEMENTS?**

5 A. The BellSouth response(s) in this regard are patently false. The public record proves it
6 so. The FPSC May 25, 2001 UNE rate order¹⁵ clearly proves BellSouth's assertion wrong.
7 Perhaps BellSouth's confusion comes from the fact that the procedural orders for this docket did
8 not contemplate every witness who pre-filed testimony from actually appearing, (as in this year's
9 TRO hearings), but the final order clearly states Supra's testimony was heard:

10 Pursuant to a stipulation of the parties, only certain witnesses were
11 required to appear at the July 17-19, 2000, hearing. The prefiled testimony of
12 the witnesses that did not appear was entered into the record and cross-
13 examination was waived. BellSouth's witnesses were Alphonso J. Varner,
14 Daonne Caldwell, Dr. Randall S. Billingsley, G. David Cunningham, and W.
15 Keith Milner. Verizon's witnesses were Dennis B. Trimble, Allen E.
16 Sovereign, Gregory D. Jacobson, and Michael R. Norris. Sprint's witnesses
17 were Kent W. Dickerson, James W. Sichter, John D. Quackenbush, and John
18 A. Holmes. AT&T/WorldCom jointly sponsored John I. Hirshleifer, Jeffrey
19 King, and Michael J. Majoros, Jr. **Supra's witnesses were David Nilson and**
20 **Carol Bentley.** Z-Tel's witness was Dr. George S. Ford. The Data ALECs
21 jointly sponsored Terry L. Murray and FCTA sponsored William J. Barta.
22

23 **Q. DID SUPRA ATTEMPT TO MAKE AN ISSUE OF THIS IN THE GENERIC UNE**
24 **DOCKET 990649-TP?**

¹⁵ PSC-01-1181-FOF-TP.

1 A. Absolutely, despite the fact that this was no agreement to make UNE-P to UNE-L
2 conversion an identified issue in the Docket¹⁶. In fact my rebuttal testimony (Supra Exhibit #
3 DAN-40) addressed some 7 pages of testimony regarding the following:

- 4 1. the non-recurring costs of “move a cross-connect”¹⁷,
- 5 2. “change a carrier code from ILEC to ALEC in the OSS”¹⁸,
- 6 3. “non-recurring costs to convert a working circuit to another carrier are different than
7 placing a circuit in operation at a given address.”¹⁹,
- 8 4. “the current structure of just one non-recurring rate per UNE loop is allowing the ILEC
9 undue enrichment for activities that are not performed.”²⁰,
- 10 5. “Yet with the exception of the limited scope of order PSC-98-0810-FOF-TP, most
11 ALECs in Florida are paying charges for placing a loop in service, for the first time,
12 whenever they order a conversion of a working circuit.”²¹,and
13 7. “the proper allocation of costs to recurring and or nonrecurring charges”²².”

14 This testimony was considered by the Commission in setting the non-recurring rate to
15 convert a working²³ retail line to UNE-P of **just 10.2 cents** out of BellSouths request for \$90 per
16 UNE-P circuit where no service²³ exists. Of the \$90 BellSouth seeks^{24,25}, **just 10.2 cents** is not

¹⁶ The fact that testimony on this issue had to be filed under ISSUE 6 “Under What Circumstances, If Any, Is It Appropriate To Recover Non-Recurring Cost Through Recurring Rates?” is in itself indicative that this issue was not addressed by the Commission In the 1999 Docket.

¹⁷ Rebuttal Testimony, D. Nilson in 990649-TP, Supra Exhibit # DAN-41, Page 9, ln. 9.

¹⁸ Id.

¹⁹ Rebuttal Testimony, D. Nilson in 990649-TP, Supra Exhibit # DAN-41, Pg 9, ln 12-13.

²⁰ Rebuttal Testimony, D. Nilson in 990649-TP, Supra Exhibit # DAN-41, Pg 9, ln 13-15

²¹ Rebuttal Testimony, D. Nilson in 990649-TP, Supra Exhibit # DAN-41, pg 9, ln19- pg 10, ln 2.

²² Rebuttal Testimony, D. Nilson in 990649-TP, Supra Exhibit # DAN-41, Pg 10 ln 4 – pg 13, ln 18, including rebuttal of BellSouth witnesses Varner and Sichter.

²³ Or Soft dialtone equipped line.

²⁴ See Interconnection agreement, page 160 of 593, cost based NRC rate for 2-Wire VG Line Port Rates (Res)

²⁵ Consisting of the \$49.57 loop NRC, unknown Port NRC and?????

1 avoided in retail to UNE-P conversion. Similarly, in this case, Mr. Ainsworth testifies that the
2 majority of costs in the FL-2w.xls loop cost study are avoided in a UNE-P to UNE-L hot-cut.

3 BellSouth is unable to cite to any testimony, or order which would prove its assertion that
4 the Commission actually addressed the issue of UNE-P to UNE-L conversions in the generic
5 UNE Docket, back at a time when a) no CLEC had the ability to order UNE-P from BellSouth,
6 and b) Bellsouth had no inkling that it might be relieved of its obligation to provide UNE-P. In
7 1999 and 2000, the issue simply was not ripe for adjudication, and the FPSC made no such
8 finding as BellSouth asserts.

9
10 **Q. DID YOUR TESTIMONY IN DOCKET 990649-TP ADDRESS ANY OTHER**
11 **ISSUES RELEVANT TO THIS PROCEEDING?**

12
13 **A. Yes. Access to the same look makeup information that is available to the ILEC, not a**
14 **“CLEC version” “It has been Supra Telecoms experience to date that ILECs (such as BellSouth)**
15 **refuse to provide LFACS data so that the ALEC will have no way of knowing whether or not a**
16 **particular customer can be provided ... Service”²⁶ and “...ALECs should be allowed full access**
17 **to databases such as LFACs which are needed to determine the quality of the loop...”²⁷**

18 BellSouth did provide a “CLEC LFACS” interface into LENS, which is particularly
19 oriented for xDSL loop provisioning and leaves out significant information readily
20 available to BellSouth personnel regarding the configuration of the DLC systems
21 servicing the customer. Supra gets a single field identifying an equipment type, but zero

²⁶ Direct Testimony, D. Nilson in 990649-TP, Supra Exhibit # DAN-40, pg 13, ln 1-3

²⁷ Direct Testimony, D. Nilson in 990649-TP, Supra Exhibit # DAN-40, pg 13, ln 8-9

1 information, for example, if that DLC box is operating in UDLC or IDLC mode. Supra's
2 ability to intelligently engineer loops which it wants to convert to UNE-L is thus
3 hampered by the restricted dataset presented by "CLEC LFACS" a.k.a. the Loop
4 Qualification System ("LQS").

5 The Commission should revisit this issue and order Bellsouth to provide CLECS
6 the same loop makeup information it provides itself, not a watered down version suited
7 only for xDSL decision making.

8
9
10 **Q. IN HIS DIRECT TESTIMONY PAGE 1, LN. 15, MR. AINSWORTH**
11 **SUMMARIZES HIS BACKGROUND AND EXPERIENCE. WHAT DOES THIS**
12 **TESTIMONY MEAN TO THE ISSUES IN THIS DOCKET?**

13 A. Mr. Ainsworth's testimony identifies specific experience in at least 6 of the departments
14 contained in BellSouth's October 8, cost study²⁸ for nonrecurring cost of A.1.1 and A.1.2
15 elements²⁹, and in several other departments which support, or provide oversight to these
16 departments.

17 What Mr. Ainsworth does **not** profess knowledge of is also significant.

18 **1. He is not responsible for the structure of, the workitem lists contained in, or**
19 **the worktimes recorded for the various inputs in the Oct 8 cost study.³⁰ In fact, Mr.**
20 **Ainsworth has no direct responsibility with anything that has to do with the creation**

²⁸ i.e. the October 8, 2001 Compliance Cost study Filing, Revision 1, in Docket 990649a-TP ("Oct 8 study")
²⁹ Worksheet FL-2w.xls.

³⁰ See Ainsworth Sept. 21, 2004 depo. Tr., pg. 13.

1 of a cost study.³¹ For that one must rely on the cost study expert, according to Mr.
2 Ainsworth.³²

3 2. (With regard to the various worktimes, while Ms. Caldwell deferred to Mr.
4 Ainsworth on the specific times, Mr. Ainsworth deferred back to the cost study
5 expert³³, and under examination, back to network department SMEs. He testified to
6 be able to estimate these times but not be precise.³⁴

7 3. Mr. Ainsworth does not testify that the process, departments, or worksteps
8 contained in the October 8 cost study are the correct steps, or times to perform a
9 UNE-P to UNE-L hotcut. In fact during step-by-step analysis of the October 8 cost
10 study as compared to Mr. Ainsworth's hot-cut process, 5 of the 8 departments³⁵ are
11 **not** involved in the hot-cut process for copper or UDLC³⁶, and the worktimes for the
12 largest, and smallest of the two remaining departments are slashed in half. Simply
13 put, Mr. Ainsworth's hot-cut process for copper / UDLC served UNE-P lines is not
14 accurately described by the October 8 Cost study.

15 4. Mr. Ainsworth does not testify that the costs recovered by the COVAD
16 crossconnect (H.1.9) are additional costs which Bellsouth is entitled to recover, which
17 are not already recovered in the A.1.1 and A.1.2 nonrecurring cost study. BellSouth
18 is double recovering these costs under its current billing practice toward Supra.
19

31 See Ainsworth Sept. 21, 2004 depo. Tr., pg. 18.

32 See Ainsworth Sept. 21, 2004 depo. Tr., pg. 54, 87.

33 See Ainsworth Sept. 21, 2004 depo. Tr., pg. 87, 117.

34 See Ainsworth Sept. 21, 2004 depo. Tr., pg. 54.

35 For which cost is recovered in the October 8 study, plus the travel component of I&M, also eliminated.
36 and their function is not replaced by any other

1 **Q. HOW IS THIS IMPORTANT?**

2 A. While much of Mr. Ainsworth's testimony is verbatim from what he filed in 030851-TP³⁷
3 TRO docket, in his Direct Testimony, page 2, lines 13-18, Mr. Ainsworth adds the claim that his
4 testimony will disprove Supra's assertions regarding the difference in the processes involved in a
5 UNE-P to UNE-L hotcut as compared to what BellSouth is currently recovering for CLEC
6 customers for A.1.1 and A.1.2 nonrecurring charges³⁸. Based upon his deposition testimony, it is
7 impossible for him to demonstrate Supra's assertions are incorrect. In fact, he substantiates
8 Supra's claims.

9 Mr. Ainsworth's direct testimony in this docket, originally written addressing the TRO
10 needs³⁹, is now an attempt to map the new and efficient procedure into a 5 year old cost study
11 which includes cost recovery for 5 departments which **do not even participate** in a hot-cut,
12 **according to Mr. Ainsworth's prefiled and deposition testimony!** Mr. Ainsworth
13 unequivocally admits that the work activities currently being recovered by the A.1.1 and A.1.2
14 are indeed different than what is actually done in a UNE-P to UNE-L hotcut. Nowhere in his
15 testimony does he even attempt to substantiate his claim that the Oct 8 cost study is not different
16 from his hot-cut process.

17
18 **Q. BESIDES THE DEPARTMENTS NOT INVOLVED IN THE PROCESS, AND**
19 **THE WORKTIMES WITHIN INVOLVED DEPARTMENTS WHICH ARE NOT**
20 **ACTUALLY PERFORMED, ARE THERE OTHER ISSUES BETWEEN THE**
21 **OCTOBER 8 COST STUDY AND MR. AINSWORTH'S HOT-CUT PROCESS?**

³⁷ State review of ILEC unbundled switching requirements relative to the FCC TRO order.

³⁸ Including charges for all related items, including the double recovery of the cost connect charge.

³⁹ I.e. Speed, efficiency, scalability, available NOW!

1 A. Yes, several.

2 First, despite deposition notices requesting person(s) most knowledgeable, neither of
3 BellSouth's witnesses have been able to speak with precision about the specific worktimes used
4 in the cost study.

5 Second, and more fundamental, the structure of the two processes are fundamentally
6 different. The current cost structure contemplates a single NRC for SL1 and SL2 loops
7 respectively. Mr. Ainsworth's hot cut testimony contemplate **three such processes per loop**
8 **type** – "individual, project and batch..."⁴⁰, i.e. **three separate NRC rates for A.1.1 and A.1.2**
9 **respectively**. It is undisputed that there must be a different rate for **at least two** of these
10 processes, i.e. individual and batch. Ignoring all FCC testimony and orders proving the need for
11 different rates, we still have the 030851-TP testimony of BellSouth's John Ruscilli:

12 **Q. MR. VAN DE WATER (PAGES 27-28) AND MR.**
13 **GALLAGHER (PAGE 14) CRITICIZES BELL SOUTH FOR NOT FILING**
14 **THE COST STUDY YOU MENTION IN YOUR TESTIMONY (RUSCILLI**
15 **DIRECT, P. 18). IS A COST STUDY RELEVANT TO THIS**
16 **PROCEEDING?**
17

18 A. No. The cost study BellSouth conducted of the batch hot cut
19 process was done using BellSouth's cost model **with the inputs BellSouth**
20 **contends are correct**. The estimated costs for the batch hot cut process were less
21 than the original filed costs for the standalone loop; **however, they were still**
22 **higher than the ordered loop rates set by this Commission because of the**
23 **adjustments made by the Commission to the inputs**. To account for the
24 Commission's Order, BellSouth applied the same adjustments and discounts that
25 the Commission applied to BellSouth's filed costs for the loop that established the
26 individual hot cut rate to the estimated batch hot cut rates. **This resulted in the**
27 **proposed batch hot cut rate being approximately 10% below the ordered**
28 **loop rate**. The rate is driven, therefore, not by BellSouth's cost study so much as
29 by the Commission's UNE Cost Order. (Emphasis Added)
30

31 **Error! Reference source not found.**, surebuttal testimony of John Ruscilli, pg 17, lns 4-19

⁴⁰ Direct testimony Ainsworth, pg 3, and ln. 2.

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Yet, BellSouth now maintains that a batch hot cut process cost study was begun, but never completed. See Caldwell Sept. 21, 2004 depo tr., at pg. 6. This Commission can choose to believe Mr. Ruscilli or it can choose to believe Ms. Caldwell, but it cannot choose to believe both. Either way, BellSouth has yet to produce any cost study which directly addresses a UNE-P to UNE-L conversion, bulk or otherwise. To the best of Supra's knowledge, no CLEC is getting the benefit of a bulk rate. Supra did not,⁴¹. Yet it is indisputable that there should be two, or more, rates for NRC per loop type.

9

10

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12

Only a single rate exists, and that rate only addresses BellSouth's recovery for performing the work to place a new loop into service. It does not address an already working UNE-P line to be converted to UNE-L.

13

Q. SHOULD THE SAME RATE BE USED FOR LOOP NRCS?

14

15

16

17

A. No. The FCC directed that the efficiencies of batch conversion be explicitly addressed In the TRO proceeding. Beyond that, Bellsouth arrived at a voluntary admission that the batch hot cut should be (at least) 10% lower than the A.1.1 rate, based on a cost study they have not filed and which Ms. Caldwell testified was never completed.

18

19

20

We have no reason to believe that the mysterious hot cut cost study does not erroneously have the additional 5 departments worktimes included per Ms. Caldwell in contradiction of Mr. Ainsworth⁴², or how Mr. Ruscilli can conclude it is **only** 10% less if the study was never

⁴¹ Up until BellSouth refused to continue doing bulk conversion for Supra altogether, citing manpower limitations.

⁴² Who testified he was not directly involved in the preparation of the cost study at all. See Ainsworth Sept. 21, 2004 depo. Tr., pg. 13.

1 completed⁴³, but we do know that the 10% savings were based on ignoring every FPSC
2 ordered factor or adjustment to the BellSouth cost studies in 990649-TP⁴⁴! How do we
3 know this? Mr. Ruscilli says so in his rebuttal testimony, cited hereinabove.

4 The import of this is huge. BellSouth's initial cost study filing for the loop NRC was
5 significantly larger⁴⁵ than what the FPSC ultimately approved. The magnitude of this
6 difference is documented below in Table 5

ELEMENT TYPE	BELLSOUTH AUGUST 16, 2000 COST STUDY	FPSC AWARD	DIFFERENCE
A.1.1	██████████	\$49.57	██████████
A.2.2	██████████	\$135.75	██████████

7 **Table 5 – Difference between FPSC award and “..the inputs BellSouth contends are correct”**

8 The net effect is that if BellSouth had used the FPSC ordered adjustments in the mysterious /
9 fictitious cost study testified to by Mr. Ruscilli, the cost reduction would be more significant than
10 the 10% testified to by Mr. Ruscilli, as it would also include the ██████████ in FPSC ordered
11 adjustments, which BellSouth still opposes and refuses to use in its calculations unless ordered to
12 do so

13 Even more disturbing is the fact that, after BellSouth submitted its compliance filing in
14 October 2000, which was intended to precisely duplicate the rates ordered by the Commission,
15 the BellSouth calculated NRC for the A.1.1 cost study was only \$46.50, based on the

⁴³ Caldwell Deposition.-

⁴⁴ See Error! Reference source not found., surebuttal testimony of John Ruscilli Docket 030851-TP, pg 17, lns 4-19, particularly 12-14

⁴⁵ See Error! Reference source not found., surebuttal testimony of John Ruscilli Docket 030851-TP, pg 18, LN. 6-8

1 Commission ordered adjustments and a correction made by BellSouth to the WMC input. See
2 Caldwell Sept. 21, 2004 depo tr., at pg. 23-4. Yet, the Commission kept the rate at \$49.57, \$3.07
3 higher than what it should have been. BellSouth has quietly been over-recovering its costs by
4 this amount on every newly installed SL1 and SL2 loop since this rate was put into effect. Supra
5 suggests that this Commission correct this oversight as it pertains to the non-recurring costs of
6 installing a new SL1 loop, as BellSouth has been receiving a windfall since May 2001.

7

8 **Q. DOES THE BULK, OR ANY OTHER HOT-CUT COST STUDY TESTIFIED TO**
9 **BY MR. RUSCILLI EVEN EXIST?**

10 A. BellSouth has had two years and three dockets to produce it in, and they have so far not
11 offered anything other than the August 16, 2000 cost study **which this Commission already**
12 **found invalid**, despite specific discovery requests to produce it. This, coupled with Ms.
13 Caldwell's deposition testimony that it was never completed, and that she would be aware of any
14 other BellSouth cost study created for regulatory filings, Supra can only conclude that to this
15 very date, BellSouth does not have a cost study which describes the UNE-P to UNE- L hotcut
16 process.

17

18 **Q. AT PAGE 9, LN 10 TO PG 10, LN 6 MR. AINSWORTH IDENTIFIES**
19 **BELLSOUTH'S INDIVIDUAL HOT CUT PROCESS. DOES SUPRA ACCEPT**
20 **THIS PROCESS?**

21 A. Generally, yes. While specific worktimes have yet to be addressed by BellSouth in
22 response to Supra's discovery, or by the designated corporate witnesses deposed for this specific
23 purpose, the process itself remains a viable basis for cost recovery.

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Q. DOES SUPRA STILL HAVE ISSUES WITH BELLSOUTH'S HOT-CUT PROCESS AS TESTIFIED TO BY MR. AINSWORTH?

A. Yes. They are as follows:

1. Specific worktimes have yet to be addressed by BellSouth's response to Supra's discovery, or by the designated corporate witnesses deposed for this specific purpose. While many departments have been eliminated from the cost study, Supra does not yet endorse the worktimes for those steps which remain; notably for the CWINS, CO Forces and I&M departments, among others.
2. BellSouth substantially reduced the worktimes for the WMC center⁴⁶ but admits that the single worktime listed is for both outside plant and Central office dispatch, but BellSouth cannot identify what fraction is for CO dispatch so the avoided cost of outside plant dispatch may be omitted where necessary.
3. Supra has been encouraged by the process improvements already completed, including the implementation of the e-mail notification processes, but Supra does remain concerned about the frequency of customer outages within 48 hours after conversion, after having been burned by this "feature" of the BellSouth OSS for resale orders in 1997-98, and UNE-P orders in 2001-2002 timeframes,
4. Furthermore, regarding the No Dial Tone (and other) loop outages following conversion, BellSouth recovers the cost for performing troubleshooting at the crossbox and the premises in the INPUTS_CONNECT&TEST, SSI&M and I&M department section of the October 8 Cost study⁴⁷, yet BellSouth **continues to bill Supra, \$80, 90, \$110, up to \$150 per occurrence** to repair these BellSouth caused outages, in some cases taking at least 4 such extra cost trips at Supra's expense to repair the outage caused by BellSouth's process.
5. The interconnection agreement between the parties specifies a completely different hot-cut process for UNE-L which was ordered to be placed into our agreement by the Commission based upon the AT&T

⁴⁶ Although it reduced its worktime tenfold between the August 2000 and October 2001 cost studies, BellSouth continues to recover **ten times** the worktime filed in the October 8, 2001 cost study as the Commission considered this 10x factor as reported by the August 16, 2000 cost study and BellSouth did not seek to correct this error because it believed the FPSC factors were incorrect and that it was entitled to more.

⁴⁷

1 arbitration in which Supra was not a party. The interconnection agreement
2 should be amended to use the most efficient and forward looking process
3 available.
4

5 **Q. IN A PURE ANALYSIS – WHAT IS A HOT-CUT?**

6 A. It is quite simply, exactly what BellSouth witnesses testified that it is during testimony in
7 Docket 03-0851TP. That is:

8 A hot cut, simply defined, is moving a jumper from one location to another. The
9 hot cut itself involves basic network functions and skills that are used repeatedly
10 in BellSouth's Network every day. The extensive number of customers being
11 served in Florida by a combination of a BellSouth loop and a CLEC switch
12 demonstrates that BellSouth has a hot cut process that works.
13

14 **(Error! Reference source not found.** Direct Testimony of Kenneth Ainsworth in Docket
15 030851-TP at page 3)
16

17 The hot cut case is simple because it involves a process that has been around for
18 100 years – moving a jumper from one location to another. BellSouth can do it,
19 AT&T can do it, and MCI can do it.⁴⁸
20

21 A hot cut is no less, but most importantly by BellSouth's sworn testimony, it is no more, either.
22

23 **Q. IS THIS AN OVERSIMPLIFICATION OF THE ACTUAL BELLSOUTH**
24 **PROCESS?**

25 A. In my Direct Testimony I answered this question as follows:

26 A. Perhaps, but if so the confusion is caused by BellSouth in pursuing
27 the mutually exclusive goals of TRO simplicity, and achieving a
28 maximum rate in this Docket. On the one hand, BellSouth asserts
29 that each and every one of the steps costed in the A.1.1 and A.1.2
30 NRC cost study⁴⁹ are actually performed and properly costed

⁴⁸ See Direct Testimony of BellSouth's John A. Ruscilli in Docket No. 030851-TP, pg. 13, filed December 4, 2003.

⁴⁹ Indeed, BellSouth asserts that the August 16, 2000 cost study (**Error! Reference source not found., file FL-2w.xls**) is the appropriate cost study (even though it does **not** reflect FPSC ordered adjustments which lowed BellSouth's \$71+ estimate to the \$49.57 rate we have today for a new A.1.1 loop.

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before this commission **even though the exact process was developed and revised much later**. All told, this cost study accumulates the **thirty four (34)** individual work activities, performed by **nine (9)** different paygrades, in **seven (7)** separate departments. BellSouth now claims that such is a true and accurate assessment of its work activity in this docket where BellSouth is seeking the maximum possible rate. Yet, in the TRO proceeding, where the burden of proof is unequivocally on BellSouth, the hot-cut is defined by just **five (5)** work activity steps performed by three (3) departments.

12 Again, it has become crystal clear from the deposition of Mr. Ainsworth that the hot-cut process
13 BellSouth actually uses, and is defined and described by the testimony of Mr. Ainsworth and Mr
14 Milner in various Dockets is not the process for which the FL-2w.xls cost study describes.

15 Neither does the hot-cut process as defined by Mr. Ainsworth address any of the 8
16 Alternatives that he testifies to. In essence, there is no record evidence that states that Bellsouth
17 a) is seeking, b) is entitled to, or c) is different than the work activities already testified to by Mr.
18 Ainsworth. Lacking such testimony, or evidence, the rate should be based upon the process
19 testified to by Mr. Ainsworth, and Bellsouth should be denied further cost recovery.

20

21 **Q. DID BELLSOUTH EVER ACTUALLY PREPARE A HOT CUT COST STUDY?**

22 A. No, despite Mr. Ruscilli’s testimony in Docket 030851-TP , according to Ms. Caldwell
23 (CITE Depo).

24

25 **Q. IN YOUR DIRECT TESTIMONY YOU WERE ASKED “ACCORDING TO MR.**
26 **AINSWORTH’S SWORN TESTIMONY IN THE TRO SWITCHING DOCKET,**

1 **030851-TP, WHAT PORTIONS OF THE FL-2W.XLS COST STUDY⁵⁰ ARE NOT**
2 **LEGITIMATELY INCLUDED IN A HOT CUT NON-RECURRING COST? “**
3 **HAS ANY NEW INFORMATION BEEN PROVIDED BY BELLSOUTH WHICH**
4 **EITHER PROVES OR REFUTES YOUR INITIAL POSITION?**

5 A. There are numerous worksteps of the [REDACTED]
6 [REDACTED]
7 [REDACTED] departments. A
8 graphical comparison of these differences is seen by comparing Table 1 - Nonrecurring Labor
9 tab from the October 8, 2001 cost study A.1.1 and A.1.2 to Table 2 - Nonrecurring Labor tab
10 from the Supra Exhibit # DAN-45 Group 1 Copper UDLC Cost study cost study A.1.1 and A.1.2
11 showing the departments removed and worktimes reduced from the hot-cut cost recovery by Mr.
12 Ainsworths deposition testimony, above. This alone should prove Supra’s case, however to be
13 specific and precise, the following issues which **are contained** within the NRC rate set for A.1.1
14 and A.1.2 elements **are not contained** within Mr. Ainsworth’s hot cut definition⁵³, or
15 flowchart⁵⁴ :

⁵⁰ **Error! Reference source not found.**, the OCTOBER 8, 2001 Compliance filing study
⁵¹ In my Direct testimony I testified to 9 department/paygrades. This was before Supra detected the
inadvertent “multiply by zero” error in BellSouths October 8 cost study which resulted In the worktimes for the
WMC department being nullified for A.1.1 element. Had the cost study been properly prepared, my earlier
testimony would have reflected ten (10) department / paygrades.
⁵² 11 for the A.1.2 element
⁵³ **Error! Reference source not found.** Direct Testimony of Kenneth Ainsworth in Docket 030851-TP at
page 10
⁵⁴ See **Error! Reference source not found.** for Exhibit KLA-1 to Mr. Ainsworth’s testimony.

1 **Q. SUPRA IS FILING A REVISED COST STUDY (SUPRA EXHIBIT # DAN-45) TO**
2 **REPLACE ITS EARLIER FILED STUDY (ERROR! REFERENCE SOURCE**
3 **NOT FOUND.). WHY IS THAT AND WHAT ARE THE DIFFERENCES?**

4 A. As a result of discovery received since filing testimonies, and the deposition testimony of
5 Ms. Caldwell, and the currently incomplete deposition of Mr. Ainsworth, new information has
6 been provided which:

- 7 1. Explicitly eliminates certain departments from participating in a UNE-P to
8 UNE-L hotcut where the lop is served by Copper / UDLC [REDACTED] of all
9 Bellsouth loops...)
- 10 2. Explicitly eliminates certain worksteps from the remaining [REDACTED]
11 departments⁵⁵.
- 12 3. Addresses Ms. Caldwell's concern that worktimes were zeroed instead of the
13 probabilities being adjusted.
- 14 4. Addresses the new information that [REDACTED]
15 [REDACTED] referred to by Mr.
16 Ainsworths testimony.
- 17 5. Deals with the inconsistent method in which the probabilities were, or were
18 not, included in formulas In the October 8 cost study.
- 19 6. Corrects undetected BellSouths errors in the October 8 cost study.
- 20 7. Indicates that Supra's reliance on Mr. Ainsworths testimony that "only 2:39"
21 is needed to perform the hotcut in the Central office.

⁵⁵ Listed in the October 8 2001 cost study.

- 1 8. Addresses fully the A.1.2 installation, the installation of subsequent A.1.1 and
2 A.1.2 loops, and addresses the first and subsequent disconnect of the A.1.1.
3 and A.1.2 loops. Supra's earlier cost study was incomplete except for the first
4 install of the A.1.1 loop.
- 5 9. Addresses the double recovery of cost, disconnect where the October 8 cost
6 study recovers the identical cost, for the identical activity **from both the**
7 **disconnecting CLEC and the carrier to whom the line is being**
8 **transferred.**⁵⁶

9 While BellSouth may still not be ready to endorse Supra's cost study as being reflective of
10 hotcuts form/to Copper/UDLC, this cost study represents Supra's best efforts to craft a cost study
11 **based upon BellSouth testimony and discovery** so that an agreement might be reached.

⁵⁶ This includes Bellsouth and / or all other CLECs. Where Bellsouth recovers a cost of performing a step on installation, the disconnecting carrier cannot be charged the same cost recovery, **even if the new carrier is BellSouth, who must pay its own share of installation costs and not place that burden upon the CLEC as it has done in this cost study.**

1 Q. WHAT SPECIFIC CHANGES WERE MADE TO THE BELLSOUTH COST
2 STUDY TO CREATE THE REVISED GROUP 1 COST STUDY FOR UNE-P
3 LOOPS WHICH REMAIN SERVED BY COPPER OR UDLC BEFORE AND
4 AFTER THE CONVERSION?
5

6 IV.B. General

7 All worktimes previously modified in Supra's earlier revision of this cost study were
8 restored the he BellSouth values (unless noted below) and the probabilities were altered per Ms.
9 Caldwell's concerns.

10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 [REDACTED]
19 [REDACTED]
20
21 [REDACTED]

⁵⁷ Which has no real effect as the probability is also zero.

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[REDACTED]

⁵⁸ And the affidavit of Mr. Keith Milner in the Florida / Tennessee 271 proceeding.

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[REDACTED]

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6 **Q. WHAT SHOULD THE RATE BE FOR NON-IDLC LINES?**

7 A. The rate should not exceed \$7.53 install / \$0.7606 disconnect for SL1, and \$8.69 /
8 \$0.7606 for SL2.

9

10 **Q. ARE THERE ISSUES WHERE BELL SOUTH DOES NOT AGREE WITH THE**
11 **SUPRA COST STUDY.**

12 A. We don't know yet. They should with the exception of the worktimes for the CO Forces,
13 and possibly the issues regarding the double recovery in disconnect of charges recovered from
14 the next carrier. Otherwise this is as close to Mr. Ainsworths testimony as we could possibly
15 make it.

16

17 **Q. WHAT RATE DOES THE SUPRA COST STUDY INDICATE FOR A UNE-P TO**
18 **UNE-L CONVERSION WHERE THE UNE-P LOOP IS SERVED BY COPPER**
19 **OR UDLC?**

20 **Based upon Mr. Ainsworths deposition and the Supra cost study modified as stated above,**
21 **Supra's previous position of \$5.27 cents has changed to \$7.53 install / \$0.7606 disconnect for**
22 **SL1, and \$8.69 / \$0.7606 for SL2.⁵⁹ We have still been unable to depose anyone who can**

⁵⁹ A.1.1, \$.70 for A.1.2. See Supra Exhibit # DAN-45

1 testify as to the exact worktimes in the CO forces⁶⁰ with specificity, much less to resolve the
2 difference between Mr. Ainsworth's testimony that the Central Office Forces take just 2:39 to
3 actually perform a hot cut, BellSouths attempt to recover 15/20 mins for this activity, and new
4 Bellsouth discovery which indicates they now seek 21/??? Minutes for this activity. Resolving
5 this will have a noticeable effect on the final cost ranging between an final rate of \$4.xx to
6 \$12.00. To date BellSouth has not provided any substantive responses to Supra's discovery
7 requests to document precisely what work activities the BellSouth claim of 15 min(SL1) and 20
8 min (SL2) consist of except a list of work activities⁶¹ which contain duplicative and avoided
9 tasks⁶² and a more recent list⁶³ containing activities and times which amount to **26 minutes** of
10 the 10 minutes BellSouth claims for a SL1 Conversion. Supra will inevitably have to file one
11 more revision to the cost study as a result of the upcoming round of depositions.

12

13 **Q. ARE THESE THE LOWEST RATE(S) THE COMMISSION SHOULD**
14 **CONSIDER?**

15 A. No. There are substantive issues surrounding the fact that Supra left in its cost study
16 certain work activities included In the A.1.1 / A.1.2 cost study (as described above) due to
17 BellSouths refusal to provide information on said activities, which were later revealed to be
18 absent from Mr. Ainsworth's TRO hot cut flowchart⁶⁴, or the Affidavit of Mr. Keith Milner in
19 the Florida / Tennessee 271 proceeding.

⁶⁰ Or any other department.

⁶¹ But no times.

⁶² Per Deposition of Daonne Caldwell.

⁶³ Created last February at my request but never sent to Supra until last weekend.

⁶⁴ *See Error! Reference source not found.*

As such, Supra's cost study has been compromised by the current lack of discovery from BellSouth, and a full and open cost proceeding could, should, and will arrive at a lower rate still.

Q. DOES THIS FULLY ADDRESS THE ISSUE 3 COST ANALYSIS?

A. No. A bulk conversion process is mandated by the FCC and quite essential when one considers that Supra has upwards of 20,000 UNE-P lines in some offices. BellSouth has proposed a bulk conversion process, and even created a cost study. Once Supra has had a chance to review BellSouth's cost study and proposed worktimes and processes, it will be in a better position to state exactly what the appropriate costs should be for such.

Q. WHAT DOES THAT LEAD YOU TO CONCLUDE ABOUT A BULK HOT CUT RATE FOR LOOPS SERVED BY COPPER OR UDLC?

A. It must be at least 10% less than the individual hot-cut cost, but again, until Bellsouth shares the process and identifies the cost savings as requested, we cannot be more explicit.

1 V. ISSUE 4 - SHOULD A NEW NONRECURRING RATE BE CREATED THAT
2 APPLIES FOR A HOT-CUT FROM UNE-P TO UNE-L, WHERE THE LINES
3 BEING CONVERTED ARE SERVED BY IDLC, FOR (A) SL1 LOOPS AND (B)
4 SL2 LOOPS? IF SO, WHAT SHOULD SUCH NONRECURRING RATES BE?

5
6 Q. AT PAGE 9, LN 10PG 10, LN 6 MR. AINSWORTH IDENTIFIES BELLSOUTHS
7 INDIVIDUAL HOT CUT PROCESS. DOES SUPRA ACCEPT THIS PROCESS
8 FOR IDLC CONVERSIONS?

9 A. Yes. Although Mr. Ainsworth does not offer any specific changes, or versions of this
10 procedure to implement the "8 Methods" for IDLC conversion which he testifies about, the
11 reason for that may be understood by previous testimony of BellSouth witnesses in 990649.

12
13 Q. IN DEFINING "NON-RECURRING COST", SHOULD SUBCATEGORIES BE
14 RECOGNIZED IN DEALING WITH WHETHER THE COST SHOULD BE
15 RECOVERED AS NONRECURRING OR RECURRING?

16 A. Yes. Task related non-recurring costs that repeat, each time an ALEC or ILEC places a
17 service order are a legitimate non-recurring charge. For example, the non-recurring cost to move
18 a cross-connect, or change the carrier code from ILEC to ALEC in the OSS is directly related to
19 the service provisioned.

20
21 Within that category, non-recurring costs to convert a working circuit to another carrier are
22 different than placing a circuit in operation at a given address. The current structure of just one
23 non-recurring rate per UNE loop is allowing the ILEC undue enrichment for activities that are
24 not performed. For example, the non-recurring cost to combine NID, Subloop distribution and

1 Subloop feeder components together into a full loop to the customer is a cost that is substantially
2 higher than the non-recurring cost to switch an existing, in-service loop from one carrier to
3 another. Yet with the exception of the limited scope of order PSC-98-0810-FOF-TP⁶⁵, most
4 ALECs in Florida are paying charges for placing a loop in service, for the first time, whenever
5 they order a conversion of a working circuit.

6

7 The non-recurring costs of infrastructure, purchase, and construction is a cost to be shared by the
8 carriers using the facility, over the useful life of the facility. Beyond this point the cost model
9 needs to deal with the facility in a different fashion depending upon whether it remains in service
10 or not.

11

12 **Q. DOES THE TESTIMONY OF BELLSOUTH WITNESS VARNER AND SPRINT**
13 **WITNESS SICHTER IN DOCKET 990649-TP SHOW ILEC AGREEMENT ON**
14 **THIS ISSUE?**

15

16 A. A. Yes. Sprint witness Sichter states that “To the extent that high non-recurring charges
17 are a significant barrier to competitive entry, it may be appropriate to require at least a portion of
18 those non-recurring charges through recurring rates. This is in recognition of the FCC’s
19 continued efforts to ensure that such non-recurring rates could and might be used by an ILEC to
20 prevent a new competitive carrier from competing with the ILEC in a given area or on a specific

⁶⁵ Page 55-56

1 product. Unfortunately his final conclusion on this issue ignores this statement in favor of
2 financial protection for the ILEC.

3
4 BellSouth witness Varner then goes on to make statement that “In a competitive environment, a
5 provider’s ability to predict how long an ALEC will remain on the provider’s network is limited
6 ”⁶⁶. Sprint witness Sichtler states “... the incumbent LEC is financially exposed if the ALEC
7 discontinues service before the non-recurring costs are fully recovered.”⁶⁷ Whether it is the high
8 cost burden of current non-recurring charges that causes an ALEC to discontinue leased services,
9 or other reasons, both Sprint and BellSouth indicate that users of facilities will change over the
10 life of the facility.

11
12 In spite of their recognition that there must not be barriers to entry in the competitive market, and
13 that the users of facilities will change over time, both ILEC witnesses go on to ask the
14 commission for financial protection from an ALEC who cancels service early!

15
16 This limited view of reality is trying to deal with non recurring costs related to the first user,
17 rather than the life of the facility. It ignores the fact that over the useful life of the facility, the
18 ILEC itself may well be a user of the facility. It also ignores the fact that due to universal service,
19 a large portion, if not all of the listed UNEs would have to be constructed anyway. Therefore
20 when an ALEC is not leasing a specific UNE, the ILEC may still be generating revenue from it,
21 either by leasing or from Universal Service funds.

⁶⁶ BellSouth witness Varner page 33, line 13.

⁶⁷ Sprint witness Sichtler page 26, line 3.

1

2 The non-recurring infrastructure charges should be apportioned between the ILEC and all
3 ALECs based upon who has “ownership” of the facility in a given month. These charges should
4 be assessed throughout the amortized life of the equipment. Any attempt to charge non-recurring
5 infrastructure costs to the first user of a facility at a higher rate than subsequent users of the
6 facility violates creates an unnecessarily high barrier to entry.

8 **Q. HOW DOE THESE POSITIONS FROM THE GENERIC UNE DOCKET**
9 **IMPACT THE DECISIONS IN THIS DOCKET?**

10 A. Simply put, the costs for constructing, or adding facility capability must be spread across
11 all ultimate users and not concentrated upon the first carrier who utilized the new arrangement.
12 As such the non-recurring costs for alternative 7 &8 should be recovered through a recurring
13 charge, and the nonrecurring charges for actually using the new facilities be the same fro
14 Alternative 3 a for 7&8. Similarly the NRC for Alternative 5 and 6 should be the same, with the
15 installation costs for Alternative 6 are recovered through a recurring charge, such that the NRC
16 for Alternative 5 & 6 are identical.

17

18 **Q. CAN YOU PROPOSE A TEST TO DETERMINE WHETHER A COST SHOULD**
19 **BE INCLUDED IN THE RECURRING CHARGE?**

20

21 A. Well defined, repetitive costs related to service provisioning should remain non-recurring
22 costs. However the cost of placing a loop in service should recognized as substantially different
23 from converting an existing, in-service loop from one carrier to another. The non-recurring rates

1 set by this commission should reflect these very different costs. This is true whether the new
2 carrier is provisioning service via UNE combination⁶⁸ or directly from their own facilities based
3 equipment.

4
5 This test addresses witness Varner and Sichters concern⁶⁹ that an ALEC might cancel
6 service earlier than expected. The ALEC is billed direct costs of provisioning service as a non-
7 recurring rate, and construction costs are assessed to all users over the life of the facility.

8
9 Another test for whether a non recurring cost should be separate from the recurring
10 charge are ICB charges. Typically all ICB costs are actually infrastructure construction – they
11 vary depending on physical circumstances and cannot be modeled specifically. ICB charges
12 should be included in recurring rates where they get picked up by the cost model and apportioned
13 to all users.

14
15
16 **Q. ARE THERE TRULY 8 DIFFERENT METHODS?**

17 **A. No. Yet there should be at least one additional method** which has not been addressed on
18 this list.

19 **First, after reflecting on the cost recovery rules stated above, there are not 8 distinct**
20 **methods, as 3 of the methods (Alternatives 6, 7, and 8) are simply doing infrastructure re-**
21 **arrangement, or construction in anticipation of using the constructed facilities to actual do a**

⁶⁸ As provided for by this commission in PSC-98-0810-FOF-TP, conclusion on pages 55-56.

⁶⁹ As testified to in 99-0649-TP.

1 conversion via Alternative 5 (from Alternative 6) or Alternative 3 (from Alternative 7 or 8). As
2 previously testified to by BellSouth witnesses Varner and Sichter outlined above, it is
3 BellSouth's position that to be in compliance with FCC orders, such infrastructure construction
4 is properly recovered under a recurring cost, not a non-recurring charge imposed on the "first
5 adopter", but spread evenly across all carriers, CLEC or ILEC, who benefit from that facility.
6 Therefore Alternatives 6, 7 and 8 should not be separately addressed from the root alternatives 3
7 and 6, but included as single groups.

8

9 **Q. HOW CAN ONE CLASSIFY THE "8 METHODS" FOR CONVERTING IDLC**
10 **SERVED UNE-P TO UNE-L IN SIMPLE TERMS?**

11 A. Supra uses the following designations:

- 12 Alternative 1 – Convert IDLC served loop to Copper (Method 1 full loop reassign)
13 Alternative 2 – NGDLC virtual Remote Terminal on existing loop.
14 Alternative 3 – Convert IDLC Served loop to Copper – (Method 2 subloop
15 reassign), or UDLC
16 Alternative 4 – Utilize INA or other DCS connected IDLC system on existing loop
17 or move to such system.
18 Alternative 5 – Class 5 switch – Switch mod hairpin to sidedoor for newer Lucent
19 switches.
20 Alternative 6 – move service to a different loop so that Alternative 5 may be
21 utilized
22 Alternative 7 – Install UDLC system(s) so that Alternative 3 may be used.
23 Alternative 8 – Convert IDLC to UDLC so that Alternative 3 may be used.
24

25

26 **Q. WHAT IS THE NINTH METHOD WHICH SUPRA REQUESTED FROM**
27 **BELLSOUTH, BEFORE BEING GIVEN A COPY OF THE "8 METHODS"?**

1 A. Additionally, Supra originally suggested to BellSouth that due to the vast numbers of
2 Supra customers⁷⁰, that BellSouth move⁷¹ all Supra lines in a remote terminal on one or more
3 DLC(s) assigned for Supra use. After discussion on this issue, BellSouth asked if Supra was
4 willing to pay for the entire DLC system, whether fully used or not. Supra agreed, anticipating
5 that the UNE elements identified by Element A.3.x could be used.

6 (Not identified by BellSouth)

7 Alternative 9 - Lease Supra entire IDLC systems at the rates established by this
8 commission for elements for A.3.x, sited in a remote terminal.
9

10 However, despite providing a CLEC ordering manual for this UNE⁷² BellSouth has
11 refused outfight to allow Supra to purchase this method of access to Subloops when it exists in a
12 remote terminal or b to have the A.3.x element connected to a BellSouth subloop. According to
13 BellSouth, the A.3.x loop concentration system cannot be used with a BellSouth provided
14 subloop (A.2.x), even though the BellSouth product manager, Jerry Latham, has told Supra it is
15 technically feasible to do so.

16
17 **Q. IS THERE A WAY TO SIMPLIFY THE COPPER UDLC AND THE NINE IDLC**
18 **CONVERSION METHODS SO AS TO AVOID PRODUCING 11 DIFFERENT**
19 **COST STUDIES FOR THIS ISSUE?**

⁷⁰ approximately 1/2 of all competitive lines statewide based upon Last March's TRO
testimony

⁷¹ i.e. "groom".

⁷² See Supra Exhibit # DAN-51, BellSouth UNE Loop concentration CLEC manual.

1 A. Yes. Supra has combined these alternatives into groups for analysis of cost based upon
2 the work to be actually done, and ignoring construction of facilities, which by BellSouth's own
3 testimony, is properly supported under the existing structure to capture recurring costs.

4 These groups are:

5 **Issue 3**

6 Group 1 – Copper or UDLC served UNE-P loops⁷³.

7

8 **Issue 4**

9 Group 2 – IDLC Alternative 1, 3, 7 and 8. – Move to copper or UDLC⁷⁴.

10 Group 3 – IDLC Alternative 2 – NGDLC virtual Terminal⁷⁵

11 Group 4 – IDLC Alternative 4 – INA and DCS served IDLC (similar to Group 3)⁷⁶

12 Group 5 – IDLC Alternative 5 and 6 – Switch Side door (similar to Group 3)⁷⁷

13 Group 6 – Use of the A.3.x UNES connected to A.2 subloops in a remote terminal.

14

15 When the alternatives are grouped in this fashion, it becomes quite simple to apportion the costs
16 for the various methods into individual rates for separate activities (such as Supra has requested
17 in this Docket), or into a more monolithic statewide rate as advocated by BellSouth. It is a
18 simple matter of allocating the methods by the factors which define the distribution of such
19 devices within the BellSouth network. By apportioning the costs based upon the statewide
20 deployment, BellSouth's interests are protected – they may achieve full cost recovery without
21 having to resort to a single monolithic NRC rate statewide. And Supra then pays only for what it
22 uses, and is not compelled to subsidize another CLEC's⁷⁸ business plan by paying for labor it
23 never enjoys. Similarly, the weighted average of the various group rates will equal the statewide
24 rate, if the latter was properly calculated in the first place.

73 See Supra Exhibit # DAN-45

74 See Supra Exhibit # DAN-46

75 See Supra Exhibit # DAN-47

76 See Supra Exhibit # DAN-48

77 See Supra Exhibit # DAN-49

78 Or BellSouth

1
 2 **Q. HOW SHOULD SO MANY DIFFERENT PROCESSES, EACH WITH ITS OWN**
 3 **COST, BE ADDRESSED BY THE COMMISSION IN SETTING A RATE?**

4 A. Supra believes the rate should reflect the work actually done on its behalf as this
 5 Commission previously ordered in PSC-01-1181-FOF-TP, and if there must be a single IDLC
 6 conversion rate, than that rate must be weighted appropriately based upon the percentage of
 7 loops served by a given "alternative" technology. Based upon BellSouth's response to Supra
 8 Interrogatories #20-24 (Supra Exhibit # DAN-42) and Supra's analysis and calculations upon
 9 that (Supra Exhibit # DAN-43) we are given the following picture of loop service methods in
 10 BellSouth's Florida network;

LOOP SERVICE METHOD	LINECOUNT	PERCENT	SUPRA	BELLSOUTH
Copper	3,250,835	53.46 %	Group 1&2	Copper, Alt. #1, 3, 7, 8.
IDLC - Not NGDLC.	1,198,017	19.70 %	Group 4	Alternative 1, & 4
IDLC - NGDLC	1,108,435	18.23 %	Group 3	Alternative 2
UDLC - - Not NGDLC	355,980	5.85 %	Group 1	Alt. #1, 3, 7, 8.
UDLC - NGDLC	167,211	2.75 %	Group 2	Alternative 2
DLC/NGDLC sidedoor	8,259	0.1%	Group 5	Alternative 5 & 6
	6,080,478	100 %		

11 **Table 6 - Linecount and Percentage by serving Method - BST Florida**

12
 13 This data shows that Supra's Copper / UDLC cost study is applicable to more than 62%
 14 of all loops in Florida. As Supra's study, based on Mr. Ainsworth's hot-cut process, is less than
 15 25% the cost of the existing A.1.1 loops NRC, this becomes a significant factor in Supra's
 16 wholesale cost.

1 Put in the opposite way, under BellSouth's proposed cost structure, it is currently over-
2 recovering 400% of its actual costs in performing UNE-P to UNE-L conversion on **over 62% of**
3 **all UNE-L loops statewide.**

4
5
6 **Q. HAS SUPRA PREPARED COST STUDIES DOCUMENTING COST GROUPS 2 –**
7 **6 AS WELL?**

8 A. Attached to this testimony, Supra files cost studies for Groups 2 through 5 (Supra Exhibit
9 # DAN-46 *Confidential* - Supra Group 2 Cost Study - IDLC served UNE-P to Copper UDLC
10 UNE-L Cost Study FL-2w.xls. Dated 10/08/2004, Supra Exhibit # DAN-47 *Confidential* -
11 Supra Group 3 Cost Study – NGDLC UNE-P to NGDLC Virtual Terminal UNE-L Cost Study
12 FL-2w.xls. Dated 10/08/2004 , Supra Exhibit # DAN-48 *Confidential* - Supra Group 4 Cost
13 Study – INA or other DCS served IDLC UNE-P to UNE-L Cost Study FL-2w.xls. (Similar to
14 Group 3 Supra Exhibit # DAN-47) Dated 10/08/2004 , Supra Exhibit # DAN-49 *Confidential* -
15 Supra Group 5 Cost Study –IDLC UNE-P to Switch Side Dorr UNE-L Cost Study FL-2w.xls.
16 (Similar to Group 3 Supra Exhibit # DAN-47) Dated 10/08/2004.

17 Supra is not filing accost study for group 6 because correct or incorrect, this commission
18 ahs already ruled upon the costs for this type of service in Docket 990649-TP, and Bellsouth has
19 implemented this according to its 11/22/2000 - BellSouth UNE-P Loop Concentration document
20 for CLECs “Unbundled Loop Concentration CLEC Information Package”, Version 1 (Supra
21 Exhibit # DAN-51) attached. The only statement of material fact in dispute is whether BellSouth
22 may legally restrict the Deployment of the loop concentration UNE **in central offices**, and
23 restrict its availability in remote terminals, and whether BellSouth may continue, legally, to

1 refuse to connect BellSouth subloops to this system. Currently BellSouth position is that only
2 CLEC owned loops may be connected to this UNE, as hard as that is to believe, particularly
3 because they state it is only available within the CO.

4 However this limitation is not evident in this Commissions orders in 990649-TP, nor does
5 it make sense from a technical feasibility, or a legal standpoint. Once these two threshold issues
6 are resolved, resolved, existing costs will be used for Group 6 conversions

7 .

8 **Q. WHAT SPECIFIC CHANGES WERE MADE TO THE BELLSOUTH COST**
9 **STUDY TO CREATE THE GROUP 3 COST STUDY FOR UNE-P IDLC LOOPS**
10 **WHICH MUST BE CONVERTED TO COPPER OR UDLC?**

11 A. Again, all worktimes were reset to Bellsouth figures unless otherwise detailed below, and
12 the adjustments affected through the probability factors.

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9

10 **Q. WHAT RATE DOES THE SUPRA COST STUDY INDICATE FOR A UNE-P TO**
11 **UNE-L CONVERSION WHERE THE UNE-P LOOP IS SERVED BY IDLC**
12 **BEFORE AND COPPER OR UDLC AFTER CONVERSION?**

13 Based upon Mr. Ainsworths deposition and the Supra cost study modified as stated above,
14 \$59.62 install / \$0.7606 disconnect for SL1, and \$62.81 / \$0.7606 for SL2.⁷⁹ We have still been
15 unable to depose anyone who can testify as to the exact worktimes in the CO forces⁸⁰ with
16 specificity, much less to resolve the difference between Mr. Ainsworth's testimony that the
17 Central Office Forces take just 2:39 to actually perform a hot cut, BellSouths attempt to recover
18 15/20 mins for this activity, and new Bellsouth discovery which indicates they now seek 21/???
19 Minutes for this activity. Resolving this will have a noticeable effect on the final cost as
20 discussed above for the Group 1 cost study.

21

⁷⁹ A.1.1, \$.70 for A.1.2. See Supra Exhibit # DAN-46 *Confidential* - Supra Group 2 Cost Study - IDLC served UNE-P to Copper UDLC UNE-L Cost Study FL-2w.xls. Dated 10/08/2004
⁸⁰ Or any other department.

1 **Q. IS SUPRA SEEKING A SINGLE RATE FOR ALL FORMS OF IDLC**
2 **CONVERSION BASED UPON MR. AINSWORTH'S LIMITED TESTIMONY?**

3 **A.** No. The reason why Supra is not "seizing this opportunity" to capitalize on BellSouth's
4 omission is quite simple; It would cost Supra money. BellSouth has not filed IDLC conversion
5 cost studies because if it did, it would indicate an extremely low cost as compared to a copper /
6 UDLC conversion. Bellsouth has deliberately not filed IDLC conversion cost studies because
7 BellSouth would be forced to bill CLECs less than it does today.

8
9 **Q. HOW IS THAT POSSIBLE?**

10 **A.** Because Bellsouth does not have to use archaic and obsolete processes to convert much
11 of its IDLC served loops to CLEC switches. In his deposition testimony, Mr. Ainsworth
12 admitted that for Alternative 2, the NGDLC served loop, no manual process by any human being
13 is required to convert the loop from the BellSouth switch See Ainsworth Sept. 21, 2004 depo.
14 Tr., pg. 125-26. However this requires certain non-efficient, old-fashioned constraints are
15 removed from the process

16
17 **Q. WHAT CHANGES IS SUPRA SEEKING?**

18 **A.** BellSouth Alternative 2 and 4⁸¹ convert the loop to digital form in the outside plant, and
19 carry the call all the way back to the point of interface as a DS1⁸² level Digital signal. As a final

⁸¹ And Supra suspects alternatives 5 and 6.
⁸² Or higher.

1 output step, BellSouth then crossconnect the DS1 signal to an ancient D4 channel bank system

2 ⁸³which:

- 3 a) Further degrades the high speed modem capability of the line
- 4 b) Creates a requirement for connect and test activities and costs which can be
- 5 completely eliminated otherwise⁸⁴.
- 6 c) Ignores the more efficient and forward looking method of providing the DS1
- 7 level signal directly to the CLEC at a Connecting Facility Assignment
- 8 ("CFA") location, instead of taking it to the channel bank.
- 9 d) Is unnecessary and wasteful.

10 Supra does not want the added cost and complexity, coupled with the signal degradation

11 caused by bringing these "loops" to the MDF through a channel bank, when it can simply

12 connect at the point where the DS1 is connected to the channel bank, and enjoy a digital

13 facility interface instead. The most efficient method, the cheapest and least labor prone

14 approach is to present these loops at a Bellsouth CFA, to which the CLEC will have to order

15 transport facilities back to its switch using co-carrier crossconnect, unbundled transport, or a

16 CAP provider's transport. BellSouth offers no rational, defense or justification for its

17 unilateral decision to re-convert the loops back to two wire, and suffer all the

18 CONNECT&TEST handling charges instead of effecting a purely digital switch, without

19 human intervention via the OSS.

⁸³ A system which converts 2 wire (FXS/FXO) service to a channel in a DS1 circuit, and vice versa. This is accomplished by sampling and digitizing, albeit at a lower frequency than what is necessary to support high speed modem traffic.

⁸⁴ Ainsworth Sept. 21, 2004 depo. Tr., pg. 125-26

1 Bellsouth should not be allowed to degrade the signal and increase the cost in this manner
2 and Alternative 2, 4 (and 5 and 6 if applicable) must be offered with a DS1 POI to the CLEC
3 in lieu of (or in addition to) the 2 wire output of the channel bank. The non recurring cost
4 should and shall reflect this more efficient and forward looking approach, as previously
5 ordered by this Commission in PSC-01-1181-FOF-TP.

6
7 **Q. DOES IT AUTOMATICALLY FOLLOW THAT A CONVERSION OF UNE-P TO**
8 **UNE-L WITH THE UNE-P LOOP SERVED BY IDLC (OR INA) WILL**
9 **NECESSARY HAVE TO EXCEED THE NRC FOR A LOOP SERVED BY**
10 **COPPER OR UDLC?**

11 A. Not at all. In fact, that only comes to pass if the loop is completely reconstructed from
12 scratch; something we have already proven is an unnecessary violation of a Supreme Court order
13 against unnecessary disconnection of already connected elements. Yet it remains BellSouth's
14 predominant method of conversion today. If BellSouth is compelled to do Group 3 – INA,
15 Group 4 NGDLC, and Group 5 – Switch sidedoor conversions with the point of interface ("PI")
16 at a DS1 level, instead of degrading and unnecessarily raising the cost, the Group 3, 4, and 5 cost
17 studies show that the process is untouched by human hands, unencumbered by human labor rates
18 and worktimes and the entire conversion, up to the DS1 POI⁸⁵ will cost nothing more than the
19 OSS change charge of **10.2 cents**. (See Supra Exhibit # DAN-47 *Confidential* - Supra Group 3
20 Cost Study – NGDLC UNE-P to NGDLC Virtual Terminal UNE-L Cost Study FL-2w.xls.
21 Dated 10/08/2004, Supra Exhibit # DAN-48 *Confidential* - Supra Group 4 Cost Study – INA or

⁸⁵ At which point the CLEC will have to have purchased other facilities at existing rates.

1 other DCS served IDLC UNE-P to UNE-L Cost Study FL-2w.xls. (Similar to Group 3 Supra
2 Exhibit # DAN-47) Dated 10/08/2004 and Supra Exhibit # DAN-49 *Confidential* - Supra Group
3 5 Cost Study –IDLC UNE-P to Switch Side Dorr UNE-L Cost Study FL-2w.xls. (Similar to
4 Group 3 Supra Exhibit # DAN-47) Dated 10/08/2004)

5 **On the other hand**, if BellSouth is allowed to continue funneling such loops through
6 the D4 channel bank process it is quite likely that such loops will never be converted to UNE-L.
7 No carrier can simultaneously withstand the high NRC that would result on this increasing
8 segment of the loops, and keep the customer happy long enough to re-coup their investment.
9 Dial-up Internet users, provisioned via this method on Supra's switch, have left Supra by the
10 thousands.

11 That is the main reason Bellsouth chooses not to do this to their **own** retail customers.

12

13 **Q. SHOULD THE COMMISSION ESTABLISH A NEW RATE FOR THE UNE-P TO**
14 **UNE-L HOTCUT, FOR UNE-P LOOPS SERVED BY A) IDLC THAT IS IN A**
15 **CAPABLE, B) NGDLC, OR C) SWITCH SIDE-DOOR WITH A DS1 CLEC POI**
16 **INSTEAD OF THE D4 CHANNEL BANK POI AT THE MDF, WHAT RATE**
17 **WILL THAT BE?**

18 **A. The electronic OSS change charge of \$0.102, unless Bellsouth provides sufficient**
19 **evidence regarding its network limitations which might serve to raise this cost / rate.**

20

21

1 **Q. SHOULD THE COMMISSION ESTABLISH A NEW BLENDED RATE FOR THE**
 2 **UNE-P TO UNE-L HOTCUT, FOR ALL UNE-P LOOPS SERVED BY IDLC**
 3 **PRIOR TO CONVERSION WHAT RATE WILL THAT BE?**

4 **A. See Table 7 – Statewide weighted average of the various loop service**

					% deploy	% INA	Group	Rate	Statewide weighted
Copper					53.46%		1	\$7.54	\$4.03
IDLC - Not NGDLC Capable					19.70%	75%			
IDLC - Not NGDLC Capable - INA capable						14.8%	3	\$0.10	\$0.02
IDLC - Not NGDLC Capable, Not INA capable						4.9%	2	\$59.63	\$2.94
IDLC - NGDLC Capable					18.23%		4	\$0.10	\$0.02
UDLC - Not NGDLC					5.85%		1	\$7.54	\$0.44
UDLC - NGDLC Capable					2.75%		4	\$0.10	\$0.00
IDLC _ Switch Sde-door					0.00%		5	\$0.10	\$0.00
					100.00%				\$7.45

5 **Table 7 – Statewide weighted average of the various loop service methods**

6

7 **VI. The “COVAD” crossconnect is for construction of infrastructure and is being**
 8 **improperly applied by BellSouth in a manner which allows BellSouth double**
 9 **recovery of its cost(s).**

10

11 **Q. IN HER DIRECT TESTIMONY AT PAGE 8, LN. 21 MS. CALDWELL ASKS**
 12 **THE QUESTION “ARE THERE ANY RATES ASSOCIATED WITH THE HOT-**
 13 **CUT PROCESS CURRENTLY UNDER REVIEW BY THIS COMMISSION?”**
 14 **WHAT SHOULD THIS COMMISSION TAKE AWAY FROM HER**
 15 **TESTIMONY?**

16 **A. Absolutely nothing. While Supra does not dispute that collocation issues were addressed**
 17 **in a separate Docket, the implication that something from the collocation docket is relevant to the**

1 non-recurring cost of a UNE-L loop is simply a fabrication which BellSouth's only other
2 witness, Mr. Ainsworth does not even support.
3 In his deposition, Mr. Ainsworth clearly testified that all of the worktimes for all of the work
4 activities that are performed by the Central Office Forces dept in actually performing the
5 crossconnect are recovered by the UNE-L loop cross study. Bellsouths continued billing of the
6 \$8.22 charge for the H.1.9 cross-connect is double recovery of cost, undue enrichment to
7 BellSouth and is a practice which must be terminated by this Commission immediately.

8

9 **Q. IS THERE ANY RELEVANCE TO THE COVAD DOCKET?**

10 **A.** No. It is a bald attempt to justify a BellSouth billing error, the genesis of which I
11 describe above. This entire issue should be rejected by the Commission, and BellSouth should
12 be ordered to immediately stop billing this charge in connection with a UNE-L loop.

13

14

15

1 VII. Exhibits – Rebuttal Testimony.

2 VII.A. Issues 1 and 2 - Exhibits

3 **Supra Exhibit # DAN-36** *Confidential* - BellSouth's UNEP to UNEL Bulk Migration
4 Process Flow, PFUNEP2L.ppt dated 6/6/2002

5 **Supra Exhibit # DAN-37** *Confidential* - BellSouths "Outside Plant Engineering
6 Methods and Procedures for Provisioning Network Elements"
7 document, Issue R, dated May 7, 2004 provided in response to
8 Supra's Second request for Production of Documents.

9 **Supra Exhibit # DAN-38** *Confidential (?????) - Composite* – Deposition
10 testimony(ies) of Daonne Caldwell

11 **Supra Exhibit # DAN-39** *Confidential (?????)* - Partial Deposition Testimony of
12 Kenneth Ainsworth

13 VII.B. Issue 3 - Exhibits

14 **Supra Exhibit # DAN-40** Direct testimony of David A. Nilson in Docket 990649-TP,
15 filed August 1, 2000.

16 **Supra Exhibit # DAN-41** Rebuttal testimony of David A. Nilson in Docket 990649-TP,
17 filed June 9, 2000.

18 **Supra Exhibit # DAN-42** Bellsouth response to Supra interrogatory 20-24 regarding lines
19 in service served via various loops service methods.

20 **Supra Exhibit # DAN-43** Supra modified version of Bellsouth response to Supra
21 interrogatory 20-24 (Supra Exhibit # DAN-42) with subtotals
22 calculating statewide percentage of various loops service

1 technologies, and making adjustment for the fact that
2 BellSouths NGDLC counts were also included in IDLC/UDLC
3 counts.

4 **Supra Exhibit # DAN-44** Supra high level analysis, showing the statewide weighted cost
5 of the various Supra cost study groups, weighted by the actual
6 network deployment data provided by BellSouth. Based upon
7 Supra Exhibit # DAN-42, Supra Exhibit # DAN-43, Supra
8 Exhibit # DAN-45, Supra Exhibit # DAN-46, Supra Exhibit #
9 DAN-47, Supra Exhibit # DAN-48, Supra Exhibit # DAN-49)

10 **Supra Exhibit # DAN-45** *Confidential* - Supra Group 1 Cost Study - Copper UDLC
11 UNE-P to UNE-L FL-2w.xls. Revised version of **.Error!**
12 **Reference source not found.**, Supra's A.1.1 and A.1.2 cost
13 study for loops served by Copper UDLC, includes disconnect
14 and SL2 rates not previously defined by **.Error! Reference**
15 **source not found.**, which should now be considered obsolete.
16 Dated 10/08/2004

17 **VII.C. Issue 4 - Exhibits**

18 **Supra Exhibit # DAN-46** *Confidential* - Supra Group 2 Cost Study - IDLC served UNE-
19 P to Copper UDLC UNE-L Cost Study FL-2w.xls. Dated
20 10/08/2004

21 **Supra Exhibit # DAN-47** *Confidential* - Supra Group 3 Cost Study – NGDLC UNE-P to
22 NGDLC Virtual Terminal UNE-L Cost Study FL-2w.xls.

1 Dated 10/08/2004

2 **Supra Exhibit # DAN-48** *Confidential* - Supra Group 4 Cost Study – INA or other DCS
3 served IDLC UNE-P to UNE-L Cost Study FL-2w.xls.
4 (Similar to Group 3 Supra Exhibit # DAN-47) Dated
5 10/08/2004

6 **Supra Exhibit # DAN-49** *Confidential* - Supra Group 5 Cost Study –IDLC UNE-P to
7 Switch Side Dorr UNE-L Cost Study FL-2w.xls. (Similar to
8 Group 3 Supra Exhibit # DAN-47) Dated 10/08/2004

9 **Supra Exhibit # DAN-50** *Confidential* -10-08-2004 – BellSouth WORST CASE NRC
10 cost study – Created by Supra from the October 8, 2001 A.1.1
11 and A.1.2 NRC cost study for loops served by Copper / UDLC
12 – Based upon elimination of avoided worksteps from the
13 October 8, 2001 FL-2w.xls cost study as **agreed to by**
14 **BellSouth** at the September 24, 2004 deposition of K.
15 Ainsworth. **May yet contain excessive worktimes for times**
16 **not avoided, as discovery is not yet complete.** This
17 document demonstrates BellSouths agreement that the \$9.57 is
18 closer to \$11.22, or less, based upon the deposition testimonies
19 in Supra Exhibit # DAN-38 and Supra Exhibit # DAN-39.

20 **Supra Exhibit # DAN-51** 11/22/2000 - BellSouth UNE-P Loop Concentration document
21 for CLECs “Unbundled Loop Concentration CLEC
22 Information Package”, Version 1

1

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

3 **A. Yes it does.**

4

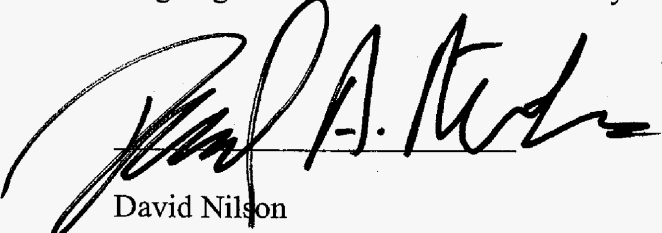
5

6 **Q. END OF TESTIMONY**

1 I, DAVID A. NILSON, am the Chief Technology Officer of Supra Telecommunications and
2 Information Systems Inc., and am authorized to make this Affidavit on behalf of said
3 corporation. The statements made in the foregoing comments are true of my own knowledge,
4 except as to those matters which are therein stated on information and belief, and as to those
5 matters I believe them to be true.

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I declare under penalty of perjury that the foregoing is true and correct this 8th day of
October, 2004.

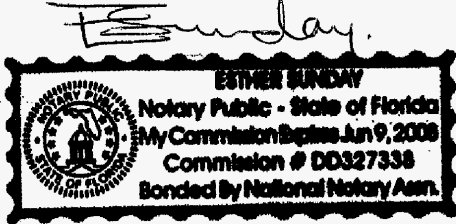


David Nilson

STATE OF FLORIDA)
) SS:
COUNTY OF MIAMI-DADE)

The execution of the foregoing instrument was acknowledged before me this 8th day of October,
2004, by David Nilson, who [X] is personally known to me or who [] produced
_____ as identification and who did take an oath.

My Commission Expires:



NOTARY PUBLIC
State of Florida at Large
Print Name: Esther Sunday

Docket No. 040301-TP
David A. Nilson
EXHIBIT DAN – 36

BellSouth 's UNE-p to UNE-L Bulk Migration
Updated 06/06/2002

CONFIDENTIAL

Docket No. 040301-TP
David A. Nilson
EXHIBIT DAN – 37

BellSouth's Outside Plant – May 7, 2004

CONFIDENTIAL

Docket No. 040301-TP
David A. Nilson
EXHIBIT DAN – 38

Deposition Testimony – Daonne Caldwell

CONFIDENTIAL

Docket No. 040301-TP
David A. Nilson
EXHIBIT DAN – 39

Deposition Testimony – Kenneth Ainsworth

CONFIDENTIAL

1 SUPRA TELECOMMUNICATIONS & INFORMATION SYSTEMS, INC.

2 DIRECT TESTIMONY OF DAVID A. NILSON

3 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

4 DOCKET NOS. 980649-TP

5 AUGUST 1, 2000

Docket No. 040301-TP

David A. Nilson

EXHIBIT DAN - 40

Direct Testimony of David A. Nilson -
Dkt 990649

7

8 Q. PLEASE STATE YOUR NAME AND ADDRESS

9

10 A. My name is David A. Nilson. My address is 2620 SW 27th Avenue, Miami, Florida
11 33133.

12

13 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPICITY?

14

15 A. I am the Chief Technology Officer of Supra Telecommunications and Information
16 Systems, Inc. ("Supra Telecom").

17

18 Q. PLEASE DESCRIBE YOUR BACKGROUND AND WORK EXPERIENCE.

19

20 A. I have been an electrical engineer for the past 26 years, with the last 22 years spent
21 in management level positions in engineering and quality, and regulatory
22 departments. In 1976, after spending two years working in the microwave industry
23 producing next generation switching equipment for end customers such as AT&T

1 long lines and ITT, I was part of a three-man design team that produced the
2 world's first microwave integrated circuit. This job involved extensive work with
3 various government agencies. At that time, our design was considered the "holy
4 grail" of the microwave industry and was placed in production for AT&T within
5 30 days of its creation. This job also involved communications equipment design
6 work with various government entities covered by United States Departments of
7 Defense security restrictions. I spent several years in quality control management,
8 monitoring and trouble-shooting manufacturing process deviations, and serving as
9 liaison and auditor to our regulatory dealings with the government. I spent 14
10 years in the aviation industry designing communications systems, both airborne
11 and land-based, for various airlines and airframe manufacturers worldwide. This
12 included custom designed hardware originally designed for the Pan American
13 Airlines call centers, and the HF long range communications system controllers
14 used on Air Force One and Two and other government aircraft. In this job I was
15 also responsible for validation design testing and FAA system conformance
16 testing. Since 1992 I have been performing network and system design consulting
17 for various industry and government agencies, including the Argonne National
18 Laboratories. I am the principal architect of Supra's ATM backbone network and
19 our central office design.

20

21

22

1 Q. HAVE YOU EVER PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

2

3 A. Yes, I testified before this Commission in numerous generic dockets and in various
4 disputes between Supra Telecom and BellSouth.

5

6

7 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

8

9 A. The purpose of my testimony is to address the issues identified in this proceeding,
10 including the following previously identified issues set forth on the list of issues: 1,
11 2(a), 2(b), 3(a), 3(b), 4(a), 4(b), 10, 11 and 12.

12

13 Q. WHAT FACTORS SHOULD THE COMMISSION CONSIDER IN
14 ESTABLISHING RATES AND CHARGES FOR UNES (INCLUDING
15 DEAVERAGED UNES AND UNE COMBINATIONS)?

16

17 A. Under the TELRIC model and the FCC's pricing rules found in 47 C.F.R. §§ 51.503 -
18 51.513, this Commission should only consider a forward-looking network design
19 based upon the most efficient technology currently available, with the cost of such
20 equipment and assets being spread out (or amortized) over the economic or true
21 useful life of the equipment.

1 Notwithstanding the Eighth Circuit's most recent ruling in Iowa Utilities Board, et al.
2 v. Federal Communications Commission, Case No. 96-3321 (8th Cir., July 18, 2000),
3 Supra Telecom believes that this Commission should continue pricing UNEs under
4 the FCC'S previous methodology. Nevertheless, even if this Commission were to
5 consider the Iowa Utilities Board case, the FCC's previous methodology would still
6 provide significant guidance on pricing. For example, any new model should still be
7 forward-looking, however under the Iowa Utilities Board case, current costs would be
8 relevant, but only for as long as current equipment is being depreciated. Once the
9 current equipment has been depreciated, the forward-looking model would require
10 the ILEC to invest in the most efficient equipment and design available. This
11 Commission is already deciding the issue of depreciation lives for various UNEs.
12 The ILECs should be required to provide the current time in service of each and
13 every piece of equipment comprising the UNEs to be priced. An average time in
14 service should then be compared to the depreciation life established by this
15 Commission for that UNE. To the extent the average time in service of the actual
16 equipment is less than the established useful life, current costs would only be
17 considered as a weighted-average of the remaining useful life. If it is discovered that
18 the average equipment life is longer than the Commission's established useful life for
19 the UNE, then the cost model should give no consideration to current costs (since by
20 definition, the equipment is fully depreciated on a forward-looking basis and thus
21 current costs would no longer be relevant).
22

1 In addition to the above, estimated costs should be based upon actual projected costs
2 using the above assumptions. Thus, there should be no non-recurring costs imposed
3 on situations where such a cost will never be incurred. For example, conversions of
4 service "as is" require nothing to be changed and therefore the provision of servicing
5 existing UNE loops and ports should incur no conversion costs. For recurring costs,
6 the Commission must follow the assumptions made in the TELRIC model. Finally,
7 consideration should be given to such real world considerations such as line-sharing;
8 particularly, Digitally Added Main Lines (DAML) which are becoming more
9 prevalent with time. DAMLs allow ILECs such as BellSouth to provide service to
10 multiple customers over the same loop. When this actually occurs with an ALEC's
11 customers, the ALEC should only be required to pay a pro-rata recurring cost for that
12 loop. Real world considerations also exist for matters such as line conditioning,
13 where the number of impediments on loops such as load coils and bridge-taps vary
14 from loop to loop. In order to verify these potential costs and to accurately assess in
15 advance the cost of providing service to any particular customer, it is important that
16 ALECs be given full access to all technical information about the ILEC's network;
17 including such databases as LFACS which provide detailed information about each
18 loop and circuit path. To date, ILECs such as BellSouth have flatly refused to
19 provide such information in order to prevent ALECs from knowing the actual cost
20 associated with line conditioning. Therefore, in order to ensure the fair
21 apportionment of costs, consideration must be given for real-world considerations.
22

1

2 Q. WHAT IS THE APPROPRIATE METHODOLOGY TO DEAVERAGE UNES
3 AND WHAT IS THE APPROPRIATE RATE STRUCTURE FOR DEAVERAGED
4 UNES?

5

6 A. The appropriate methodology for deaveraging UNEs is one that attempts to
7 accurately assess the true potential cost of the UNE utilizing the TELRIC model
8 assumptions as established previously by the FCC; and if necessary, as modified by
9 the Eighth Circuit as previously described. Thus for example, under the TELRIC
10 assumptions, there should be little or no difference in the cost of switching ports,
11 regardless of where those ports are installed. However, with respect to loops, the true
12 TELRIC cost of a loop depends primarily on its length. Therefore, loops should be
13 deaveraged based upon loop length as opposed to wire centers. In this regard, loop
14 lengths should be broken down into categories of shortest available loop length
15 between connection points. Supra Telecom suggests the following categories of loop
16 lengths: (a) 0 to 3,000 feet; (b) 3,001 to 6,000 feet; (c) 6,001 to 9,000 feet; (d) 9,001
17 to 12,000 feet; (e) 12,001 to 15,000 feet; (f) 15,001 to 18,000; (g) 18,001 to 21,000
18 feet; (h) 21,001 to 24,000 feet; and (i) greater than 24,000 feet. Pricing of loops
19 would be the same in each loop length category. Pricing would be accomplished by
20 taking the total loop costs and apportioning that cost into each category on a
21 weighted-average basis, using the median loop length of each category (and 25,500
22 for the last category) as the apportioning factor. Using the above suggested loop

1 length categories, subloops can be priced under this same methodology. Given the
2 fact that current switching technology does not require load coils for extended loop
3 lengths, all forward-looking loops should experience the same forward-looking costs
4 regardless of the service being provided.

5

6

7 Q. FOR WHICH OF THE FOLLOWING UNES SHOULD THE COMMISSION SET
8 DEAVERAGED RATES?

9

10 (1) LOOPS (ALL)

11

12 A. This Commission should set deaveraged rates for all loops, including subloops. All
13 loops should be deaveraged based upon categories of loop lengths. Since current
14 switching technology does not require load coils for extended loop lengths, all
15 forward-looking loops should experience the same forward-looking costs regardless
16 of the service being provided. Moreover, under the Eighth Circuit's recent ruling,
17 current costs should also not cause any price differentiation with respect to the service
18 being provided since any line conditioning costs would be recovered separately.

19

20 (2) LOCAL SWITCHING

21

1 A. This Commission need not set deaveraged rates for local switching since the cost of
2 this UNE should be the same regardless of where the UNE is provided.

3

4 (3) INTEROFFICE TRANSPORT (DEDICATED AND SHARED)

5

6 A. The pricing of Interoffice Transport should be deaveraged in such a way as to charge
7 for this use on a per "airline" mile basis (i.e. straight line distance of the transport
8 being provided) and time usage over the economic life of the transmission media.

9 This can be accomplished by determining the total cost of all inter-office transport
10 divided by the total distance of transport laid (on a per mile basis), then further
11 divided by the total economic life of the transmission media on a per second basis.

12 Shared transport should utilize the same pricing structure as dedicated transport (i.e.
13 distance traveled on a per second basis), except that this rate should further be
14 reduced by the percentage of usage with respect to the total capacity of the transport
15 media. Additionally, if there are any quality of service considerations (such as
16 transmission priority), the shared transport costs should be adjusted on a weighted-
17 average basis for the quality of service being provided.

18 In either case, the facilities termination portion of the inter-office transport should not
19 be deaveraged since the cost (if any) should be the same regardless of where the UNE
20 is provided.

21

22 (4) OTHER (INCLUDING COMBINATIONS)

1

2 A. Considerations and price reductions should be given for line sharing; particularly
3 current line sharing using the DAML technology previously described.

4

5

6 Q. WHAT ARE xDSL CAPABLE LOOPS?

7

8 A. xDSL capable loops are copper loops with no load coils, and in some instances no
9 bridge taps. The length of xDSL capable loops should not be arbitrarily set at any
10 distance as the current state of the art allows service provisioning throughout the
11 18,000 to 33,000 foot range, depending on equipment vendor. Alternately this
12 Commission could set different classes of xDSL capable loops based upon loop
13 length and modulation capability as done by SouthwesternBell.

14

15 Q. SHOULD A COST STUDY FOR xDSL-CAPABLE LOOPS MAKE
16 DISTINCTIONS BASED ON LOOP LENGTH AND/OR THE PARTICULAR
17 DSL TECHNOLOGY TO BE DEPLOYED?

18

19 A. Cost studies for xDSL capable loops should consider loop lengths as described
20 previously. There should be no difference in pricing of copper loops and xDSL
21 loops, except that where applicable, line conditioning costs should be amortized over
22 the remaining economic life of the loop and recovered on a recurring rate basis.

1

2 Q. WHICH SUBLOOP ELEMENTS, IF ANY, SHOULD BE UNBUNDLED IN THIS
3 PROCEEDING, AND HOW SHOULD PRICES BE SET?

4

5 A. All subloops and elements should be unbundled. Additionally, ports on digital loop
6 carrier should also be deaveraged; both on a dedicated use basis and on a shared use
7 basis.

8

9

10 Q. HOW SHOULD ACCESS TO SUCH SUBLOOP ELEMENTS BE PROVIDED,
11 AND HOW SHOULD PRICES BE SET?

12

13 A. For dedicated use, access should be given to the entire subloop. The unbundled price
14 for each subloop should be set based upon categories of loop lengths as previous
15 described in reference to deaveraging loop costs. For share use, subloop cost should
16 be further reduced by the proportion of channels available for use on the subloop.
17 For example, if a particular subloop serves ninety-six subscribers, the cost of that sub-
18 loop should be apportioned by ninety-six, with each carrier bearing their
19 proportionate share of customers served by the shared subloop. With respect to ports,
20 if dedicated, the ALEC should pay for the amortized cost of the port on a recurring
21 charge basis. However, if the port is shared, then each carrier should pay the pro-rata

1 cost of the amortized port based upon the percentage of their customers being served
2 by that port.

3

4

5 Q. WHAT IS THE APPROPRIATE RATE, IF ANY, FOR CUSTOMIZED
6 ROUTING?

7

8 A. The only charge for customized routing (above transport costs) should be the average
9 cost of labor to program the customized route.

10

11 Q. WHAT ARE THE APPROPRIATE ASSUMPTIONS AND RATES, IF ANY, FOR
12 LINE CONDITIONING, AND IN WHAT SITUATIONS SHOULD THE RATE
13 APPLY?

14

15 A. Line conditioning involves removing load coils and bridge taps in order to be able to
16 provide xDSL service. In the strictest sense, load coils and bridge taps would not be
17 placed on newly constructed forward-looking xDSL capable loops and therefore
18 under a forward-looking TELRIC model should not be a recoverable cost.

19 Nevertheless, if this Commission is considering line conditioning charges, then the
20 Commission should consider the following. When provisioning xDSL circuits, the
21 ILEC often has many proposed wire circuit routes which may be taken to reach any
22 particular customers. Databases such as LFACs provide information regarding the

1 available loops. It has been Supra Telecom's experience to date that ILECs (such as
2 BellSouth) refuse to provide LFACs data so that the ALEC will have no way of
3 knowing whether or not a particular customer can be provided xDSL service without
4 using a loop that needs to be conditioned. ILECs such as BellSouth will always seek
5 to impose a line conditioning charge, whether or not the line needs to be conditioned
6 and without regard to whether or not the customer can be served via an alternate route
7 which does not require line conditioning. Accordingly, regardless of how this cost is
8 recovered, ALECs should be allowed full access to databases such as LFACs which
9 are needed to determine the quality of the loop and whether or not in the first
10 instance, any line conditioning would be needed.

11 If a line conditioning charge is to be considered, the current state of switch
12 technology is such that load coils are no longer needed to provision basic POTs
13 service; regardless of the loop length. Therefore, once load coils are removed from a
14 circuit path, they will never have to be reinstalled. Thus the removal of load coils
15 should properly be considered to be a network upgrade which should be borne by all
16 potential users of the loop during the remaining useful life of the loop. Therefore, if
17 charged to ALECs, the cost of removing load coils should be recovered as a recurring
18 rate amortized over the remaining life of the loop being conditioned.

19 With respect to bridge taps, some xDSL equipment can tolerate bridge taps and other
20 equipment cannot. If ALECs are to be charged for removing bridge taps, ALECs
21 should have the right in the first instance to specify whether or not they want any of
22 the bridge taps removed from the loop. Moreover, since bridge taps were install in

1 the first instance for BellSouth's flexibility in provisioning service, these costs should
2 already be included in the cost of providing new service. **Thus even if this**
3 Commission were to consider line conditioning charges, ALECs seeking to provide
4 xDSL service should not be require to pay for the cost of removing any such bridge
5 taps. This process is already well established and supported by SouthWestern Bell.

6

7

8 Q. WITHOUT DECIDING THE SITUATIONS IN WHICH SUCH COMBINATIONS
9 ARE REQUIRED, WHAT ARE THE APPROPRIATE RECURRING AND NON-
10 RECURRING RATES FOR THE FOLLOWING UNE COMBINATIONS:

11

12 (A) "UNE PLATFORM" CONSISTING OF: LOOP (ALL), LOCAL (INCLUDING
13 PACKET, WHERE REQUIRED) SWITCHING (WITH SIGNALING), AND
14 DEDICATED AND SHARED TRANSPORT (THROUGH AND INCLUDING
15 LOCAL TERMINATION);

16

17 A. For an existing service, the cost of a "UNE Platform" should be the combined
18 individual cost of each UNE comprising the platform, and nothing more. For new
19 service, the only additional charge should be the same charge assessed on ALECs for
20 new service for resale accounts, and nothing more.

21

22

1 (B) "EXTENDED LINKS," CONSISTING OF: (1) LOOP, DSO/1
2 MULTIPLEXING, DS1 INTEROFFICE TRANSPORT; (2) DS1 LOOP, DS1
3 INTEROFFICE TRANSPORT; AND (3) DS1 LOOP, DS1/3 MULTIPLEXING,
4 DS3 INTEROFFICE TRANSPORT.

5

6 A. For an existing connections, the cost of "Extended Links" should be the combined
7 individual cost of each UNE comprising the extended link, and nothing more.

8

9

10

11 Q. DOES THIS CONCLUDE MY TESTIMONY?

12

13 A. Yes, this concludes my testimony.

1 SUPRA TELECOMMUNICATIONS & INFORMATION SYSTEMS, INC.

2 REBUTTAL TESTIMONY OF DAVID A. NILSON

3 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

4 DOCKET NOS. 980649-TP

Docket No. 040301-TP

David A. Nilson

EXHIBIT DAN – 41

*Rebuttal testimony of David A. Nilson - Dkt
990649*

5 JUNE 9, 2000

6
7
8 Q. PLEASE STATE YOUR NAME AND ADDRESS

9
10 A. My name is David A. Nilson. My address is 2620 SW 27th Avenue, Miami, Florida
11 33133.

12
13 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPICITY?

14
15 A. I am the Chief Technology Officer of Supra Telecommunications and Information
16 Systems, Inc. ("Supra").

17
18 Q. PLEASE DESCRIBE YOUR BACKGROUND AND WORK EXPERIENCE.

19
20 A. I have been an electrical engineer for the past 26 years, with the last 22 years spent
21 in management level positions in engineering and quality, and regulatory
22 departments. In 1976, after spending two years working in the microwave industry
23 producing next generation switching equipment for end customers such as AT&T

1 long lines and ITT, I was part of a three-man design team that produced the
2 world's first microwave integrated circuit. This job involved extensive work with
3 various government agencies. At that time, our design was considered the "holy
4 grail" of the microwave industry and was placed in production for AT&T within
5 30 days of its creation. This job also involved communications equipment design
6 work with various government entities covered by United States Departments of
7 Defense security restrictions. I spent several years in quality control management,
8 monitoring and trouble-shooting manufacturing process deviations, and serving as
9 liaison and auditor to our regulatory dealings with the government. I spent 14
10 years in the aviation industry designing communications systems, both airborne
11 and land-based, for various airlines and airframe manufacturers worldwide. This
12 included custom designed hardware originally designed for the Pan American
13 Airlines call centers, and the HF long range communications system controllers
14 used on Air Force One and Two and other government aircraft. In this job I was
15 also responsible for validation design testing and FAA system conformance
16 testing. Since 1992 I have been performing network and system design consulting
17 for various industry and government agencies, including the Argonne National
18 Laboratories. I am the principal architect of Supra's ATM backbone network and
19 our central office design.

20
21
22

1 Q. HAVE YOU EVER PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

2

3 A. Yes, I testified before this Commission in numerous generic dockets and in various
4 disputes between Supra Telecom and BellSouth.

5

6

7 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

8 A. The purpose of my testimony is to address the issues identified in this proceeding.

9 I have reviewed the testimonies of the ILECs regarding issues 5 (which signaling
10 networks and call-related databases should rates be set); 6 (when is it appropriate
11 to recover non-recurring costs through recurring rates); 9(b) (should the
12 Commission require ILECs to unbundle any other elements or combinations
13 thereof); and 13 (when should recurring and non-recurring rates take effect) and
14 will rebut the asserts made in general by the ILECs. I will also rebut the direct
15 testimony of BellSouth witnesses Alphonso Varner, and Sprint witness James W.
16 Sichter on issues 5, 6 and 9b.

17

18

19 **ISSUE 5: FOR WHICH SIGNALING NETWORKS AND CALL RELATED**
20 **DATABASES SHOULD RATES BE SET.**

21

1 Q. AS DEFINED BY BELLSOUTH WITNESSES VARNER, ARE THERE ANY
2 OTHER NETWORKS OR DATABASES FOR WHICH RATES SHOULD BE
3 SET?

4
5 A. Yes. Unbundled Local switching requires that the ALEC who leases a switching
6 port be given all features and functionality of the port. One such feature is the
7 ability of the port to produce stutter dialtone, or activate a light on the telephone
8 set of a subscriber in response to a signal from a voicemail system or provider to
9 let the telephone subscriber know there is a message waiting. Traditionally this
10 task has been done via the System Message Desk Interface (SMDI) and
11 enhancements to it such as Inter Switch Voice Messaging (ISVM) which allows
12 one switch to pass messaging requests across the network to other switches
13 without the use of a dedicated network.¹

14
15 While this is clearly a function of the switch port, and functionality of it comes with
16 the switch port, in Florida there is no unbundled access to this fundamentally
17 important signaling network / switch port functionality. Therefore an ALEC is not
18 in parity with the ILEC for the Local Switching UNE.

19

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

1 BellSouth does not provide unbundled access to this signaling network, but in their
2 FFC #1 Access Tariff lists SMDI and something called ISMDI. The description of
3 ISMDI is an SS7 / TCAP based network that through a convoluted conversion of
4 conversion between SMDI, ISDN and SS7 / TCAP messages provides a single
5 connection to a signaling connection that is supposed to be able to activate a
6 Message Waiting Indicator (MWI) on a Latawide basis. This is clearly not as cost
7 effective as the ISVM approach. The alternative an ALEC has would be to
8 establish an SMDI connection to each and every BellSouth switch in Florida, a
9 total of 206 individual connections at last count. This is not cost effective
10 compared to ISVM and presents a substantial barrier to entry.

11

12 Nowhere is there any mention of direct access to the ISVM signaling, or unbundled
13 access to any signaling required to activate MWI on a leased Local Switching port.
14 These omissions are creating an unusually high barrier to entry for an ALEC like
15 Supra Telecom who is expected by telephone subscribers to provide the same
16 services as the ILEC as seamlessly as the ILEC provides those services.

17

18 As shown in Figure 13-11 (of attachment DAN-1), and 13-13 there is no separate
19 signaling network required to transmit messages switch to switch. It is included in
20 the basic switch port functionality, according to meetings Supra Telecom has held
21 with Bell Labs personnel on this issue. Additionally the Bell Labs Engineers
22 confirmed that this ISVM has been adopted as an industry standard for many years

1 now. This industry standard is also supported by Nortel and Siemens, so that all
2 switches in the BellSouth's network are compliant. Figure 13-14 along with
3 section 13.4.1.2 shows that the required software is part of the base generic
4 software since, at least the 5E8 generic. Since the current software release from
5 Lucent is 5E14, and since Lucent does not support switches with software loads
6 beyond two prior revisions, it is obvious that the required software is already
7 loaded on BellSouth's switches.

8

9 ALEC access to the ISVM signaling "network" should be defined as a fundamental
10 component of Local Switching line and trunk ports and ALEC access to this
11 network required of and provided by all Florida ILECs as it is elsewhere in the
12 country. The various message signaling networks are necessary to an ALEC to
13 compete with the ILEC, and failure to have access to such signaling impairs Supra
14 Telecom's ability to acquire new customers who view such a limitation as the
15 mark of an inferior carrier.

16

17 Q. ARE THERE ANY OTHER ISSUES WITH WITNESS VARNER'S
18 TESTIMONY?

19

1 A. The Local Number Portability (LNP) Query Service.² All of the databases listed
2 are query databases. However the specific identification of this as a Query Service
3 in reference to LNP underscores the fact that there is no unbundled OSS access to
4 the system. There is no way for an ALEC to directly provision LNP translations,
5 they must be performed via LSR instead of the obvious, and speedy solution of
6 providing unbundled access to the LSMS system [the standard provisioning
7 hardware / software system used nationwide for entering LNP translations for
8 Nuestar (previously Lockheed Martin)].

9
10 LIDB, which is used for authorization of third party billed calls, collect, credit card,
11 etc. is the type system that contains ALEC specific data on a given line.
12 Unbundled OSS access to this system to deal with the minute to minute needs of
13 an ALEC to render or remove credit authorization to a customer speedily and
14 freely and without unnecessary infrastructure overhead.

15
16 Therefore it is essential to provide unbundled OSS access to ALECs in a manner that
17 the LIDB records for a given ALEC customer may be directly modified by the
18 ALEC.

19

² BellSouth witness Varner, page 32 line 25.

1 **ISSUE 6: UNDER WHAT CIRCUMSTANCES, IF ANY, IS IT APPROPRIATE**
2 **TO RECOVER NON-RECURRING COST THROUGH RECURRING**
3 **RATES?**

4
5 Q. IN DEFINING "NON-RECURRING COST", SHOULD SUBCATEGORIES BE
6 RECOGNIZED IN DEALING WITH THE ANSWER TO ISSUE 6.

7 A. Yes. Task related non-recurring costs that repeat, each time an ALEC or ILEC
8 places a service order are a legitimate non-recurring charge. For example, the non-
9 recurring cost to move a cross-connect, or change the carrier code from ILEC to
10 ALEC in the OSS is directly related to the service provisioned.

11

12 Within that category, non-recurring costs to convert a working circuit to another
13 carrier are different than placing a circuit in operation at a given address. The
14 current structure of just one non-recurring rate per UNE loop is allowing the ILEC
15 undue enrichment for activities that are not performed. For example, the non-
16 recurring cost to combine NID, Subloop distribution and Subloop feeder
17 components together into a full loop to the customer is a cost that is substantially
18 higher than the non-recurring cost to switch an existing, in-service loop from one
19 carrier to another. Yet with the exception of the limited scope of order PSC-98-

1 0810-FOF-TP³, most ALECs in Florida are paying charges for placing a loop in
2 service, for the first time, whenever they order a conversion of a working circuit.

3

4 The non-recurring costs of infrastructure, purchase, and construction is a cost to be
5 shared by the carriers using the facility, over the useful life of the facility. Beyond
6 this point the cost model needs to deal with the facility in a different fashion
7 depending upon whether it remains in service or not.

8

9 Task related non-recurring costs are specific to a given carriers order for a particular
10 service and should remain non-recurring costs. These non-recurring costs should
11 be specific and the use of Individual Case Basis (ICB) be limited in the extreme, if
12 allowed at all.

13

14

15 Q. DOES THE TESTIMONY OF BELLSOUTH WITNESS VARNER AND SPRINT
16 WITNESS SICHTER REPRESENT ALL THE ISSUES?

17

18 A. No, not at all. Sprint witness Sichter states that "To the extent that high non-
19 recurring charges are a significant barrier to competitive entry, it may be
20 appropriate to require at least a portion of those non-recurring charges through

³ Page 55-56

1 recurring rates. This is in recognition of the FCC's continued efforts to ensure that
2 such non-recurring rates could and might be used by an ILEC to prevent a new
3 competitive carrier from competing with the ILEC in a given area or on a specific
4 product. Unfortunately his final conclusion on this issue ignores this statement in
5 favor of financial protection for the ILEC.

6

7 BellSouth witness Varner then goes on to make statement that "In a competitive
8 environment, a providers ability to predict how long an ALEC will remain on the
9 providers network is limited"⁴. Sprint witness Sichtler states "... the incumbent
10 ILEC is financially exposed if the ALEC discontinues service before the non-
11 recurring costs are fully recovered."⁵ Whether it is the high cost burden of current
12 non-recurring charges that causes an ALEC to discontinue leased services, or other
13 reasons, both Sprint and BellSouth indicate that users of facilities will change over
14 the life of the facility.

15

16 In spite of their recognition that there must not be barriers to entry in the competitive
17 market, and that the users of facilities will change over time, both ILEC witnesses
18 go on to ask the commission for financial protection from an ALEC who cancels
19 service early!

20

⁴ BellSouth witness Varner page 33, line 13.

1 This limited view of reality is trying to deal with non recurring costs related to the first
2 user, rather than the life of the facility. It ignores the fact that over the useful life
3 of the facility, the ILEC itself may well be a user of the facility. It also ignores the
4 fact that due to universal service, a large portion, if not all of the listed UNEs
5 would have to be constructed anyway. Therefore when an ALEC is not leasing a
6 specific UNE, the ILEC may still be generating revenue from it, either by leasing
7 or from Universal Service funds.

8

9 The non-recurring infrastructure charges should be apportioned between the ILEC and
10 all ALECs based upon who has “ownership” of the facility in a given month.
11 These charges should be assessed throughout the amortized life of the equipment.
12 Any attempt to charge non-recurring infrastructure costs to the first user of a
13 facility at a higher rate than subsequent users of the facility violates creates an
14 unnecessarily high barrier to entry.

15

16

17 Q. CAN YOU PROPOSE A TEST TO DETERMINE WHETHER A COST SHOULD
18 BE INCLUDED IN THE RECURRING CHARGE?

19

⁵ Sprint witness Sichtler page 26, line 3.

1 A. Well defined, repetitive costs related to service provisioning should remain non-
2 recurring costs. However the cost of placing a loop in service should be recognized
3 as substantially different from converting an existing, in-service loop from one
4 carrier to another. The non-recurring rates set by this commission should reflect
5 these very different costs. This is true whether the new carrier is provisioning
6 service via UNE combination⁶ or directly from their own facilities based
7 equipment.

8
9 This test addresses witness Varner and Sichters concern that an ALEC might cancel
10 service earlier than expected. The ALEC is billed direct costs of provisioning
11 service as a non-recurring rate, and construction costs are assessed to all users over
12 the life of the facility.

13
14 Another test for whether a non recurring cost should be separate from the recurring
15 charge are ICB charges. Typically all ICB costs are actually infrastructure
16 construction – they vary depending on physical circumstances and cannot be
17 modeled specifically. ICB charges should be included in recurring rates where
18 they get picked up by the cost model and apportioned to all users.

19

⁶ As provided for by this commission in PSC-98-0810-FOF-TP, conclusion on pages 55-56.

1 **ISSUE 9(b): SUBJECT TO THE STANDARDS OF THE FCC'S THIRD**
2 **REPORT AND ORDER, SHOULD THE COMMISSION REQUIRE ILEC'S**
3 **TO UNBUNDLE ANY ELEMENTS OR COMBINATIONS OF ELEMENTS.**
4 **IF SO, WHAT ARE THEY AND HOW SHOULD THEY BE PRICED?**

5
6 Q. ARE THERE ANY OTHER ELEMENTS NOT LISTED IN ISSUE 9(A) THAT
7 NEED TO BE UNBUNDLED?

8
9 A. Yes. One missing element is unbundled DSLAM access. In addition to providing
10 high speed Internet access via ADSL, there are an increasing list of other
11 Telephony related services provided by xDSL circuits, controlled by Central
12 Office located DSLAMS.

13
14 First of all, in order to serve any customer in the state with xDSL derived services, one
15 MUST have access to a DSLAM in every central office. Second, With the
16 exception of IDSL (an ISDN BRI equivalent) all other DSL flavors must have
17 direct copper connection between the DSLAM and the customer premises.
18 According to reported figures 60% of BellSouth customers are fed with some
19 amount of fibre optic cable between the central office and the customer. To
20 Service these customers an ALEC must now collocate in every Remote Terminal
21 in the state, an outstanding number of collocations for facilities that quite honestly
22 were never designed to have the capacity to support collocation.

1

2 Yet DSL variants are extremely and increasing used by all telephone companies to
3 deploy voice services. Supra Telecom has numerous T1 circuits running into our
4 corporate headquarters. Not one of those T1's is provisioned over a standard 4
5 wire DS1 circuit. Every one is provisioned over an HDSL (2 wire POTS or DSL
6 loop) or MHDSL(2x2wire POTS or DSL loops) rather than a conditioned,
7 repeater equipped DS1 loop.

8

9 The voice over DSL standards have come a long way in the past year, and all over the
10 country, high density voice circuits are increasingly being provisioned over 2 wire
11 circuits instead of DS1 circuits due to lack of facilities, speed of provisioning, or
12 for the reduced cost of this approach.

13

14 Packet switched products such as Frame Relay are also delivered over DSL. All of
15 Supra Telecom's Frame Relay circuits connection us to the various ILEC data
16 centers around the country were provisioned by BellSouth over HDSL circuits. So
17 as the commission addresses the unbundling of packet switching, it must deal with
18 the delivery of said service to the end user. Such local loop delivery is
19 increasingly being provided by the ILECs DSLAMS or equivalent equipment.

20

21 The ILEC is the one carrier who has deployed DSLAMS ubiquitously throughout its
22 network in Central Offices AND Remote Terminals. This piece of equipment and

1 its attendant transport, has become an important device in provisioning voice
2 services and as such should be offered in unbundled access. The ILEC must be
3 compelled to provide unbundled access to this switch with pricing based on
4 standards already established by this commission for Unbundled Network
5 Elements.

6
7 Q. ARE THERE ANY OTHER?

8
9 A. Yes. With the creation of Dark Fibre UNE's the question of Wave Division
10 Multiplexing (WDM) UNEs should be considered. WDM is a technique of using
11 multiple chromatically different lasers to provide 48 (or more) channels of capacity
12 over a circuit that would support one circuit using standard Fibre optic equipment.
13 Not that the practice is any less reliable, but cost studies for dark fibre and lit fibre
14 may have 48 times the revenue bearing capability that has been envisioned in the
15 cost model, and the technological advance that allows this extra capacity should be
16 factored into the cost models. As such it becomes a legitimate consideration as a
17 separate UNE.

18
19 Additionally, loops within the distance limitations of xDSL technology should be
20 set aside as a UNE, even if the loop only has voice-grade capabilities. The reason
21 for establishing such a category would be to comply with the TELRIC model
22 requirements that the best and most efficient technology be used when determining

1 costs. Since it appears that xDSL capable loops will be less expensive than the
2 standard voice grade loop, all loops within the xDSL distance capability (i.e.
3 18,000 feet to some vendors and ILECs such as BellSouth, greater lengths to
4 others) should be install as the less expensive xDSL loop, rather than the more
5 expensive standard voice-grade loop. Pricing of these xDSL length loops, for
6 which only voice-grade quality can be guaranteed, should be the same as the xDSL
7 loops minus any cost of ensuring that the xDSL loop meets the higher standard.

8

9

10

11 **ISSUE 13: WHEN SHOULD THE RECURRING AND NON-RECURRING**
12 **RATES AND CHARGES TAKE EFFECT?**

13

14 Q. WHEN SHOULD THE RECURRING AND NON-RECURRING RATES AND
15 CHARGES TAKE EFFECT?

16

17 A. Immediately after the Commission has made a final determination of the rates set
18 by this docket.

19

20 Q. DOES THIS CONCLUDE MY TESTIMONY?

21

22 A. Yes, this concludes my testimony.

Docket No. 040301-TP
David A. Nilson
EXHIBIT DAN - 42
BellSouth's Response to Supra's
Interrogatory 20 -24

BellSouth Telecommunications, Inc.
Florida Public Service Commission
Docket No. 040301-TP
Supra's 2nd Set of Interrogatories
August 26, 2004
Item No. 20-24
ATTACHMENT

Attachment
Response to Items 20-24

	1 (24)	2 (24)	3 (24)	4 (24)	5 (20)	6 (20)&(22)	7 (20)	8 (20)	9 (23)	10 (23)	11 (23)	12 (23)	13 (21)	14 (21)&(22)	15 (21)	16 (21)	17 (21)	18 (21)	19 (21)	20 (21)	21 (22)	
Wirecenter	Copper Tot Wkg	Copper UNE-L	Copper UNE-P	Copper Other*	DLC Integrated Tot Wkg	DLC Integrated UNE-L	DLC Integrated UNE-P	DLC Integrated Other*	DLC Universal Tot Wkg	DLC Universal UNE-L	DLC Universal UNE-P	DLC Universal Other*	NGDLC Integrated Tot Wkg	NGDLC Integrated UNE-L	NGDLC Integrated UNE-P	NGDLC Integrated Other*	NGDLC Universal Tot Wkg	NGDLC Universal UNE-L	NGDLC Universal UNE-P	NGDLC Universal Other*	DLC/NGDLC SideDoor UNE-L Tot	
archfma	1771	0	52	1719	893	0	19	874	316	1	3	312	211	0	1	210	2	0	0	0	2	0
bcrfibi	12012	1077	1050	9885	12591	2	1212	11377	6016	451	567	4998	6829	0	520	6309	627	127	36	464	2	0
bcrfima	36102	2351	3789	29962	27624	0	2838	24786	10432	1680	1070	7682	10071	0	787	9284	1221	467	50	704	0	0
bcrfisa	27752	861	3644	23247	33187	24	4394	28769	1992	165	187	1640	9540	0	981	8559	798	138	74	586	24	0
bgpifma	2648	0	188	2460	1928	0	50	1878	253	0	6	247	895	0	32	863	244	0	6	238	0	0
bkvifif	8987	0	778	8209	10638	0	703	9935	4944	0	392	4552	924	0	121	803	46	0	9	37	0	0
blwifma	1393	0	92	1301	630	0	34	596	660	0	23	637	0	0	0	0	0	0	0	0	0	0
blgifma	8088	5	1992	6091	2357	0	620	1737	319	0	60	259	52	0	7	45	353	0	29	324	0	0
bnrifma	2812	0	235	2577	1262	0	32	1230	5003	0	127	4876	1447	0	59	1388	1302	0	68	1234	0	0
brsnfma	1650	0	75	1575	1779	0	38	1741	775	0	28	747	0	0	0	0	0	0	0	0	0	0
bybhfma	25592	910	3166	21516	39355	0	3518	35837	6276	590	601	5085	30304	0	2766	27538	12457	339	1055	11053	0	0
ccbhfaf	387	0	15	372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ccbhfma	18339	342	1392	16605	1115	0	185	930	1024	136	124	764	2535	0	337	2198	869	43	59	767	0	0
cdkyfma	981	0	29	952	234	0	4	230	308	0	3	305	0	0	0	0	0	0	0	0	0	0
cfdfma	2583	2	250	2331	2435	0	86	2349	647	0	38	609	0	0	0	0	0	0	0	0	0	0
chpifja	4271	3	203	4065	1211	0	19	1192	408	0	10	398	566	0	8	558	440	0	3	437	0	0
cntmfle	3858	4	339	3515	2603	0	129	2474	2054	0	102	1952	835	0	41	794	184	0	11	173	0	0
cocofma	20060	642	2093	17325	30891	12	2115	28764	4632	204	334	4094	10830	0	498	10332	722	99	30	593	12	0
cocofme	11300	371	961	9968	11654	0	916	10738	3317	164	242	2911	1296	0	50	1246	84	1	9	74	0	0
cscyfiba	2204	3	141	2060	2070	0	55	2015	531	0	16	515	268	0	4	264	0	0	0	0	0	0
dbryfidl	7140	0	958	6182	5549	0	814	4735	418	0	51	367	2243	0	310	1933	114	0	15	99	0	0
dbryfma	3880	0	420	3460	2449	0	276	2173	98	0	8	90	2093	0	243	1850	79	0	11	68	0	0
deidfma	18574	292	2448	15834	7116	21	792	6303	1135	36	167	932	1171	0	124	1047	226	0	22	204	21	0
dibhfkp	27643	542	2886	24215	24159	0	1674	22485	2000	156	265	1579	21222	0	1278	19944	5967	256	427	5284	0	0
dibhfma	29085	1261	3923	23901	9225	418	1112	7695	30214	223	707	29284	0	0	0	0	0	0	0	0	418	0
dlspffma	1991	0	150	1841	610	0	38	572	0	0	0	0	0	0	0	0	0	0	0	0	0	0
dlnfhwf	3271	0	247	3024	5366	0	54	5312	5103	0	86	5017	440	0	1	439	24	0	0	24	0	0
drbhfma	33426	1223	3849	28354	17197	85	2069	15043	3119	448	348	2323	10825	0	1203	9622	1556	153	160	1243	85	0
dybhffn	3003	17	347	2639	583	0	27	556	20	0	1	19	349	0	48	301	0	0	0	0	0	0
dybhfma	26302	721	4063	21518	17710	0	1949	15761	3936	205	416	3315	2733	0	344	2389	244	40	31	173	0	0
dybhfiob	19900	382	2450	17068	12288	0	1114	11174	1665	42	194	1429	6026	0	370	5656	540	22	55	463	0	0
dybhfls	6363	5	568	5790	611	0	45	566	134	0	14	120	896	0	71	825	4	0	0	4	0	0
dybhfpo	24736	295	2667	21774	18830	1	1634	17195	6111	106	629	5376	7015	0	484	6531	1307	75	120	1112	1	0
eglfifbg	17124	249	1847	15028	32046	134	2576	29336	574	29	59	486	11956	2	774	11180	371	76	11	284	136	0
eglfifh	16714	12	1706	14996	2470	0	201	2269	226	0	26	200	1452	0	108	1344	58	0	3	55	0	0
eornfma	1295	0	32	1263	2295	0	79	2216	1032	0	35	997	1204	0	15	1189	252	0	10	242	0	0
flbhfma	3225	0	420	2805	364	0	28	336	1149	0	86	1063	423	0	55	368	637	0	60	577	0	0
flmscma	27292	14	3769	23509	28338	0	2582	25756	102	0	19	83	17775	0	1249	16526	210	1	20	189	0	0
frbhffp	9523	2	1109	8412	7879	0	608	7271	1290	0	129	1161	2563	0	219	2344	373	0	21	352	0	0
frgfma	308	0	8	300	437	0	10	427	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ftdfiap	700	0	72	628	1950	0	135	1815	51	2	0	49	0	0	0	0	0	0	0	0	0	0
ftdficr	42250	2044	5346	34860	4599	1	318	4280	1124	47	105	972	3668	0	143	3525	191	49	7	135	1	0
ftdficy	35426	1855	4262	29309	4600	6	543	4051	1381	220	83	1078	453	0	1	452	664	28	25	611	6	0
ftdfija	28811	1267	4315	23229	44956	124	4407	40425	3159	422	355	2382	29214	10	2392	26812	646	209	24	413	134	0

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Attachment
Response to Items 20-24

	(24)	(24)	(24)	(24)	(20)	(20)/(22)	(20)	(20)	(20)	(23)	(23)	(23)	(23)	(21)	(21)/(22)	(21)	(21)	(21)	(21)	(21)	(21)	(22)
Wirecenter	Copper Tot Wkg	Copper UNE-L	Copper UNE-P	Copper Other*	DLC Integrated Tot Wkg	DLC Integrated UNE-L	DLC Integrated UNE-P	DLC Integrated Other*	DLC Integrated Other*	DLC Universal Tot Wkg	DLC Universal UNE-L	DLC Universal UNE-P	DLC Universal Other*	NGDLC Integrated Tot Wkg	NGDLC Integrated UNE-L	NGDLC Integrated UNE-P	NGDLC Integrated Other*	NGDLC Universal Tot Wkg	NGDLC Universal UNE-L	NGDLC Universal UNE-P	NGDLC Universal Other*	DLC/NGDLC SideDoor UNE-L Tot
ftdffmr	59874	4494	6895	48485	14206	39	1259	12908	161	19	6	136	3487	30	199	3258	210	89	25	96	69	
ftdffloa	48475	1974	10766	35735	8083	10	1303	6770	2140	358	262	1520	1183	0	173	1010	1122	26	38	1058	10	
ftdffpl	37494	2547	6238	28709	14410	51	2131	12228	7195	1094	788	5313	1566	1	274	1291	233	90	32	111	52	
ftdffsg	0	0	0	0	5250	0	806	4444	824	0	67	757	118	0	0	118	61	0	0	61	0	
ftdffsu	34768	665	6096	28007	10548	554	1925	8069	3195	62	444	2689	0	0	0	0	0	0	0	0	554	
ftdffwn	4425	63	749	3613	29508	73	3734	25701	1795	118	236	1441	22572	51	2723	19798	554	225	31	298	124	
ftprfma	35633	474	3914	31245	25456	0	1108	24348	6572	154	367	6051	7006	0	175	6831	445	32	23	390	0	
gcspfcnc	5017	6	299	4712	2450	0	120	2330	2539	0	118	2421	124	0	6	118	380	0	11	369	0	
gcvfima	2709	0	89	2620	497	0	16	481	440	0	17	423	93	0	1	92	221	0	1	220	0	
genvfima	1392	0	46	1346	937	0	42	895	652	0	19	633	0	0	0	0	64	0	0	64	0	
glbrfima	5133	18	538	4577	8452	0	832	7620	4340	13	423	3904	2362	0	180	2202	95	2	8	85	0	
gsvfima	45511	156	3825	41530	48553	41	3468	45044	9904	21	721	9162	18069	0	829	17240	791	8	9	774	41	
gsvfimw	7667	20	930	6717	6780	0	526	6254	1844	2	174	1668	3461	0	248	3213	87	1	3	83	0	
havnfima	2386	0	78	2308	1563	0	27	1536	829	0	28	801	382	0	1	381	302	0	2	300	0	
hbsdfima	8990	11	944	8035	1647	0	136	1511	615	1	37	577	742	0	48	694	77	0	0	77	0	
hinvfima	1900	0	130	1770	8161	0	381	7780	1144	0	60	1084	8290	0	335	7955	384	0	24	360	0	
hlwdfima	28033	519	4673	22841	9	0	1	8	3078	118	459	2501	2700	8	319	2373	0	0	0	0	8	
hlwdfima	40866	1731	7508	31627	8407	32	1173	7202	1348	318	124	906	11941	0	194	11747	87	36	0	51	32	
hlwdfipe	21012	1277	4766	14969	98759	916	15133	82710	875	192	94	589	69489	27	10114	59348	2530	1190	161	1179	943	
hlwdfwh	65364	3811	14062	47491	17952	102	2259	15591	2856	182	256	2418	8451	12	1209	7230	371	186	16	169	114	
hmstflea	1243	0	84	1159	482	0	8	474	66	0	0	66	934	0	61	873	71	0	10	61	0	
hmstfthm	22976	74	3789	19113	12987	0	1360	11627	2218	1	230	1987	5244	0	496	4748	528	2	55	471	0	
hmstfima	8685	0	1038	7647	1702	0	130	1572	244	0	25	219	1286	0	143	1143	1809	0	146	1663	0	
htsfima	13407	1	991	12415	3923	0	333	3590	1382	3	151	1228	769	0	59	710	77	0	3	74	0	
hwthfima	1366	0	52	1314	1440	0	43	1397	908	0	16	892	180	0	2	178	0	0	0	0	0	
ismfima	2282	1	203	2078	1784	0	119	1665	469	0	39	430	664	0	32	632	22	0	0	22	0	
jayvfima	1309	0	33	1276	1780	0	48	1732	130	0	7	123	0	0	0	0	0	0	0	0	0	
jbhflab	1443	2	117	1324	6772	0	592	6180	999	0	84	915	2588	0	243	2345	60	4	1	55	0	
jbhflima	18095	515	1557	16023	11770	264	1169	10337	2678	19	133	2526	0	0	0	0	0	0	0	0	264	
jbhflisp	3738	10	403	3325	5420	0	398	5022	403	0	25	378	3971	0	322	3649	240	0	27	213	0	
jcvtfar	20087	835	2225	17027	4190	22	438	3730	819	44	38	737	2422	9	227	2186	150	59	2	89	31	
jcvtfbw	11488	563	1003	9922	19929	53	1194	18682	2751	299	147	2305	17626	21	1050	16555	1195	228	57	910	74	
jcvtfcl	36892	1452	2864	32576	4460	45	433	3982	4133	353	242	3538	1478	7	212	1259	448	85	36	327	52	
jcvtffc	11901	276	1306	10319	3050	31	267	2752	338	20	26	292	1567	0	176	1391	253	2	48	203	31	
jcvtfia	624	4	95	525	1474	0	160	1314	14	0	6	8	0	0	0	0	0	0	0	0	0	
jcvtijt	1795	121	86	1588	2796	7	178	2611	427	16	18	393	1296	0	50	1246	181	23	0	158	7	
jcvtlff	23172	319	1978	20875	8250	77	537	7636	1317	11	122	1184	0	0	0	0	0	0	0	0	77	
jcvtlfn	16154	435	2026	13693	7888	61	746	7081	1615	187	112	1316	4561	0	454	4107	3405	97	217	3091	61	
jcvtflow	7727	168	560	6999	8451	0	501	7950	3335	74	217	3044	2203	0	80	2123	324	8	25	291	0	
jcvtlrv	25739	915	2602	22222	1767	53	95	1619	5504	75	147	5282	0	0	0	0	0	0	0	0	53	
jcvtlsj	25174	1397	2253	21524	5045	9	420	4616	7079	546	561	5972	798	0	70	728	118	45	11	62	9	
jcvtlsm	15393	1011	1319	13063	2866	8	285	2573	1606	216	78	1312	393	0	37	356	160	25	4	131	8	
jcvtlwc	17895	386	2425	15084	18886	12	1871	17003	2102	66	205	1831	7774	0	574	7200	707	59	59	589	12	
jpfrfima	23505	995	2060	20450	19081	0	1498	17583	3324	447	229	2648	1064	0	33	1031	15185	194	426	14565	0	
kyngfima	3395	0	197	3198	2555	0	119	2436	924	0	39	885	0	0	0	0	0	0	0	0	0	

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Response to Items 20-24

	(24)	(24)	(24)	(24)	(20)	(20)	(20)	(20)	(23)	(23)	(23)	(23)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(22)
	Copper				DLC	DLC	DLC	DLC	DLC	DLC	DLC	DLC	NGDLC	NGDLC	NGDLC	NGDLC	NGDLC	NGDLC	NGDLC	NGDLC	NGDLC
Wirecenter	Tot Wkg	UNE-L	UNE-P	Other*	Integrated Tot Wkg	Integrated UNE-L	Integrated UNE-P	Other*	Universal Tot Wkg	Universal UNE-L	Universal UNE-P	Other*	Integrated Tot Wkg	Integrated UNE-L	Integrated UNE-P	Other*	Universal Tot Wkg	Universal UNE-L	Universal UNE-P	Other*	SideDoor
kyrlfbs	4788	0	582	4206	2719	0	294	2425	925	0	112	813	214	0	28	186	5	0	0	0	5
kyrlfma	3593	0	479	3114	5054	0	424	4630	813	0	54	759	43	0	1	42	0	0	0	0	0
kywslma	16800	0	1889	14911	8365	0	639	7726	1370	0	72	1298	3811	0	298	3513	692	0	27	665	0
lkcyflma	10466	17	764	9685	13622	0	529	13093	5626	0	250	5376	394	0	27	367	104	0	3	101	0
lkmrflhe	440	0	0	440	12131	0	805	11326	1156	108	126	922	9888	0	542	9346	683	204	0	479	0
lyhnflho	6214	4	341	5869	2286	0	87	2199	199	0	9	190	2456	0	67	2389	502	0	13	489	0
mcnpflma	881	1	29	851	428	0	8	420	140	0	1	139	0	0	0	0	0	0	0	0	0
mdbqflpm	3022	7	185	2830	5633	0	168	5465	6079	0	200	5879	1466	0	17	1449	2504	0	64	2440	0
miamflae	58897	2562	6645	49690	4594	3	596	3995	7	6	0	1	4978	0	430	4548	552	167	20	365	3
miamflal	29461	429	5030	24002	1867	64	174	1629	0	0	0	0	3339	12	259	3068	0	0	0	0	76
miamflap	5546	51	555	4940	1918	0	82	1836	288	1	3	284	1954	0	77	1877	563	0	0	563	0
miamflba	30705	507	3581	26617	2005	34	226	1745	3736	16	142	3578	0	0	0	0	0	0	0	0	34
miamflbc	15433	656	2138	12639	221	0	39	182	434	0	24	410	69	18	4	47	0	0	0	0	18
miamflbr	36687	1086	4350	31251	5168	75	566	4527	852	13	40	799	11063	0	961	10102	694	144	84	466	75
miamflca	48965	1059	6967	40939	61152	7	5175	55970	3986	261	417	3308	43798	0	2865	40933	570	136	42	392	7
miamflcb	3848	5	335	3508	728	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
miamflfi	31580	621	4571	26388	728	0	80	648	25	12	0	13	369	0	48	321	35	7	6	22	0
miamflfr	34718	1862	3090	29766	2688	0	319	2369	2101	157	153	1791	4732	0	359	4373	655	107	22	526	0
miamflhl	51299	2492	8449	40358	66173	150	8240	57783	10140	1111	1494	7535	45690	0	4808	40882	1357	524	68	765	150
miamflhc	34485	495	4888	29102	3652	0	414	3238	893	54	119	720	1946	0	265	1681	270	21	10	239	0
miamflke	9090	20	838	8232	288	2	19	267	2064	0	224	1840	31	3	1	27	0	0	0	0	5
miamflme	18727	27	2496	16204	1187	0	285	902	630	0	50	580	0	0	0	0	0	0	0	0	0
miamflmn	27158	673	6428	20057	622	0	108	514	68	0	11	57	815	0	233	582	36	2	6	28	0
miamflns	27748	448	5407	21893	1729	0	316	1413	1919	0	511	1408	190	3	18	169	0	0	0	0	3
miamflol	24484	560	6101	17823	2728	0	646	2082	2831	70	436	2325	719	0	122	597	4347	44	460	3843	0
miamflpb	35049	1133	5298	28618	1465	0	99	1366	5080	350	612	4118	1436	0	99	1337	6562	50	251	6261	0
miamflpl	26483	3141	2922	20420	46037	418	3827	41792	1795	235	162	1398	26273	6	1804	24463	1836	935	52	849	424
miamflrr	39382	2003	3326	34053	7975	7	430	7538	2351	182	96	2073	3325	0	213	3112	435	121	23	291	7
miamflsh	34230	656	7990	25584	980	4	266	710	3153	6	149	2998	0	0	0	0	0	0	0	0	4
miamflso	41916	1080	5476	35360	6769	0	823	5946	2247	140	161	1946	4669	0	373	4296	8492	256	240	7996	0
miamflwd	25237	337	4193	20707	33533	17	4228	29288	1704	84	254	1366	20342	1	2024	18317	229	46	18	165	18
miamflwm	33877	921	4248	28708	6318	0	830	5488	4982	191	334	4457	2628	0	162	2466	13761	154	160	13447	0
miccflbb	5072	0	345	4727	1482	0	115	1367	138	0	14	124	1	0	0	1	0	0	0	0	0
mlbrflma	32231	1233	3307	27691	53862	41	4923	48898	9353	494	827	8032	15754	0	1075	14679	755	139	41	575	41
mltrflra	8407	10	358	8039	7775	0	190	7585	5344	3	146	5195	8790	0	180	8610	435	0	2	433	0
mndrflav	1955	28	149	1778	3592	5	378	3209	506	49	31	426	2252	1	152	2099	317	32	3	282	6
mndrfllo	13287	293	1053	11941	18083	46	1260	16777	2870	400	164	2306	4701	5	245	4451	963	230	20	713	51
mndrflw	2806	3	175	2628	3024	0	133	2891	340	0	11	329	5754	0	284	5470	1897	0	20	1877	0
mnsnflma	214	0	2	212	348	0	4	344	141	0	3	138	0	0	0	0	0	0	0	0	0
mnrflve	6094	0	686	5408	3987	0	384	3603	1035	0	85	950	1335	0	75	1260	131	0	3	128	0
mxvflma	788	0	51	737	629	0	32	597	197	0	11	186	0	0	0	0	0	0	0	0	0
ndadflac	33514	879	8132	24503	7852	11	804	7037	2072	114	249	1709	4584	0	383	4201	3780	121	324	3335	11
ndadflbr	22286	405	5168	16713	12376	0	1975	10401	5023	60	780	4183	18817	0	3720	15097	1414	52	295	1067	0
ndadflgg	28857	2947	5450	20460	2979	9	560	2410	478	96	82	300	1716	0	309	1407	127	82	6	39	9
ndadflol	29683	755	4690	24238	4754	0	509	4245	7384	160	809	6415	5453	0	488	4965	5531	62	231	5238	0

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Attachment
Response to Items 20-24

Wirecenter	(24)	(24)	(24)	(24)	(20)	(20)&(22)	(20)	(20)	(23)	(23)	(23)	(23)	(21)	(21)&(22)	(21)	(21)	(21)	(21)	(21)	(22)	
	Copper Tot Wkg	Copper UNE-L	Copper UNE-P	Copper Other*	Integrated Tot Wkg	Integrated UNE-L	Integrated UNE-P	Integrated Other*	Universal Tot Wkg	Universal UNE-L	Universal UNE-P	Universal Other*	NGDLC Tot Wkg	NGDLC UNE-L	NGDLC UNE-P	NGDLC Other*	NGDLC Tot Wkg	NGDLC UNE-L	NGDLC UNE-P	NGDLC Other*	DLC/NGDLC UNE-L Tot
nkrflma	2811	0	111	2700	17	0	2	15	759	0	32	727	0	0	0	0	0	0	0	0	0
nsbflma	15822	43	3404	12375	8794	0	1712	7082	8738	1	1809	6928	1770	0	192	1578	1271	2	189	1080	0
rwbyflma	1346	0	92	1254	1779	0	30	1749	1615	0	21	1594	0	0	0	0	0	0	0	0	0
okhflma	1483	0	118	1365	921	0	47	874	0	0	0	0	0	0	0	0	0	0	0	0	0
ofwfln	1262	0	44	1218	2505	0	36	2469	1036	0	16	1020	0	0	0	0	0	0	0	0	0
ordflap	23820	763	3121	19936	60098	190	5777	54131	12112	829	1237	10046	34124	2	2636	31486	1729	322	133	1274	192
ordfci	23879	1194	2240	20445	4288	16	371	3901	1953	138	144	1671	1758	19	125	1614	90	29	4	57	35
ordflma	39507	3132	3310	33065	17637	1044	1812	14781	4350	203	396	3751	0	0	0	0	0	0	0	0	1044
ordflpc	21598	1498	2295	17805	47144	317	5423	41404	11318	1453	1051	8814	20892	18	2195	18679	1445	345	100	1000	335
ordflph	29253	1562	4600	23091	57940	421	7344	50175	5594	851	482	4261	15904	13	1757	14134	1348	271	77	1000	434
ordflsa	12471	977	1355	10139	13092	83	1466	11543	2549	325	236	1988	5488	56	825	4607	1284	285	75	924	139
orpflma	11413	372	1247	9794	15213	0	902	14311	1922	164	194	1564	9768	0	488	9280	3658	135	245	3278	0
orpflrw	9359	40	1209	8110	1637	0	158	1479	1043	4	106	933	7465	1	335	7129	0	0	0	0	1
ovidfca	5252	252	552	4448	22402	3	1977	20422	2850	172	257	2421	8877	0	654	8223	630	119	34	477	3
paceflpv	5477	13	455	5009	4264	0	210	4054	2225	1	107	2117	1030	0	71	959	59	0	0	59	0
pahkflma	3235	3	841	2391	338	0	98	240	45	0	3	42	0	0	0	0	0	0	0	0	0
pcbhfint	5185	9	339	4837	14628	0	1004	13624	2937	6	201	2730	3251	0	132	3119	525	2	25	498	0
picsflma	7236	0	640	6596	12502	0	807	11695	934	0	61	873	4698	0	244	4454	792	0	47	745	0
ptkflma	9454	6	917	8531	9716	0	468	9248	2506	0	130	2376	952	0	51	901	86	0	1	85	0
pmbhfics	30662	1709	5456	23497	38642	108	5204	33330	2105	152	239	1714	14850	0	1779	13071	1172	231	129	812	108
pmbhfife	46989	1641	6829	38519	17561	9	1867	15685	4317	496	456	3365	7719	0	433	7286	943	113	130	700	9
pmbhfifma	45433	1724	7155	36554	27797	100	4070	23627	6471	1024	750	4697	4093	0	395	3698	162	43	3	116	100
pmbhfita	24338	775	5430	18133	12647	11	2139	10497	938	60	121	757	3654	0	490	3164	288	32	17	239	11
pmpkflma	1834	0	56	1778	1356	0	29	1327	307	0	10	297	0	0	0	0	0	0	0	0	0
pncyfca	4777	1	319	4457	839	0	42	797	719	0	44	675	239	0	12	227	44	0	2	42	0
pncyflma	20732	44	1997	18691	11782	0	1169	10613	4748	23	475	4250	2918	0	292	2626	461	16	23	422	0
pnsclfb	27042	995	3033	23014	11395	0	1013	10382	6602	95	834	5673	9920	0	741	9179	765	67	47	651	0
pnsclffp	17904	272	2045	15587	26475	0	2647	23828	8584	256	1020	7308	8389	0	704	7685	760	130	48	582	0
pnsclfhc	4422	4	457	3961	3765	0	329	3436	1567	0	149	1418	963	0	79	884	372	1	23	348	0
pnsclffb	3358	1	321	3036	1079	0	106	973	464	0	34	430	2874	0	260	2614	351	0	35	316	0
pnsclftwa	20040	154	2632	17254	15606	0	1415	14191	2585	18	271	2296	8099	0	505	7594	108	14	4	90	0
pnvdfima	7205	21	520	6664	11191	3	793	10395	1636	12	111	1513	3317	0	216	3101	157	4	1	152	3
prmfima	48010	3157	5880	38973	64021	2	4321	59698	9949	1385	1096	7468	56515	0	3309	53206	3687	1844	93	1750	2
prsnffid	1616	0	97	1519	1184	0	42	1142	407	0	26	381	0	0	0	0	0	0	0	0	0
ptslflma	14247	7	1284	12956	34919	0	2301	32618	9142	17	869	8256	15398	0	643	14755	543	2	47	494	0
ptslfso	12069	41	1393	10635	4271	0	543	3728	387	1	40	346	1607	0	186	1421	139	1	12	126	0
sbstffe	1838	0	113	1725	41	0	1	40	182	0	2	180	0	0	0	0	0	0	0	0	0
sbstflma	7804	18	488	7298	7833	0	346	7487	1889	1	113	1775	3105	0	197	2908	134	0	3	131	0
sgkyflma	504	0	13	491	2893	0	97	2796	544	0	17	527	689	0	17	672	36	0	0	36	0
snrflma	12889	508	2087	10294	34569	32	4413	30124	8598	553	1196	6849	17398	3	1822	15573	948	208	49	691	35
stagflbs	6886	5	527	6354	3131	0	219	2912	672	0	39	633	3019	0	257	2762	389	0	25	364	0
stagflma	10227	409	1003	8815	19531	128	1388	18015	1202	169	134	899	8405	2	458	7945	539	155	21	363	130
stagflsh	5132	6	510	4616	3894	2	441	3451	604	0	69	535	1191	0	98	1093	88	2	7	79	2
stagflwg	3688	0	134	3554	4034	0	157	3877	84	0	0	84	8	0	0	8	0	0	0	0	0
strflma	27684	815	3121	23748	36178	2	2887	33289	9589	346	914	8329	15120	2	811	14307	1059	158	38	863	4

Note: "Other" in each category represents Retail/Resale, which cannot be disaggregated. Number in parentheses indicates Data Request Item number.

Attachment
Response to Items 20-24

	(24)	(24)	(24)	(24)	(20)	(20)&(22)	(20)	(20)	(23)	(23)	(23)	(23)	(21)	(21)&(22)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(22)	
	Copper	Copper	Copper	Copper	DLC	DLC	DLC	DLC	DLC	DLC	DLC	DLC	NGDLC	NGDLC	NGDLC	NGDLC	NGDLC	NGDLC	NGDLC	NGDLC	NGDLC	NGDLC	
Wirecenter	Tot Wkg	UNE-L	UNE-P	Other*	Integrated	Integrated	Integrated	Integrated	Universal	Universal	Universal	Universal	Integrated	Integrated	Integrated	Integrated	Universal	Universal	Universal	Universal	Universal	Universal	SideDoor
					Tot Wkg	UNE-L	UNE-P	Other*	Tot Wkg	UNE-L	UNE-P	Other*	Tot Wkg	UNE-L	UNE-P	Other*	Tot Wkg	UNE-L	UNE-P	Other*	UNE-L	UNE-L Tot	
syhsfcc	687	0	7	680	907	0	16	891	376	0	9	367	0	0	0	0	0	0	0	0	0	0	0
trenfima	2179	0	155	2024	2333	0	66	2267	917	0	32	885	0	0	0	0	1830	193	20	14	159	0	
ltvifima	18078	435	1584	16059	13472	0	1040	12432	4400	231	297	3872	1967	0	137	0	0	0	0	0	0	0	0
vermfima	958	0	51	907	1145	0	25	1120	240	0	4	236	0	0	0	0	0	0	0	0	19	579	
vrhfbibe	8541	6	869	7666	4094	0	220	3874	1713	0	119	1594	1518	0	107	1411	598	0	0	0	43	649	
vrhbfima	25775	580	2883	22312	24371	1	2026	22344	8192	200	763	7229	9271	0	534	8737	742	50	0	0	18	18	
welkfima	1664	0	56	1608	970	0	17	953	131	0	1	130	93	0	1	92	18	0	0	0	0	18	
wpbhflan	33101	1900	3015	28186	6203	8	468	5727	1994	100	103	1791	3232	0	364	2868	3244	261	100	142	1318	43	
wpbhfiga	50863	2460	6655	41748	47898	43	5198	42657	5600	856	562	4182	29306	0	2683	26623	2141	681	70	1400	14		
wpbhfigr	24867	1571	1989	21307	37120	14	2094	35012	4596	362	269	3965	26617	0	1281	25336	2038	568	30	804	166		
wpbhfhgh	38733	2038	5010	31685	31956	166	3433	28357	3731	771	245	2715	13197	0	1046	12151	1139	305	30	0	2332	0	
wpbhfhle	40853	1640	5421	33792	3670	0	326	3344	1017	171	114	732	261	0	11	250	2436	6	98	0	0	953	
wpbhfrb	28663	1084	3790	23789	14929	953	1775	12201	14131	123	536	13472	0	0	0	0	2057	336	92	1629	79		
wpbhfrp	11988	326	1272	10390	56212	79	4614	51519	3276	341	267	2668	31739	0	2270	29469	0	0	0	0	0	0	
wvspfih	2027	0	199	1828	9316	0	646	8670	3755	0	386	3369	269	0	41	228	0	0	0	0	0	0	
wvspfih	11004	2	1509	9493	19571	0	2657	16914	3083	0	505	2578	413	0	50	363	40	0	4	36	0	0	
ynwifima	717	0	14	703	395	0	6	389	2097	0	51	2046	112	0	0	112	510	0	11	499	0	0	
ynwifima	1465	0	82	1383	947	0	9	938	537	0	15	938	537	0	0	0	0	0	0	0	0	0	0
yulefima	2170	0	120	2050	2156	0	93	2063	1073	0	31	1042	0	0	0	0	0	0	0	0	0	0	0

Note: "Other" in each category represents Reail/Resale, which cannot be disaggregated. Number in parentheses indicates Data Request Item number.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22								
	(24)	(24)	(24)	(24)	(20)	(20)&(22))	(20)	(20)	(23)	(23)	(23)	(23)	(21)	(21)&(22))	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(22)							
	Copper Tot Wkg	Copper UNE-L	Copper UNE-P	Copper Other*	IDLC Integrated TotWkg	IDLC Integrate UNE-L	IDLC Integrate UNE-P	IDLC Other*	UDLC Universal Tot Wkg	UDLC Universal UNE-L	UDLC Universal UNE-P	UDLC Other*	NGDLC Integrated TotWkg	NGDLC Integrate UNE-L	NGDLC Integrate UNE-P	NGDLC Other*	UDLC Universal TotWkg	UDLC Universal UNE-L	UDLC Universal UNE-P	UDLC Universal Other*	UDLC Universal Other*	UDLC/NGDLC SideDoor UNE-L Tot								
5 WireCenter																														
85 syhsflcc	687	0	7	680	907	0	16	891	376	0	9	367	0	0	0	0	0	0	0	0	0	0	0							
86 trenflma	2179	0	155	2024	2333	0	66	2267	917	0	32	885	0	0	0	0	0	0	0	0	0	0	0							
87 trvflma	18078	435	1584	16059	13472	0	1040	12432	4400	231	297	3872	1967	0	137	1830	193	20	14	159	0	0	0							
88 vernflma	958	0	51	907	1145	0	25	1120	240	0	4	236	0	0	0	0	0	0	0	0	0	0	0							
89 vrbhflbe	8541	6	869	7666	4094	0	220	3874	1713	0	119	1594	1518	0	107	1411	598	0	19	579	0	0	0							
90 vrbhflma	25775	580	2883	22312	24371	1	2026	22344	8192	200	763	7229	9271	0	534	8737	742	50	43	649	1	0	0							
91 welkflma	1664	0	56	1608	970	0	17	953	131	0	1	130	93	0	1	92	18	0	0	0	18	0	0							
92 wpbhflan	33101	1900	3015	28186	6203	8	468	5727	1994	100	103	1791	3232	0	364	2868	3244	261	100	2883	8	0	0							
93 wpbhflga	50863	2460	6655	41748	47898	43	5198	42657	5600	856	562	4182	29306	0	2683	26623	2141	681	142	1318	43	0	0							
94 wpbhflgr	24867	1571	1989	21307	37120	14	2094	35012	4596	362	269	3965	26617	0	1281	25336	2038	568	70	1400	14	0	0							
95 wpbhflhh	38733	2038	5010	31685	31956	166	3433	28357	3731	771	245	2715	13197	0	1046	12151	1139	305	30	804	166	0	0							
96 wpbhflie	40853	1640	5421	33792	3670	0	326	3344	1017	171	114	732	261	0	11	250	2436	6	98	2332	0	953	0							
97 wpbhflir	28663	1084	3790	23789	14929	953	1775	12201	14131	123	536	13472	0	0	0	0	0	0	0	0	0	0	0	0						
98 wpbhflrp	11988	326	1272	10390	56212	79	4614	51519	3276	341	267	2668	31739	0	2270	29469	2057	336	92	1629	79	0	0							
99 wwsplfhi	2027	0	199	1828	9316	0	646	8670	3755	0	386	3369	269	0	41	228	0	0	0	0	0	0	0							
200 wwsplfsh	11004	2	1509	9493	19571	0	2657	16914	3083	0	505	2578	413	0	50	363	40	0	4	36	0	0	0							
201 yntnflma	717	0	14	703	395	0	6	389	2097	0	51	2046	112	0	0	112	510	0	11	499	0	0	0							
202 yntwflma	1465	0	82	1383	947	0	9	938	537	0	15	522	0	0	0	0	0	0	0	0	0	0	0							
203 yuleflma	2170	0	120	2050	2156	0	93	2063	1073	0	31	1043	0	0	0	0	0	0	0	0	0	0	0							
204 SubTotal (with dups)	3,250,835	107,617	425,786	2,717,432	2,306,452	7,916	223,735	2,074,801	523,191	26,639	44,562	451,990	1,108,435	343	91,923	1,016,169	167,211	15,233	8,796	143,182	8,259	7,364,383								
205 SubTotal Wkg	3,250,835				2,306,452				523,191				1,108,435				167,211					6,080,478								
206 Total Wkg	3,250,835				2,306,452				523,191				1,108,435				167,211					6,080,478								
207																														
208 % of IDLC	N/A				51.94%	(NGDLC Adjusted out)							48.06%	(NGDLC of IDLC)					100.00%											
209 % of NGDLC	N/A												68.04%	(NGDLC Adjusted out)							N/A	31.96%	(NGDLC of UDLC)					100.00%		
Percent of all - No subcat IDLC/NGDLC																							100.00%							
210	53.46%				37.93%	(All)							8.60%	N/A					100.00%											
Percent of all (adjusted for dup count)																							100.00%							
211	53.46%				19.70%	(IDLC Not NGDLC all)							5.85%	(UDLC Not NGDLC all)					18.23%	(NGDLC of all)					2.75%	(NGDLC - UDLC of all)				
212																														

Docket No. 040301-TP
 David A. Nilson
EXHIBIT DAN – 44
*Supra's high level Analysis – statewide
 weighted cost*

		% INA	Group	Rate	Statewide weighted
Copper	53.46%		1	\$11.23	\$6.00
IDLC - Not NGDLC Capable	19.70%	75%	N/A		
IDLC - Not NGDLC Capable - INA capable		14.8%		\$0.10	\$0.02
IDLC - Not NGDLC Capable, Not INA capable		4.9%		\$60.76	\$2.99
IDLC - NGDLC Capable	18.23%			\$0.10	\$0.02
UDLC - Not NGDLC	5.85%			\$11.23	\$0.66
UDLC - NGDLC Capable	2.75%			\$0.10	\$0.00
	100.00%				\$9.69

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David A. Nilson
EXHIBIT DAN – 45

*Supra's Group 1 Cost Study – Copper UDLC UNE-P to
UNE-L FL-2w.xls*

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Docket No. 040301-TP
David A. Nilson
EXHIBIT DAN – 46

*Supra's Group 2 Cost Study – IDLC served UNE-P to
Copper UDLC UNE-L FL-2w.xls*

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Docket No. 040301-TP
David A. Nilson
EXHIBIT DAN – 47

*Supra's Group 3 Cost Study – NGDLC UNE-P to
NGDLC Virtual Terminal UNE-L FL-2w.xls*

CONFIDENTIAL

Docket No. 040301-TP
David A. Nilson
EXHIBIT DAN – 48

*Supra's Group 4 Cost Study – INA or other DCS served
IDLC UNE-P to UNE-L FL-2w.xls*

CONFIDENTIAL

Docket No. 040301-TP
David A. Nilson
EXHIBIT DAN – 49

*Supra's Group 4 Cost Study –IDLC UNE-P to Switch
Side Dorr UNE-L FL-2w.xls*

CONFIDENTIAL

Docket No. 040301-TP
David A. Nilson
EXHIBIT DAN – 50

*10/08/2004 – BellSouth WORST CASE NRC Cost Study –
Created by Supra from the 10/08/2001 A.1.1 and A.1.2
NRC cost study of loops served by Copper/UDLC*

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BellSouth Unbundled Loop Concentration

Docket No. 040301-TP
David A. Nilson
EXHIBIT DAN - 54
10/08/2004 - BellSouth WORST CASE NRC Cost
Study - Created by Supra from the 10/08/2001
A.1.1 and A.1.2 NRC cost study of loops served by
Conner/IDLC.

**Unbundled Loop Concentration
CLEC Information Package**

(Version 1)

BellSouth Unbundled Loop Concentration**Table of Contents**

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BellSouth Unbundled Loop Concentration

Introduction & Scope

This Product Information Package is intended to provide to CLECs a product description and general ordering information specific to the UNE described herein. Detailed ordering guidelines are provided in documents located on the BellSouth Interconnection Web site.

The information contained in this document is subject to change. BellSouth will provide notification of changes to the document through the CLEC Notification Process.

Please contact your BellSouth Account Manager, if you have any questions about the information contained herein.

BellSouth Unbundled Loop Concentration

Service Description

Unbundled Loop Concentration (ULC) is an expandable unit that allows multiple unbundled loops to be concentrated onto DS1 level circuits within the BellSouth serving wire center (SWC) where the loop terminates onto the Main Distribution Frame (MDF).

ULC can be provided with either a TR008 or a TR303 interface.

Service Capabilities

ULC will allow a CLEC to concentrate multiple unbundled loops at a BellSouth central office onto multiple DS1s for the purpose of transporting unbundled loops (at a concentrated level) from a BellSouth central office back to the CLEC's collocation space, and ultimately to the CLEC's switch.

The unbundled loops will terminate at the MDF and then will be connected to the concentrator through the use of Loop Interface element. The ULC will then concentrate the loops onto two, three, four, or five DS1 interfaces (per system), depending on the total number of loops and the desired concentration and protection levels. At this point, the concentrator would deliver the DS1 interfaces to the Digital Cross-Connection (DSX) at that central office. From the DSX, a CLEC would be able to cross-connect the DS1s to its collocation space.

BST will not concentrate loops from multiple wire centers onto DS1 digital interoffice transport facilities.

BellSouth Unbundled Loop Concentration

Technical Requirements

The ULC Concentration Functionality (ULC-CF) is the heart of the ULC system. It is the unit that performs the concentration capability. The ULC is offered as 96-channel systems employing either the TR008 or TR303 standard and will come in four versions:

- ULC-TR008/System A allows loop concentration up to 96 UVL/UDLs on to multiple DS1s.
- ULC-TR008/System B allows loop concentration up to an additional 96 UVL/UDLs.
- ULC-TR303/System A allows loop concentration up to 96 circuits on to multiple DS1s.
- ULC-TR303/System B allow loop concentration up to an additional 96 UVL/UDLs.

While there are up to 96 channels available on a ULC system, some loop types will require two channels. Depending on the type of circuits the CLEC orders, the system may serve less than 96 circuits. See the table below for the requirements by circuit type.

CKT TYPE	Channels Required
2W VOICE LOOP INTERFACE (POTS CARD)	1 CHANNEL
2W VOICE LOOP INTERFACE (DID SPOTS CARD)	1 CHANNEL
2W ISDN LOOP INTERFACE (BRITE CARD)	2 CHANNELS
2W UDC LOOP INTERFACE (BRITE CARD)	2 CHANNELS
4W VOICE LOOP INTERFACE (SPECIALS CARD)	2 CHANNELS
4W DATA LOOP INTERFACE (SPECIALS CARD)	2 CHANNELS

ULC consists of a digital loop carrier (DLC) system located in BellSouth's central office. Lucent Series 5 will be used as the DLC equipment. The DLC is connected to the CLEC via two, three, four or five DS1 facilities. The DS1 facilities will be routed to the CLEC collocation space within the BellSouth central office that serves the end user

BellSouth Unbundled Loop Concentration

Technical Requirements (continued)

TR0908 Standards

- Minimum of 2 DS1s with a 2 to 1 concentration per system; or can be configured with 4 DS1s for 96 channels per system.
- Optional protect DS1 channel can be ordered per 96-channel group.
- May be optioned as AMI/SF or B8ZS/SF.
- Systems are designated as System A and System B.
- System A is the first 96-channel system in a dual channel bank; System B is the second 96 channel system in the same dual channel bank.
- ULC configured with a System A and System B can provide up to 192 channels.
- **Must have a System A prior to ordering a System B.**
- System A and System B may be optioned differently.

TR303 Standards

- Minimum of 2 DS1s is required and can grow by increments of one DS1 to a maximum of 4 per system.
- Optional protect DS1 channel can be ordered per 96-channel group.
- Optioned as B8ZS/ESF.
- **Systems are designated as System A and System B.**
- **System A is the first 96-channel system in a dual channel bank; System B is the second 96 channel system in the same dual channel bank.**
- ULC configured with a System A and System B can provide up to 192 channels.
- **Must have a System A prior to ordering a System B.**
- System A and System B may be optioned differently.

BellSouth Unbundled Loop Concentration

Technical Requirements (continued)

Interfaces

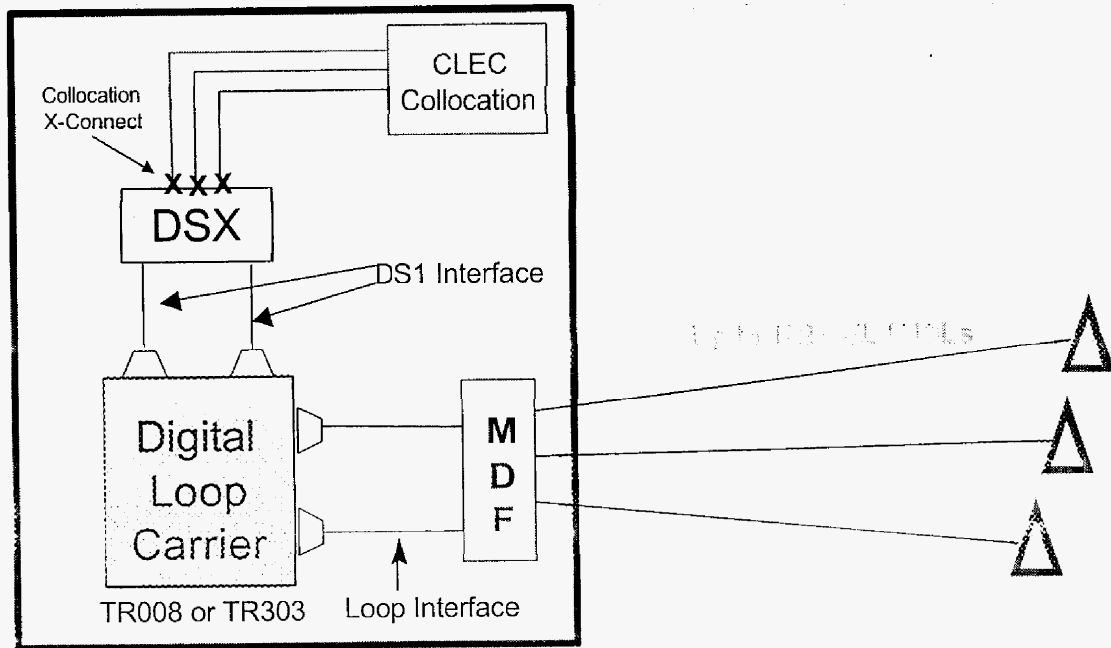
ULC Loop Interface (ULC-LI) is the interface that provides the connection between the MDF and the concentration unit, as well as, the line card in the concentrator. One of these is needed for each loop that is attached to the ULC-CF unit. The LI is offered in the following configurations:

- **DS1 Interface** – provides a DS1 interface card in the loop concentration unit. When connected to a DS1 level cross-connect, this element provides the DS1 level bandwidth from the ULC-CF to the CLEC's collocation space
- **2 Wire Voice Loop Interface (POTS card)** – is a 2 wire loop interface for designed Unbundled Voice Loops (UVLs) with loop start or ground start signaling.
- **2 Wire Voice Loop Interface (SPOTS DID card)** - is a 2 wire loop interface for designed UVLs with reverse battery signaling.
- **2 Wire ISDN Loop Interface (BRITE card)** – is a 2 wire loop interface for Unbundled Digital Loops (UDLs) capable of providing ISDN service and Universal Digital Channel (UDC).
- **4 Wire Voice Loop Interface (SPECIALS card)** – is a 4-wire loop interface for UVLs capable of providing FX and other special services.
- **4 Wire Data Loop Interface** -- is a 4-wire loop interface for UDLs capable of providing DS0 digital loops.
- **Test Channel** -- is a loop interface that consists of two 2-wire circuits that allow the CLEC to perform MLT testing through the ULC.

Once these loop interface connections are made, the CLEC would be responsible for transporting the DS1 level circuits from their collocation space to their switch (or other equipment) needed to provide the desired telecommunications services offered by the CLEC.

BellSouth Unbundled Loop Concentration

Network Configuration



BellSouth Unbundled Loop Concentration

Ordering & Provisioning Process

ULC System Establishment

A Service Inquiry (SI) is required to establish the ULC system. However, a CLEC may submit a SI to inquire if ULC is available in the requested BellSouth serving wire center (SWC).

ULC Inquiry Only

- The CLEC will send the SI marked "**Inquiry**" to the BellSouth Complex Resale Services Group (CRSG) or Account Team Representative.
- Upon receipt of the SI, the CRSG/Account Team will forward to the appropriate BellSouth department where a determination will be made regarding ULC availability in the requested BellSouth SWC.
- Once the "Inquiry Only" SI is returned to the CRSG/Account Team, it will be forwarded to the CLEC with the availability information.

ULC Firm Order

- The CLEC will send the SI (Service Inquiry) marked **Firm Order** and the Local Service Request (LSR) to the CRSG/Account Team.
- Upon receipt of the SI and LSR, the CRSG/Account Team will forward the SI to the appropriate BellSouth department where a determination will be made regarding ULC availability in the requested BellSouth SWC.
- If the ULC is available in the requested SWC, the CRSG/Account Team will notify the CLEC of the due date (DD) of when ULC can be provided.
- CRSG/Account Team will also forward the completed **Firm Order** SI and LSR to the Local Carrier Service Center (LCSC) to begin the service ordering process.
- Upon receipt of the **Firm Order** SI and LSR, the LCSC will validate the SI and LSR to ensure that all needed information is provided to process the service orders.
 - ◀ **If the *Firm Order* SI and LSR are complete and accurate, then the LCSC Service Rep will process the service orders. The service order due date (DD) will be the due date on the *Firm Order* SI.**
 - ◀ **An *Firm Order* Confirmation (FOC) will then be issued to the CLEC and will contain the following:**
 - System Common Language Circuit Identification (CLFID) for each DSI**
 - Service Order Number**
 - Due Date**
 - ◀ If there is missing information on the **Firm Order** SI, then the SI and LSR are put into clarification and sent back to the CRSG/Account Team for the needed information. If the LSR is not **CLEAN** and **ACCURATE**, then the LSR goes into clarification to the CLEC.

BellSouth Unbundled Loop Concentration

Ordering & Provisioning Process (continued)

Loop Interface and the Loop

- Once the ULC system(s) is established, the CLEC may begin ordering the Loop Interfaces (LI) and appropriate unbundled loops that will be on the ULC system(s).
- A LSR must be submitted to the LCSC to order the LIs and associated unbundled loops.
- Upon receipt of an accurate LSR, the LCSC will issue the service order(s). The following information will be returned to the CLEC on a FOC:
 - Loop Circuit ID
 - Service Order Number
 - Due Date
- Intervals will be set according to the target intervals established for unbundled loops in the **BellSouth Products & Services Interval Guide**.

BellSouth Unbundled Loop Concentration

Service Order Requirements

Local Service Request (LSR) form

The CLEC will complete a Local Service Request (LSR) form according to the **BellSouth Ordering Guide for CLECs** or the **BellSouth Business Rules for Local Ordering**.

ULC System Establishment - LSR Requirements

The following information that is unique to ULC System Establishment is also required on the LSR:

LSR Field	Information Required	
PON	Must match the ULC Firm Order SI PON	
NC	Definition	NC
	TR008 Non-concentrated (96 loops to 4 DS1s) AMI/SF	HCKA
	TR008 Non-concentrated (96 loops to 4 DS1s) B8ZS/SF	HCKB
	TR008 Concentrated 96 loops to 2 DS1s AMI/SF	HCKD
	TR008 Concentrated 96 loops to 2 DS1s B8ZS/SF	HCKE
	TR303 Concentrated or non-concentrated B8ZS/ESF	HCLA
NCI	Service	NCI
	ULC – Collocation w/T1 TIE CFA	04QB9.11
	ULC – Collocation w/T3 TIE CFA	04QB6.33

BellSouth Unbundled Loop Concentration

Loop Interface and Loop Ordering - LSR Requirements

LSR Field	Information Required			
NC/NCI	Loop Type	NC	NCI at CKL-1	SEC NCI at End User*
	2 Wire UVL – Loop Start Signaling	LY--	04QB9.11	02LS2
	2 Wire UVL – Ground Start Signaling	LY--	04QB9.11	02GS2
	2 Wire UVL – Reverse Battery Signaling	LY--	04QB9.11	02RV2.T
	4 Wire UVL – Loop Start Signaling	LY--	04QB9.11	04LS2
	4 Wire UVL – Ground Start Signaling	LY--	04QB9.11	04GS2
	4 Wire UDL – 56 Kbps Digital Signaling	LY--	04QB9.11	04DU5.56
	4 Wire UDL – 64 Kbps Digital Signaling	LY--	04QB9.11	04DU5.64
	2 Wire UDL – Basic Rate ISDN Signaling	LY--	04QB9.11	02IS5
	2 Wire UDL – Unbundled Digital Channel	LY--	02QC5.00Q	02IS5
ECCKT	CLF ID (associated with DS1 and can be obtained from the ULC System Establishment FOC)			
CFA	Carrier Facility Assignment (must include the slot number)			

Service Inquiry (SI) form

A Service Inquiry is required for ordering an ULC system(s). The SI is in a separate document titled “**Unbundled Loop Concentration Service Inquiry**”. This document contains instructions for preparing the SI.

LSR & SI Transmittal for System Establishment

- CLEC sends the firm order SI and LSR to a CRSG/Account Team Representative.
- The CLEC must submit the SI by email to the CRSG. The LSR should also be submitted via email. Refer to “**Guidelines for Interfacing with the CRSG UNE Group**” section for the submission requirements.
- CLEC should contact its BellSouth Account Team Representative for additional information regarding transmittal of SI and LSR if CRSG Representative is not known.

BellSouth Unbundled Loop Concentration

Rate Elements & USOCs

Rates for ULC must be included in your contract. Rates may be interim pending approval of final rates by the respective State Commissions.

System Rate Elements	USOC
ULC – TR008 System A – 96 Channels	UCT8A
ULC—TR008 System B – 96 Channels	UCT8B
ULC – TR303 System A – 96 Channels	UCT3A
ULC – TR303 System B – 96 Channels	UCT3B
ULC – DS1 Interface Central Office	UCTCO

Loop Interface Rate Elements	USOC
ULC Interface - 2 Wire Voice - Loop Start or Ground Start	ULCC2
ULC Interface - 2 Wire Voice – Reverse Battery	ULCCR
ULC Interface - 4 Wire Voice - Loop Start or Ground Start	ULCC4
ULC Interface – 2 Wire ISDN	ULCC1
ULC Interface – 2 Wire UDC	ULCCU
ULC Interface – 4 Wire Digital 56 Kbps	ULCC5
ULC Interface – 4 Wire Digital 64 Kbps	ULCC6
ULC Interface – Test Circuit	ULTTC

Other Non-Recurring Charges

Expedite Charge – applies if CLEC requests order interval of less than five days.

Manual Service Order -- applies if order is manually submitted and electronic ordering is available

Order Cancellation – applies if the CLEC cancels an order. This charge is for work associated with provisioning the ULC system, Loop Interfaces and the associated loops at the time the CLEC cancels an order.

Service Order Modification Charge – Applies if the CLEC modifies a service order after the Firm Order Confirmation has been issued.

Overtime Charge – Applies for work requested outside of normal working hours.

Time & Material – Applies for dispatch out if "no trouble found"

BellSouth Unbundled Loop Concentration

Intervals

ULC System Establishment

An ULC system establishment installation interval will be established on an individual case basis (ICB).

Loop Interfaces (LI) and the Loops

BellSouth will provision the requested LIs and loops after the receipt of an accurate LSR and SI according to the intervals for the requested loop type in the **BellSouth Products & Services Interval Guide**.

Maintenance & Repair Procedures

The CLEC is responsible for testing and pre-screening any trouble conditions to make sure the trouble is with Unbundled Loop Concentration (ULC) before calling BellSouth. If the CLEC's testing isolates the repair problem to ULC, the CLEC should notify the Unbundled Network Element (UNE) Center.

The CLEC must provide the following information to UNE Center when reporting a repair problem:

- For ULC System, provide System DS1 CLFID
- For loop(s), provide the loop circuit ID
- Description of the trouble

If BellSouth dispatches a technician on a CLEC reported trouble call and no ULC trouble is found, BellSouth will charge the CLEC for time spent on the dispatch and for time spent testing the ULC system.

BellSouth Unbundled Loop Concentration

Contract Specific Provisions

Before ULC can be ordered, the CLEC must have an Interconnection Agreement that includes terms, conditions and rates. This agreement must be in effect for all states where the CLEC plans to order ULC.

The information contained herein applies to the ULC general offering and is part the standard BellSouth agreement. The general offering is in accordance with BellSouth policies, procedures and regulatory obligations as well as the Standard Interconnection Agreement.

The general offering does not address specific contract issues within a CLEC's Interconnection Agreement that may be different from the general offering. Where specific contract issues differ from the information provided here, the contract provisions will prevail for the term of the specific CLEC Interconnection Agreement. Otherwise, the general offering provisions will apply.

BellSouth Unbundled Loop Concentration

Guidelines for Interfacing with the CRSG UNE Group

Email Transactions

- The CLEC **must** submit Service Inquiries (SIs) to the CRSG UNE Group via **email**.
- The CLEC should also submit the associated LSR via email.
- Submit only 1 PON (SI & LSR) per mail message
- The CRSG UNE Group email address is crsg.une@bridge.bellsouth.com
- Use the following guidelines in formatting the email subject header:

PON 12345 UNE NEW	for a new UNE order
PON 12345 CORRECTION	for a CLEC initiated correction or update
PON 12345 CLARIFICATION RESPONSE	for a clarification response
PON 12345 STATUS	for a status request
PON 12345 Cancel	for a cancellation

Facsimile Transactions for LSRs only

- Only LSRs may be submitted via facsimile
- Requests submitted via facsimile should be sent to 800-365-8108
- The following guidelines should be used for requests submitted via facsimile:
 - < The request must be type written
 - < A transmittal cover page must be used
 - < The transmittal cover should include
 - PON Number(s)
 - **Total number of pages** transmitted
 - Contact information

BellSouth Unbundled Loop Concentration

Acronyms

AMI/SF	Alternate Mark Inversion/Super Frame
B8ZS/ESF	Binary Eight Zero Substitution/Extended Super Frame
B8ZS/SF	Binary Eight Zero Substitution/Super Frame
CLEC	Competitive Local Exchange Carrier
CLFID	Common Language Circuit Identification
CRSG	Complex Resale Services Group
DD	Due Date
DLC	Digital Loop Carrier
DSX	Digital Cross-Connection
FOC	Firm Order Confirmation
ICB	Individual Case Basis
LCSC	Local Carrier Service Center
LI	Loop Interface
LSOGv2	Local Service Ordering Guidelines version 2
LSOGv4	Local Service Ordering Guidelines version 4
LSR	Local Service Request
MDF	Main Distribution Frame
NC	Network Channel
NCI	Network Channel Interface
PON	Purchase Order Number
SEC NCI	Secondary Network Channel Interface
SI	Service Inquiry
SWC	Serving Wire Center
TR008	Technical Reference 008
TR303	Technical Reference 303
UDC	Universal Digital Channel
UDL	Unbundled Digital Loop
ULC	Unbundled Loop Concentration
ULC-CF	Unbundled Loop Concentration – Concentration Functionality
ULC-LI	ULC Loop Interface
UNE	Unbundled Network Element
UVL	Unbundled Voice Grade Loop