

ORIGINAL

Exhibit No: ____

Issues: Cost study assumptions;
Loop conditioning policies and procedures;
Loop qualification;

Witness: Terry L. Murray

Type of Exhibit: Surrebuttal Testimony

Sponsoring Party: Covad Communications Co.

Case No: TO-2000-322

**SURREBUTTAL TESTIMONY OF TERRY L. MURRAY ON BEHALF OF
COVAD COMMUNICATIONS COMPANY FOR ARBITRATION OF
INTERCONNECTION RATES, TERMS, CONDITIONS, AND RELATED
ARRANGEMENTS WITH SOUTHWESTERN BELL TELEPHONE COMPANY**

*****REDACTED*****

FILED

FEB 10 2000

**Missouri Public
Service Commission**

VERIFICATION

STATE OF MISSOURI)
) SS:
COUNTY OF *St. Louis*)

Comes now Terry L. Murray, being of lawful age and duly sworn, who states that she is the witness who has provided the foregoing testimony, that she has prepared and read the foregoing testimony, and that the information contained therein is true and accurate to the best of her knowledge and belief.

Terry L. Murray
Terry L. Murray

Subscribed and sworn to before me on this 10th day of February, 2000.

Tamara D. Appleton
Notary Public

My Commission Expires:

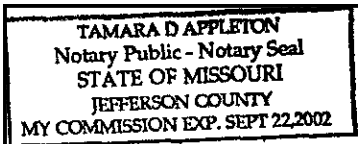


TABLE OF CONTENTS

PAGE

I. INTRODUCTION AND SUMMARY.....	1
II. SWBT'S COST STUDIES OVERSTATE COSTS BECAUSE THEY DO NOT REFLECT THE "LOWEST COST NETWORK CONFIGURATION," AS TELRIC PRINCIPLES REQUIRE.	3
III. SWBT'S REBUTTAL TESTIMONY DOES NOT REHABILITATE ITS EXCESSIVE, NON-COST-BASED LOOP QUALIFICATION CHARGE.	8
IV. NEWLY PRODUCED INFORMATION CONFIRMS THAT SWBT'S ATTEMPT TO RECOVER NONRECURRING LOOP "CONDITIONING" COSTS IS INCONSISTENT WITH TELRIC PRICING PRINCIPLES.	11
V. SWBT'S REBUTTAL TESTIMONY DOES NOT PROVIDE ADEQUATE SUPPORT FOR ITS PROPOSED HIGH ISDN PRICES.	28
VI. SWBT'S REBUTTAL TESTIMONY STILL PROVIDES NO FACTUAL BASIS FOR ITS PROPOSED CROSS-CONNECTION CHARGES.	34
VII. THE COMMISSION SHOULD NOT PERMIT SWBT TO ADD A COMMON COST MARKUP TO ITS PROPOSED NONRECURRING CHARGES IN THIS ARBITRATION.	35
SCHEDULE 1 – DATA RESPONSES IN TEXAS SWBT-COVAD ARBITRATION	

1 **I. INTRODUCTION AND SUMMARY**

2 **Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

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

5 **Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS**
6 **PROCEEDING?**

7 A. Yes, I filed direct testimony on January 7, 2000, and rebuttal testimony on
8 January 28, 2000, on behalf of Covad Communications Company ("Covad")
9 concerning economic and policy issues raised by Southwestern Bell Telephone
10 Company, Inc. ("SWBT") in its response to Covad's Petition for Arbitration. My
11 curriculum vita provided as Attachment TLM-1 to my direct testimony presents
12 my qualifications and experience as they relate to the issues in this proceeding.

13 **Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

14 A. My surrebuttal testimony addresses the certain arguments presented in the January
15 28, 2000, rebuttal testimonies of SWBT witnesses Borders, Latham, Lube and
16 Smallwood. I also address issues raised by the Commission's
17 Telecommunications Department Staff ("Staff"), as presented in Mr. Clark's
18 rebuttal testimony.

19 In many instances, the SWBT rebuttal testimony merely restates or repeats
20 a SWBT position that I have already addressed in either my direct or my rebuttal
21 testimony. In such cases, I have striven not to burden the record by repeating my
22 previous testimony herein. Therefore, the Commission should not construe my

1 silence on any specific issue raised in SWBT's rebuttal testimony to indicate my
2 agreement with SWBT's position. Instead, lack of comment in this surrebuttal
3 testimony typically indicates that I have already addressed the content of SWBT's
4 rebuttal in my previous testimony.¹

5 **Q. PLEASE SUMMARIZE YOUR SURREBUTTAL TESTIMONY.**

6 **A.** In the remainder of my surrebuttal testimony, I establish the following points:

- 7 • SWBT's cost studies overstate costs because they do not reflect the "lowest
8 cost network configuration," as Total Element Long Run Incremental Cost
9 ("TELRIC") principles require.
- 10 • SWBT's rebuttal testimony does not rehabilitate its excessive, non-cost-based
11 loop qualification charge.
- 12 • SWBT's rebuttal testimony does not rectify the flaws in its excessive and
13 inadequately supported "conditioning" charge proposals.
- 14 • Contrary to the position that SWBT's witnesses take in their rebuttal
15 testimonies, newly produced information confirms that SWBT's attempt to

¹ With limited exceptions, I also will not address those portions of SWBT's rebuttal testimony that respond to a position I did not actually take. For example, at pages 7-9 of his rebuttal, Mr. Latham responds to what he characterizes as my assertion that SWBT's conditioning costs "should be recovered through recurring rate." He implies in that discussion that I have advocated creating a new recurring rate through which SWBT would charge its claimed non-recurring "conditioning" costs and proceeds to argue against that approach. My direct testimony did point out that, even if it were correct to consider "conditioning" to be a non-recurring cost, the FCC pricing rules allow the Commission to recover non-recurring costs in recurring rates. I did and do not, however, propose creating any new recurring rate to recover "conditioning" costs. Instead, my direct testimony (in combination with Mr. Donovan's) shows that SWBT's recurring price for an 8 dB loop *already* recovers the cost of providing a loop that is "conditioned" to be free of load coils, repeaters and excessive bridged tap; therefore, no additional compensation for "conditioning" is required in a TELRIC model.

1 recover nonrecurring loop "conditioning" costs is inconsistent with TELRIC
2 pricing principles.

- 3 • SWBT's rebuttal testimony does not provide adequate support for its proposed
4 high ISDN prices.
- 5 • SWBT's rebuttal testimony still provides no factual basis for its proposed
6 cross-connection charges.
- 7 • The Commission should exclude any common cost markup from SWBT's
8 nonrecurring charges, as Staff witness Mr. Clark has recommended.

9 **II. SWBT'S COST STUDIES OVERSTATE COSTS BECAUSE THEY DO**
10 **NOT REFLECT THE "LOWEST COST NETWORK CONFIGURATION,"**
11 **AS TELRIC PRINCIPLES REQUIRE.**

12 **Q. WHAT IS YOUR UNDERSTANDING OF THE NETWORK**
13 **ARCHITECTURE THAT SWBT INTENDS TO DEPLOY ON A**
14 **FORWARD-LOOKING BASIS?**

15 A. Documents newly produced in response to the Commission's Order granting
16 Covad's Motion to Compel make clear that SWBT's forward-looking network
17 architecture is the architecture that it is currently building pursuant to "Project
18 Pronto." "Of the \$6 billion that SBC plans to invest over the next three years, 75
19 percent will be directed toward improvements to the basic loop infrastructure (i.e.,
20 fiber feeder and next-generation remote terminals)."² The purpose of SWBT's
21 network upgrades is "to create a robust, comprehensive, data-centric broadband

² "SBC Announces Sweeping Broadband Initiative," SBC Investor Briefing No. 211, October 18, 1999, at 2 (hereinafter, "SBC Investor Briefing"), provided in response to Covad Data Request No. 1-1.

1 network architecture.”³ The new network design will be more DSL-friendly
2 because “[t]he deployment of fiber and next-generation remote terminals will
3 enable SBC to overcome loop-length and line condition limitations in its
4 network.”⁴

5 **Q. DO SWBT’S COST STUDIES REFLECT THE PROJECT PRONTO**
6 **NETWORK ARCHITECTURE?**

7 A. No, they do not. SWBT’s cost witness, Mr. Smallwood, testified in deposition
8 that SWBT had not modified its cost studies to conform to the new network
9 architecture. He had no opinion concerning the cost consequences of such a
10 modification.⁵

11 **Q. SHOULD SWBT HAVE REFLECTED THE KEY ATTRIBUTES OF THE**
12 **PROJECT PRONTO ARCHITECTURE IN ITS COST STUDIES IN THIS**
13 **ARBITRATION?**

14 A. Yes. The new architecture was announced prior to this arbitration, and SWBT is
15 in the process of deploying plant to conform to this architecture. *** **HIGHLY**

16 **CONFIDENTIAL** [REDACTED]

17 [REDACTED] **END HIGHLY**

³ *Id.* at 1.

⁴ *Id.* at 4.

⁵ Smallwood Deposition, TR _____. Mr. Smallwood’s deposition was taken yesterday afternoon, February 9, 2000. I have not yet had an opportunity to review the final transcript in order to provide citations herein. I will provide citations to Mr. Smallwood’s deposition as soon as possible.

⁶ Smallwood Deposition, TR _____.

1 **CONFIDENTIAL ***** Moreover, it is abundantly clear that SWBT considers
2 the new network architecture to be the "lowest cost network configuration," as the
3 FCC's pricing rules require.⁸

4 **Q. WHAT ARE THE COST RAMIFICATIONS OF SWBT'S CHANGE TO**
5 **THE PROJECT PRONTO ARCHITECTURE?**

6 A. SWBT expects substantial cost savings as a result of deploying this new
7 architecture. In SBC's own words,

8 SBC's new network investments will have a profound
9 impact on its cost structure; in fact, the efficiencies SBC expects to
10 gain will pay for the cost of the deployment on an NPV basis.
11 These efficiencies are conservatively targeted to yield annual
12 savings of about \$1.5 billion by 2004 (\$850 million in cash
13 operating expense and \$600 million in capital expenditures)."⁹

14 **Q. CAN YOU PROVIDE A SPECIFIC EXAMPLE OF THE EXPECTED**
15 **COST SAVINGS, USING A COST THAT IS AT ISSUE IN THIS**
16 **ARBITRATION?**

17 A. Yes. SWBT's proposed cost and price for partially mechanized loop qualification
18 substantially exceed the costs that SBC's projections for Project Pronto show that
19 the company expects to achieve as early as this year. SBC has publicly admitted
20 that "[n]etwork improvements will *eliminate* the need to 'qualify' a customer for
21 DSL services, ..." ¹⁰ and *** **HIGHLY CONFIDENTIAL** [REDACTED]

7 47 C.F.R. §51.505(b)(1).

8 *Id.*

9 SBC Investor Briefing at 7.

10 *Id.* at 8.

1

2

3

4

5

6

7

8

9

10

11

¹¹ END HIGHLY

12

CONFIDENTIAL *** This percentage of manual intervention required in 2000 is generally consistent with the projections that SWBT projected in developing the functional requirements for its new mechanized loop qualification system. In identifying the benefits of that system, SWBT indicated that:

13

14

15

16

***** PROPRIETARY**

17

18

19


20

¹²¹¹

"Investing for the Future," 31st sheet (not numbered) entitled "Loop Qualification and Conditioning Savings," provided in response to Covad Data Request 1-2. ***** HIGHLY CONFIDENTIAL**

END HIGHLY CONFIDENTIAL ***¹²

George Phillips, "Loop Qual System: SWBT Functional Requirements Specification, Baseline Document," Version 1.0, Revision 3, March 18, 1999, at 5. SWBT provided this document in response to Covad Data Request 1-65.

1 Applying the manual occurrence percentages from SBC's business case to
2 SWBT's partially mechanized loop qualification study would reduce the cost of
3 loop qualification from *** **HIGHLY CONFIDENTIAL**  **END**
4 **HIGHLY CONFIDENTIAL** *** This is the maximum cost figure that the
5 Commission should use in setting prices for mechanized loop qualification.

6 Recall, however, that these manual occurrence percentages are for 2000,
7 not for the long run. The functional specifications for the loop qualification
8 system clearly indicate an expectation of even greater savings in the long run, and
9 the SBC Investor Briefing contemplates that Project Pronto will eventually
10 eliminate the need for loop qualification. Thus, as the Arbitrators found in the
11 SWBT-Covad Texas arbitration, the charge for loop qualification should be \$0,
12 even where manual loop qualification is sometimes required today. Otherwise,
13 SWBT will have no incentive to continue investing in improvements to its loop
14 qualification system.

15 **Q. WOULDN'T EVEN THE MOST EFFICIENT MECHANIZED LOOP**
16 **QUALIFICATION SYSTEM INVOLVE SOME MANUAL ACTIVITIES**
17 **TO CORRECT INACCURACIES IN SWBT'S DATABASES?**

18 **A.** Perhaps, but SWBT has already been compensated in its recurring costs for the
19 maintenance and upgrade of its Operations Support Systems and related
20 databases, including correcting inaccuracies in those databases. In newly
21 produced data responses, SWBT concedes that it tracks expenses associated with
22 maintaining accurate databases in Accounts 6124 and 6724. SWBT used the
23 former account to develop its computer support asset loading for recurring cost

1 studies and the latter account to develop its common cost allocator.¹³ Thus,
2 SWBT's recurring prices for unbundled network elements already compensate the
3 company for providing accurate databases.

4 For similar reasons, a US West witness in a recent Oregon universal
5 service proceeding observed that:

6 Maintaining a service address database is a basic business
7 requirement and should already be reflected in basic service cost
8 studies. The cost of converting those addresses to geocodes is new
9 and specific to universal service. In the event that these costs are
10 excessive, ETCs [Eligible Telecommunications Carriers] should be
11 allowed the opportunity to recover the cost of converting valid
12 service addresses to geocodes, but not the cost of correcting ETC's
13 invalid addresses. This will compensate ETCs for additional
14 expenses while avoiding any double compensation for basic
15 functions.¹⁴

16 This Commission should hold SWBT to an equally rigorous standard of accuracy
17 and avoid double-recovery of the costs of providing such accurate records.

18 **III. SWBT'S REBUTTAL TESTIMONY DOES NOT REHABILITATE ITS**
19 **EXCESSIVE, NON-COST-BASED LOOP QUALIFICATION CHARGE.**

20 **Q. ALTHOUGH YOUR DISCUSSION ABOVE PROVIDES MORE**
21 **INFORMATION CONCERNING FORWARD-LOOKING LOOP**
22 **QUALIFICATION COSTS, YOUR OVERALL POSITION REMAINS THE**
23 **SAME AS THE ONE THAT YOU ESPOUSED IN YOUR DIRECT**
24 **TESTIMONY. SWBT'S REBUTTAL WITNESSES MR. BORDERS AND**
25 **MR. LUBE BOTH TOOK ISSUE WITH YOUR POSITION ON LOOP**

¹³ SWBT Response to Covad 1-77.

1 QUALIFICATION. DOES THEIR REBUTTAL TESTIMONY
2 SUBSTANTIATE SWBT'S PROPOSED LOOP QUALIFICATION
3 CHARGE?

4 A. No. Mr. Borders' testimony instead provides a good example of why the
5 Commission should decline to base rates on SWBT's poorly documented, vague
6 cost analysis. SWBT's cost study, like Mr. Borders' new analysis, relies on
7 naming several different potential tasks and then pronouncing that some task time
8 is a good estimate for the overall set of tasks. As usual, SWBT fails to provide
9 discrete task times and occurrences for each sub-task so that it is nearly
10 impossible to demonstrate that the composite estimate is unreasonable. Mr.
11 Borders demonstrates that phenomenon when he acknowledges that SWBT's
12 original study included time "to analyze [the] effect of disturber technology in the
13 same and adjacent binder groups," but then claims that eliminating that effort will
14 not reduce the overall service time estimate. It is not possible for SWBT's time
15 estimate to have been correct both before and after eliminating a major subtask.
16 SWBT's failure to provide detail supporting its analysis, however, allows it to
17 make such assertions without having to provide the corresponding math.

18 Mr. Lube's similar claim that the same level of manual work is involved in
19 SWBT's original and its forward-looking loop qualification process plans is
20 unreasonable on its face.

¹⁴ Direct Testimony of Byron Watson for U S WEST Communications, Inc., in Oregon
Public Utility Commission Docket No. UM 731, at 17.

1 **Q. IS SWBT’S POSITION ON LOOP QUALIFICATION INTERNALLY**
2 **CONSISTENT?**

3 A. No. At page 5, Mr. Lube asserts that all LFACS and TIRKS data that is “relevant
4 to xDSL provisioning will be made available to CLECs via the electronic access
5 described above.” Mr. Borders, however, argues at pages 17-18 of his rebuttal
6 that a SWBT engineer will still be required to analyze SWBT’s data because
7 SWBT, apparently, does not plan to provide sufficient data for the Covad’s own
8 engineers to determine if a suitable loop is available.

9 **Q. HOW SHOULD THE COMMISSION ADDRESS THE POTENTIAL COST**
10 **EFFECTS OF THIS INCONSISTENCY?**

11 A. As Mr. Clark notes at page 4 of his rebuttal, the recent Texas arbitration award
12 between SWBT and Covad requires SWBT to make loop qualification data
13 available on an electronic, preorder basis. Presuming that the Commission allows
14 SWBT to implement a qualification charge at all, Mr. Clark’s proposal that that
15 charge should end at the time SWBT has been ordered to provide a mechanized
16 system is reasonable. The Commission should adopt Staff’s recommendation, at
17 a minimum, regardless of whether SWBT actually delivers all of the necessary
18 functionality that will enable Covad to perform its own qualification. In that
19 manner, the Commission will properly place the burden and cost on SWBT for
20 any residual manual look up requirements that result from SWBT’s failure to
21 deliver all of the information that is necessary for Covad to obtain parity with
22 SWBT via SWBT’s mechanized interface.

1 **Q. DOES SWBT'S TESTIMONY HIGHLIGHT ANY ADDITIONAL**
2 **REASONS THAT SWBT'S PROPOSED LOOP QUALIFICATION**
3 **CHARGES ARE TOO HIGH?**

4 A. Yes. As Mr. Lube notes at page 6, SWBT's ongoing mechanization efforts will
5 capture additional loop information over time. If SWBT performs a manual
6 qualification at Covad's request, SWBT will also receive the benefit of that effort
7 in the form of improved electronic records concerning its network. In effect,
8 SWBT will obtain Covad's assistance in funding its efforts to improve its data
9 quality. Provided it feels additional justification is required, the Commission
10 would be justified from a policy perspective in reducing SWBT's proposed
11 qualification price to recognize Covad's contribution to improving SWBT's data
12 quality.

13 **IV. NEWLY PRODUCED INFORMATION CONFIRMS THAT SWBT'S**
14 **ATTEMPT TO RECOVER NONRECURRING LOOP "CONDITIONING"**
15 **COSTS IS INCONSISTENT WITH TELRIC PRICING PRINCIPLES.**

16 **Q. DOES NEWLY PRODUCED INFORMATION ABOUT SWBT'S**
17 **FORWARD-LOOKING NETWORK ARCHITECTURE HAVE**
18 **IMPLICATIONS FOR SWBT'S LOOP "CONDITIONING" COSTS AND**
19 **PRICES?**

20 A. Yes, it does. The Project Pronto information underscores the importance of
21 considering the same forward-looking network design when calculating recurring
22 and nonrecurring costs. The Project Pronto documents unequivocally indicate
23 that the purpose of SBC's investment in an upgraded network design (investments
24 that would be reflected in the *recurring costs* of unbundled network elements such

1 as unbundled loops) is, in many cases, to avoid incurring costs such as loop
2 qualification and conditioning that SWBT has treated as nonrecurring costs in this
3 arbitration. SWBT's approach to costing in this arbitration has failed to recognize
4 these tradeoffs and thus has overstated the total forward-looking cost of providing
5 the functionality of "conditioned" loops.

6 **Q. DOES SWBT'S REBUTTAL TESTIMONY ADEQUATELY ADDRESS**
7 **THE LEAST-COST, TOTAL SERVICE REQUIREMENTS OF TELRIC?**

8 A. No. In their rebuttal testimonies, Mr. Latham, at pages 5 through 9, and Mr.
9 Smallwood, at pages 3 through 8 and 13, devote considerable energy to re quoting
10 and discussing the selection of FCC quotations that appear to support SWBT's
11 position. SWBT ignores the remainder of the FCC's requirements for TELRIC
12 development, which, as I discussed in my direct testimony, support Covad's
13 recommendations in this proceeding.¹⁵

15

This approach is perhaps most pronounced at pages 7-8 of Mr. Smallwood's rebuttal. Therein, he extracts a single sentence from paragraph 685 of the FCC 96-325 (the Local Competition First Report and Order) and uses that sentence to suggest that my interpretation of TELRIC is incorrect. Paragraph 685 is significant in that it is where the FCC initially defined the basic network design requirements for its TELRIC approach to cost modeling. Our differing interpretations of TELRIC are significant as they are central to the "conditioning" issue in this proceeding (*i.e.*, that difference in interpretation forms a basis for SWBT's suggestion that the FCC's methodology allow it to recover whatever conditioning costs it "actually" incurs as opposed to my position as an economist and as an interpreter of the FCC's language that SWBT is entitled to recover recurring and non-recurring costs that are consistent with a "reconstructed" network, holding steady only wire center locations, and building to current, efficient standards). Given the substantial variation between SWBT and myself on this point, I urge the Commission to read the entire related language that paragraph with both my testimony and Mr. Smallwood's rebuttal in mind and to consider Mr. Smallwood's admission in his deposition that he has not even read the FCC's regulations implementing its TELRIC methodology. Smallwood Deposition, TR ____.

1 **Q. WHAT IS THE APPARENT BASIS FOR SWBT'S ERRONEOUS**
2 **POSITION ON THIS ISSUE?**

3 A. It appears that SWBT is taking the position that it is acceptable to use different
4 network designs for recurring loop costs and nonrecurring "conditioning" costs
5 because unbundled loops and "conditioning" are two different network
6 elements.¹⁶

7 **Q. IS SWBT'S POSITION CORRECT?**

8 A. No. The definition of the loop element that the FCC adopted in its recent *UNE*
9 *Remand Order* specifies that "conditioning" is part of the functionality of the
10 unbundled loop element, not a separate element.¹⁷ Thus, to limit the total price
11 for the "conditioned" loop element to the total forward-looking cost of that
12 element, it is essential that the same forward-looking network design be assumed
13 for both the recurring and nonrecurring cost calculations.

14 **Q. DOES THE FACT THAT "CONDITIONING" IS PART OF THE**
15 **FUNCTIONALITY OF THE UNBUNDLED LOOP HAVE ANY**
16 **ADDITIONAL SIGNIFICANCE IN MISSOURI?**

17 A. Yes. The Commission's order in the AT&T/MCI arbitration that adopted the
18 recurring prices for unbundled loops that SWBT proposes to apply in this
19 arbitration stated unequivocally that SWBT was not authorized to apply *any*

¹⁶ See SWBT Response to Covad Data Request 1-18. Although he is not identified as the responsible person for this response, Mr. Smallwood adopted this response in his deposition testimony. Smallwood Deposition, TR _____, Exhibit 15.

¹⁷ 47 CFR § 51.319(a)(1).

1 charges in addition to the recurring and nonrecurring charges approved in that
2 decision because those charges reflected the total cost of the loop functionality.¹⁸
3 That Order did not adopt any "conditioning" charges; therefore, it would appear
4 on the face of the Commission's decision that such charges would be
5 impermissible given that Covad has agreed to pay all the relevant recurring and
6 nonrecurring charges adopted in the AT&T/MCI arbitration.

7 **Q. AS FURTHER SUPPORT FOR ITS INTERPRETATION OF THE**
8 **PERMISSIBILITY OF NONRECURRING LOOP "CONDITIONING"**
9 **CHARGES, SWBT'S REBUTTAL TESTIMONY CITES THE FCC'S**
10 **OPINION IN THE BELL ATLANTIC 271 PROCEEDING. DOES THIS**
11 **LANGUAGE IN ANY WAY CHANGE YOUR VIEW THAT**
12 **NONRECURRING "CONDITIONING" CHARGES WOULD BE A**
13 **DOUBLE-COUNT OF THE COSTS ALREADY RECOVERED**
14 **THROUGH SWBT'S RECURRING LOOP PRICES?**

15 **A.** No. The quotation that Mr. Latham supplies at page 10 of his rebuttal testimony
16 is provided out of context. The FCC concludes the paragraph that Mr. Latham
17 cites by stating:

18 We are not in a position to judge whether Bell Atlantic's interim
19 rates are too high until the New York Commission has completed
20 its review. Given the limited scope of Bell Atlantic's interim rates,
21 the refund mechanism and the New York Commission's track
22 record in reviewing Bell Atlantic's rates, we find that Bell
23 Atlantic's interim rates for xDSL-capable loops meet the checklist
24 requirement at this time. We note, however, that any significant

¹⁸

Final Arbitration Order in Case Nos. TO-97-40 and TO-97-67, at 4.

1 time delay in permanent rates could be a basis for finding
2 noncompliance with section 271 requirements.¹⁹

3 In other words, the FCC clearly did not endorse any portion of the current
4 Bell Atlantic - New York conditioning cost calculation. Instead, it merely found
5 that those costs, given that they are interim and subject to refund, were not
6 sufficient in and of themselves to “be a basis for finding noncompliance with
7 section 271 requirements.”

8 Mr. Latham’s use of the out-of-context FCC quotation further suffers in
9 that Mr. Latham introduces a stretched, inaccurate reading of the FCC’s language
10 to support his position. The FCC’s statement merely notes that dispatching a
11 technician to remove load coil and bridge taps for one loop at a time “may be
12 expensive.” That observation in no way supports the position that loops should
13 actually be conditioned one at a time or that such conditioning is consistent with
14 TELRIC. Instead, the specific evidence at hand in this proceeding confirms that
15 such a practice would be substantially inefficient and would, therefore, violate the
16 FCC’s TELRIC principles.

17 Finally, Mr. Latham’s attempt to analogize between SWBT’s proposals
18 and the situation with Bell Atlantic - New York is highly misleading. For
19 example, Mr. Latham either does not know or did not mention that Bell Atlantic -
20 New York is proposing to remove load coils for all loops shorter than 18,000 feet,
21 bridged tap over 6,000 feet in total length (and repeaters generally) without

¹⁹ FCC 99-404 at ¶ 261.

1 charge²⁰ as part of its provision of unbundled DSL-capable loops. Bell Atlantic –
2 New York also does not charge for restoral of bridged tap. In other words, the
3 FCC is concerned that Bell Atlantic – New York’s charges may “be a basis for
4 finding noncompliance with section 271 requirements,” even though Bell Atlantic
5 - New York has voluntarily agreed that conditioning charges should not apply in
6 many or even most of the instances in which SWBT is currently proposing to
7 apply substantial conditioning charge.

8 **Q. DOES SWBT’S REBUTTAL TESTIMONY SUPPORT THE FACTUAL**
9 **BASIS FOR THE CONCLUSIONS CONCERNING LOOP**
10 **“CONDITIONING” IN YOUR DIRECT TESTIMONY?**

11 A. Yes. Mr. Smallwood’s discussion, at pages 11 and 12 of his rebuttal, confirms
12 my basic assertions regarding SWBT’s inconsistent approach to costing recurring
13 and nonrecurring elements. In particular, Mr. Smallwood confirms that load coils
14 are entirely inconsistent with the network that SWBT assumed to develop its
15 recurring costs. Once again, SWBT admits that it is guilty of the improper “mix
16 and match” approach to costing that I described in my direct testimony. As I
17 stated in that testimony, state commissions in Texas, California and New York
18 have all found such inconsistencies in network architecture assumptions between
19 recurring and nonrecurring cost studies to be an inappropriate application of the
20 TELRIC methodology.

20

See State of New York Public Service Commission, Case 98-C-1357, Proceeding on Motion of the Commission to Examine New York Telephone Company’s Rates for Unbundled Network Elements, DSL Track, hearing transcript, at Tr. 528-529.

1 **Q. STARTING AT PAGE 11 OF HIS REBUTTAL, MR. LUBE RESPONDS**
2 **TO YOUR SHOWING THAT SWBT IS PROPOSING TO DOUBLE-**
3 **RECOVER LOOP "CONDITIONING" COSTS. IS MR. LUBE'S**
4 **DISCUSSION CORRECT?**

5 A. No. Mr. Lube does not appear to understand either the basis for the discussion in
6 my direct testimony or the nature of forward-looking cost analysis such as
7 TELRIC. According to Mr. Lube, "the kernel" of the argument in my direct
8 testimony is the "assumption that the fiber/DLC loop design is more costly than
9 an all-copper loop design."²¹ Mr. Lube continues to assert that my argument must
10 be incorrect because SWBT (claims to have) assumed a fiber/DLC loop design in
11 its study only in places where that design produces a lower cost than an all-copper
12 loop design would have done. Mr. Lube's rebuttal is simply irrelevant as my
13 testimony does not depend on SWBT having assumed that fiber/DLC technology
14 is more expensive than copper for any given loop in the sense that Mr. Lube
15 appears to believe.

16 The essence of my argument is, instead, that a proper analysis of total
17 forward-looking costs must assume the same network design for both recurring
18 and nonrecurring costs. Any deviation from that consistency can lead to errors —
19 sometimes overstatement of total costs, other times understatements.²² The
20 important point is that *inconsistency is always wrong*.

²¹ Lube rebuttal at pages 11-12 (footnote omitted).

²² Of course, if the network design reflected in SWBT's recurring cost study is truly the least-cost (on a *total* cost basis) network design, then deviations from that network design in the nonrecurring cost study are most likely to result in an *overstatement* of total costs.

1 Even the forward-looking network design in SWBT's current loop cost
2 studies would not include load coils, repeaters or excessive bridged tap. If that
3 network architecture were physically in place today, SWBT would never incur the
4 kinds of nonrecurring "conditioning" costs that form the basis of its proposed
5 charges for removal of load coils, repeaters and bridged tap. SWBT is now
6 exercising the option to accelerate the placement of even more modern
7 technology than it had assumed in its recurring loop cost study. The Project
8 Pronto architecture will eventually enable SWBT to avoid incurring any
9 nonrecurring "conditioning" costs whatsoever. Thus, the *maximum* total cost that
10 SWBT should be able to charge for unbundled DSL-capable loops is the cost that
11 it would incur to provide entirely new loops, free of load coils and other DSL
12 inhibitor. SWBT's recurring prices for unbundled DSL-capable loops recover the
13 full forward-looking cost of loops that are "conditioned" to provide advanced
14 services such as DSL-based services. That is why any additional nonrecurring
15 "conditioning" charges would cause SWBT to over-recover its cost of providing
16 "conditioned" loops.

17 **Q. DO THE NEWLY PRODUCED DOCUMENTS CONFIRM THE LACK OF**
18 **NEED FOR NONRECURRING "CONDITIONING" ACTIVITIES, GIVEN**
19 **AN INCREMENT TO INVESTMENT IN LOOP INVESTMENT TO**
20 **PROVIDE THE FUNCTIONALITY OF "CONDITIONED" LOOPS?**

21 **A. Yes, they do. SWBT's business case analysis shows that *** HIGHLY**

22 **CONFIDENTIAL** [REDACTED]
23 [REDACTED]

1 [REDACTED] **END HIGHLY CONFIDENTIAL ***** It would be
2 appropriate and efficient to recover this incremental investment through recurring
3 charges. Indeed, given SBC's overall observation that the \$6 billion investment
4 in Project Pronto will be recovered through savings in operating and capital
5 expenses, without even considering the incremental revenues that the new
6 network design will enable SBC to obtain, there is no need for *any* increment to
7 the loop costs already reflected in SWBT's recurring loop prices.

8 As specific examples, SWBT's plan to migrate copper-based T-1 onto
9 fiber DS-1 circuits will reduce or eliminate the need to remove repeaters.
10 SWBT's decision to implement interfaced plant will eliminate any need to restore
11 bridged tap. *** **PROPRIETARY** [REDACTED]

12 [REDACTED]²⁴ **END**
13 **PROPRIETARY *****

14 **Q. WHAT CONSEQUENCES WOULD FLOW FROM ALLOWING SWBT**
15 **TO CHARGE A SEPARATE NONRECURRING "CONDITIONING"**
16 **CHARGE WHEN THE MONTHLY RECURRING CHARGE ALREADY**
17 **FULLY RECOVERS THE TOTAL COST OF A "CONDITIONED"**
18 **LOOP?**

19 **A.** The first and most obvious consequence is that the total price charged to Covad
20 for unbundled DSL-capable loops would exceed the true cost of providing those
21 loops, thus deterring Covad from entering the Missouri market even when it could

²³ "Investing in the Future," at 18.

1 be an economically efficient competitor. This entry deterrent should concern the
2 Commission because fewer Missouri consumers may even have the option of
3 buying DSL-based services at all, and certainly most Missouri customers will
4 have fewer choices available to them.

5 The second, and perhaps more subtle, consequence is that SWBT will
6 receive improper signals concerning when to modernize its network. A simple
7 analogy explains this point. The decision to buy a new car typically involves a
8 tradeoff between the higher monthly loan or lease payment associated with the
9 new vehicle versus the higher maintenance cost associated with an older vehicle.
10 At some point, the operating cost of the older car becomes so high that it is more
11 economic to dispose of the old vehicle and buy a new one, even if the previously
12 owned car is fully paid off and there are no monthly payments whatsoever. Now
13 suppose, however, that the owner of the older vehicle is guaranteed recovery of
14 the actual cost of all repairs needed to keep the car running. The individual would
15 never have any incentive to incur the cost of buying a new car, and would
16 continue operating the old vehicle long after it ceased to be economically rational
17 (from a societal perspective) to do so. The business case documents that SWBT
18 recently produced confirm the validity of this concern. *** **HIGHLY**

19 **CONFIDENTIAL** [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED]

1

2

END HIGHLY CONFIDENTIAL ***

3

4

5

6

7

8

9

10

11

12

13

14

15

16

The third, related consequence is one to which the Commission alluded in its Order granting Covad's Motion to Compel. SWBT is in the process of "rearchitecting" its network to provide advanced services such as the DSL-based services at issue in this arbitration. SWBT can take advantage of its knowledge of the planned roll-out of this new network architecture to disadvantage Covad and other competitors. The Commission noted one such possibility, namely, that SWBT would fail to inform Covad of planned network upgrades in an area and thereby induce Covad to pay for "conditioning" existing plant that is about to be replaced in the near future.²⁶ Given the perverse incentives created by allowing SWBT to recover "actual" costs for removal of load coils, repeaters and excessive bridged tap, SWBT might also delay the roll-out of its new technology in areas in which it knows Covad and other competitors plan to offer service, thereby causing higher-than-necessary prices for the Missouri consumers who buy DSL-based services from such competitors.

17

18

19

20

The best way to avoid each of these adverse consequences is to send SWBT a single set of consistent pricing signals, based on forward-looking economic cost. Therefore, as I have previously recommended, the Commission should limit the price that SWBT may obtain for "conditioned" loops to the

²⁵

"Investing for the Future" business case.

²⁶

Order Regarding Motion to Compel Responses to Data Requests, January 26, 2000, at 6.

1 recurring and nonrecurring costs based on a consistent, forward-looking network
2 design without load coils, repeaters or excessive bridged tap.

3 **Q. DO OTHER PORTIONS OF MR. LUBE'S TESTIMONY REFLECT THE**
4 **SAME MISUNDERSTANDING REGARDING THE DOUBLE-**
5 **COUNTING OF RECURRING VERSUS NONRECURRING COST IN A**
6 **TELRIC ANALYSIS?**

7 A. Yes. Mr. Lube's rebuttal of my testimony concerning SWBT's cost for restoring
8 bridged tap also misses the "kernel" of my testimony — that the non-interfaced
9 design which drove SWBT's non-recurring cost study assumption²⁷ is entirely
10 inconsistent with the assumptions in its recurring cost analysis, which includes no
11 non-interfaced plant. Moreover, Mr. Lube simply ignores my discussion of other
12 specific instances in which, even with an embedded network cost analysis, SWBT
13 would not restore bridged tap. Finally, his rebuttal ignores SWBT's failure to
14 consider the cost effect of the fact that any such restoral would be a future event
15 and should, therefore, be discounted if SWBT intends to recover that cost in
16 advance as it proposes to do.

17 **Q. AT PAGE 7, MR. CLARK SUMMARIZES THE BASIS FOR STAFF'S**
18 **RECOMMENDATIONS ON "CONDITIONING" PRICING. HE**
19 **CONCLUDES, IN PART, THAT "THE FCC HAS STATED THAT**

²⁷

See ACI Exhibit 171, attached. **HIGHLY CONFIDENTIAL *****

1 **INCUMBENT LECS MAY BE COMPENSATED FOR CONDITIONING,**
2 **BUT ALSO THAT SUCH CONDITIONING CHARGES SHOULD BE**
3 **CONSISTENT WITH TELRIC PRINCIPLES.” DO STAFF’S**
4 **RECOMMENDATIONS RESOLVE ALL OF THE FCC’S**
5 **REQUIREMENTS?**

6 A. Staff’s recommendations, particularly its proposed limits on the frequency with
7 which SWBT can apply line conditioning charges, provide a significant step in
8 the right direction relative to SWBT’s proposals. Staff’s suggestions do not,
9 however, completely resolve the FCC requirement that “conditioning charges
10 should be consistent with TELRIC principles.” As I discussed in my direct
11 testimony, the combination of the FCC’s various rulings related to TELRIC and
12 line “conditioning” creates a tension because the FCC seems to endorse
13 nonrecurring “conditioning” charges in some circumstances, whereas its TELRIC
14 principles would always preclude such charges.

15 As I discussed in my direct and rebuttal testimony, however, the FCC’s
16 requirements can only ultimately be met if the Commission limits SWBT to
17 recovering the total cost of providing “conditioned” loops in a manner that is
18 consistent with the overall model of its forward-looking, efficient network and
19 costs. Allowing SWBT to recover the full cost for a “conditioned” loop in its
20 monthly recurring charge and to impose a separate nonrecurring charge for
21 “conditioning” that same loop is inconsistent with TELRIC principles.

22 Q. **MR. LUBE SUGGESTS THAT SWBT’S “CONDITIONING” COSTS**
23 **SHOULD NOT BE BASED ON THE EFFICIENT PRACTICE OF**

1 **CONDITIONING MULTIPLE LINES AT ONCE BECAUSE, WHILE**
2 **THAT PRACTICE IS "PHYSICALLY POSSIBLE," SWBT DOES NOT**
3 **INTEND TO IMPLEMENT IT WHEN A NEW ENTRANT REQUESTS A**
4 **"CONDITIONED" LOOP. IS MR. LUBE'S POSITION REASONABLE?**

5 A. No. SWBT's claim that it will not pre-condition multiple DSL lines when
6 competitors trigger a line "conditioning" dispatch is inconsistent with its past
7 practice for its own retail operations. For example, *** PROPRIETARY [REDACTED]

8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]

13 **END PROPRIETARY *****²⁸ SWBT's past practice is further verified by Mr.
14 Lube's own assertion at page 14 of his rebuttal that SWBT cannot, in some cases,
15 condition an entire 25-pair binder group for DSL because SWBT previously pre-
16 conditioned the entire 25-pair group for T1 services.

17 SWBT's discovery that it is somehow too difficult or unreasonable to pre-
18 condition multiple pairs seems to have occurred only when SWBT was required
19 to estimate its cost for conditioning provided to competitive carriers. As Staff
20 witness Mr. Clark observes based on the Texas arbitration award, SWBT had

²⁸

SWBT response to Covad's First Set of Requests, Data Request No. 9, Attachment
"Transport Engineering and Construction Policy", Issue Date 1/99, Tab 3, page 1 of 3.
See Tab 20 page 1 of this same document for an additional example.

1 internal plans to pre-condition multiple pairs for its own DSL retail operations.²⁹

2 The concern that Mr. Clark voices at page 12 regarding Staff's own recalculations
3 of conditioning charges is, therefore, well founded. If the efficient practice for
4 conditioning embedded plant calls for pre-conditioning even 2 lines at a time,
5 then SWBT's cost and price would be overstated by about 50 percent.

6 **Q. DO THE PROJECT PRONTO MATERIALS NEWLY PRODUCED**
7 **AFFECT YOUR VIEW OF THE APPROPRIATENESS OF**
8 **"CONDITIONING" MULTIPLE PAIRS AT A TIME, IN THE EVENT**
9 **THAT "CONDITIONING" IS REQUIRED AT ALL IN SWBT'S**
10 **FORWARD-LOOKING NETWORK?**

11 A. Yes. As a technical matter, the kinds of "conditioning" addressed in SWBT's
12 cost study will only be required when SWBT provisions DSL-based services over
13 copper loops. SWBT has claimed that it would not be practical to "condition"
14 multiple pairs at a time because other pairs might be needed to provide POTS
15 service over long copper loop (and thus require load coils) or to provide T-1
16 service (thus requiring repeaters). Under Project Pronto, however, SWBT is
17 "rolling over" its existing voice and T-1 services to fiber facilities, eliminating the
18 need to reserve the option to provision those services over the same loops that
19 might be "pre-conditioned" to provide DSL-based services.³⁰

²⁹ Texas Exhibit ACI-171 confirms Mr. Clark's observation attached hereto as Schedule 1.

³⁰ See, generally, SBC Investor Briefing.

1 **Q. SWBT HAS EXPRESSED CONCERN THAT IT WILL ONLY RECEIVE**
2 **COMPENSATION FOR 1/50TH OF ITS “CONDITIONING” COSTS IF**
3 **THE COMMISSION ADOPTS “CONDITIONING” CHARGES BASED**
4 **ON “CONDITIONING” MULTIPLE PAIRS AT A TIME. IS THIS A**
5 **VALID CONCERN?**

6 **A.** No. Even such a reduced nonrecurring “conditioning” charge would overrecover
7 SWBT’s forward-looking costs because it would recover costs for the
8 functionality of providing “conditioned” loops that are already reflected in
9 SWBT’s recurring price for an unbundled loop. Moreover, SWBT would receive
10 compensation for the “preconditioning” work through the elimination of the need
11 for similar “conditioning” to provide its own, or its affiliate’s, retail POTS, ISDN
12 and DSL-based services over the remaining loops. As Mr. Donovan explains,
13 “conditioning” to remove repeaters is mandatory for all of these services;
14 “conditioning” to eliminate load coils and excessive bridged tap is mandatory for
15 ISDN and DSL-based services and desirable for voice services, particularly the
16 use of analog modems on POTS lines.

17 As an extreme accommodation to SWBT’s concerns, the Commission
18 could allow SWBT to track the use of other loops in the same binder group and to
19 impose a “conditioning” charge based on “conditioning” 50 loops at a time on any
20 new entrant that subsequently obtains one of those loops for the purpose of
21 providing DSL-based services. This approach is similar to the approach that the
22 FCC has mandated for the recovery of costs of building out the collocation
23 “common area.” In my opinion, however, such an approach would be far inferior

1 to relying on recurring prices to recover all of the costs of the functionality of
2 providing "conditioned" loops and would create the risk of significant cost
3 overrecovery.

4 **Q. THROUGH MR. BORDERS' REBUTTAL, HE INTRODUCES NEW**
5 **EVIDENCE TO SUPPORT SWBT'S PRIOR "CONDITIONING" COST**
6 **STUDY INPUTS. IS MR. BORDERS' PRESENTATION SUFFICIENT TO**
7 **SUPPORT THOSE STUDY ASSUMPTIONS?**

8 **A.** No. Mr. Borders' presentation fails a fundamental relevance hurdle in that it is
9 not based on a forward-looking analysis and is not grounded in the same
10 assumptions as SWBT's adopted recurring cost analysis. Mr. Borders does not
11 even claim that his recent data sources are consistent with SWBT's prior cost
12 analysis, nor does he provide any data to back up his post-study, non-TELRIC
13 support for SWBT's results. Furthermore, Mr. Borders' testimony is, at best, the
14 opinion of one expert. *** **HIGHLY CONFIDENTIAL** [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED] **END HIGHLY CONFIDENTIAL *****

31 See Smallwood Deposition, TR. _____.

32 Mr. Donovan's surrebuttal testimony provides further discussion of this last point, based on Mr. Borders' deposition testimony and other documents that SWBT has provided in discovery.

1 **Q. DOES MR. BORDERS' TESTIMONY PROVIDE ADDITIONAL**
2 **SUPPORT FOR YOUR BASIC ARGUMENT CONCERNING**
3 **"CONDITIONING" COSTS IN THIS PROCEEDING?**

4 A. Yes. Mr. Borders' testimony helps to demonstrate that the "conditioning" costs
5 reported by SWBT are traditionally considered recurring costs and that SWBT's
6 proposal to recover those costs from Covad on a nonrecurring basis is
7 discriminatory. Specifically, at page 11, Mr. Borders asserts that "... SWBT, in
8 Missouri alone, makes over 100,000 changes to circuits in the network every year
9 in the form of cable throws, line station transfers, and conditioning cable pairs for
10 T1 and other digital services." It is unlikely that SWBT charges its end users for
11 many, if any, of those network changes as a nonrecurring charge. Instead, such
12 modification and evolution of the network is typically recovered as part of
13 recurring rates.

14 **V. SWBT'S REBUTTAL TESTIMONY DOES NOT PROVIDE ADEQUATE**
15 **SUPPORT FOR ITS PROPOSED HIGH ISDN PRICES.**

16 **Q. AT PAGES 24 AND 25, MR. LUBE REBUTS YOUR CRITICISM OF**
17 **SWBT'S ISDN COST ANALYSIS. IS HIS REBUTTAL CONSISTENT**
18 **WITH THE DISCOVERY RESPONSES THAT SWBT HAS PRODUCED**
19 **IN THIS PROCEEDING?**

20 A. No. At page 25 of his rebuttal, Mr. Lube appears to assert that SWBT's cost
21 study and its current practices both deploy equipment other than Next Generation
22 Digital Loop Carrier ("NGDLC"). That claim does not square with the
23 engineering guidelines that SWBT provided in response to discovery in his

1 deposition. For example, the SBC Communications Loop Deployment Policies
2 and Guidelines, revised May 1, 1998, at sections 5.3.2 and 5.3.3 state, ***

3 **PROPRIETARY**

4 [REDACTED]
5 [REDACTED]
6 [REDACTED]

7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]

16 [REDACTED]
17 [REDACTED]

18 [REDACTED]

19 [REDACTED]
20 [REDACTED]
21 [REDACTED]

END PROPRIETARY ***

22 **Q. HAVE SWBT'S PROJECT PRONTO DOCUMENTS SHED ANY NEW**
23 **LIGHT ON THIS ISSUE?**

24 **A.** Yes. As I have noted above, SBC has publicly stated that its Project Pronto
25 network architecture depends on the use of NGDLC equipment, which will enable
26 SWBT to provide DSL-based services over fiber/DLC loops. Thus, even if it
27 were true that SWBT did not previously deploy NGDLC equipment, its forward-
28 looking network architecture is unambiguously NGDLC-based. This is not the

1 type of DLC equipment assumed in SWBT's cost study for an unbundled ISDN
2 loop, as Mr. Smallwood conceded during his deposition.³³ Thus, SWBT's ISDN
3 cost study is not TELRIC-compliant.

4 **Q. DO THE NEWLY PRODUCED DOCUMENTS PROVIDE ANY FURTHER**
5 **INFORMATION THAT IS RELEVANT TO THE DETERMINATION OF**
6 **RECURRING COSTS AND PRICES FOR ISDN LOOPS IN THIS**
7 **ARBITRATION?**

8 **A.** Yes. As Mr. Donovan explains in his surrebuttal testimony, the newly produced
9 documents and data responses demonstrate that the costs assumed in SWBT's
10 study for the electronics equipment that is required to provide an unbundled ISDN
11 loop are substantially overstated. That is true even for SWBT's current or
12 embedded DLC technology, as Mr. Smallwood conceded in his deposition
13 testimony.³⁴

14 **Q. MR. SMALLWOOD ARGUES AT PAGE ** OF HIS REBUTTAL THAT**
15 **FACTORS OTHER THAN THE PRICE OF ISDN ELECTRONICS HAVE**
16 **CHANGED SINCE THE MISSOURI COMMISSION ADOPTED ISDN**
17 **LOOP PRICES FOR SWBT. HAVE YOU CONSIDERED WHETHER**
18 **OTHER FACTORS WOULD LIKELY OFFSET THE EFFECT OF THE**
19 **ISDN ELECTRONICS PRICE DECREASES?**

³³ Smallwood Deposition, TR _____.

³⁴ Smallwood Deposition, TR _____.

1 A. Yes, I have. Given the methodology that the Missouri Commission adopted to
2 calculated unbundled loop costs generally and ISDN loop costs specifically, I
3 believe that the primary other factor that would have changed is the economic
4 breakpoint for the use of fiber vs. copper feeder. As the Staff report attached to
5 the Missouri order adopting the ISDN prices indicates, *** **HIGHLY**

6 **CONFIDENTIAL** [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]

10 **END HIGHLY CONFIDENTIAL** *** Thus, if
11 anything, a consideration of the other aspects of ISDN loop costs should result in
12 even greater reductions in the total forward-looking costs of an ISDN loop than
13 the reductions in the electronics price alone would suggest.

14 **Q. AT PAGES 13-14 OF HIS REBUTTAL, MR. LATHAM PURPORTS TO**
15 **SHOW THAT YOUR ISDN PRICE SQUEEZE ANALYSIS WAS BASED**
16 **ON A "MISUNDERSTANDING OF THE SWBT TARIFF." DOES HE**
17 **ESTABLISH THAT CLAIM?**

18 A. No. Mr. Latham fails to show that a squeeze actually does not exist in any or in
19 all combinations of SWBT's retail ISDN pricing. As I point out in my direct
20 testimony, my analysis was as simplified as possible and did not consider other
21 SWBT costs to provide ISDN or the other costs such as collocation, usage, cross
22 connection and transport that a competitor would incur. Mr. Latham does

1 accurately reflect that I used an extreme example to make my point and that some
2 additional margin exists given SWBT's prices for more common ISDN
3 applications. He makes no attempt to show that this additional margin is
4 sufficient to recover all of the relevant costs (including all costs for the
5 competitively provided portions of the ISDN service as well as collocation costs,
6 *etc.*), and eliminate a price squeeze.

7 **Q. AT PAGE 14 OF HIS REBUTTAL, MR. CLARK SUGGESTS THAT**
8 **YOUR SUGGESTION FOR A REASONABLE ISDN LOOP INCREMENT,**
9 **WHICH IS BASED ON FINDINGS IN OTHER STATES, IS NOT**
10 **APPROPRIATE FOR MISSOURI. PLEASE COMMENT.**

11 **A.** Given that Mr. Clark's conclusion is based on discussions with staff from two
12 other Commissions, who suggested that the ISDN loop rates in their states "do not
13 cover all the components necessary to provide ISDN services," I am concerned
14 that my direct testimony must not have been sufficiently clear to enable a proper
15 comparison. I still believe, however, that the price comparisons in my direct
16 testimony are appropriate and include all of the electronics investment necessary
17 to deliver a functioning unbundled ISDN loop. Indeed, it was my intention to be
18 conservative in that regard by proposing a proxy based on the high end of results
19 from other jurisdictions, instead of a result closer to the average or mean.

20 **Q. WHAT IS YOUR RESPONSE TO MR. CLARK'S SUGGESTION THAT**
21 **YOUR SELECTED PRICES FOR ISDN LOOPS ARE NOT**
22 **COMPARABLE TO THE MISSOURI PRICE BECAUSE THE ADOPTED**
23 **MISSOURI PRICE INCLUDES "THE EQUIPMENT NECESSARY TO**

**PROVISION ISDN. THIS INCLUDES THE CENTRAL OFFICE
TERMINAL AND REMOTE TERMINAL.”**

A. With the exception of the Ameritech Illinois costs, I have directly examined the underlying costs supporting each of the specific pricing examples that I provided in my direct testimony, and it is my understanding that each study did include the same basic components as the Missouri study. Indeed, a loop without most of the additional equipment that Mr. Clark refers to (plus, potentially repeaters) would not support ISDN service, and would therefore be a basic unbundled loop instead of an ISDN-capable unbundled loop. Therefore, I am hard-pressed to understand what the staff at other Commissions might have suggested was missing relative to the Missouri study.

I am, however, somewhat concerned by the presence of the central office terminal on Mr. Clark's list as the incumbent's central office terminal, while necessary for the incumbent's retail ISDN service, would not be an appropriate component of an unbundled loop over which a competitor such as Covad would provide its own ISDN or ISDN-like service. Therefore, to the extent that SWBT's costs do include central office terminal costs, I believe that that fact represents another reason that the Commission should adopt the adjusted prices for the ISDN loop proposed in my direct testimony.

**Q. MR. CLARK ALSO SUGGESTS THAT COVAD PURCHASE A “CLEAN
COPPER LOOP” IF IT DOES NOT WISH TO PAY FOR THE ISDN
ELECTRONICS EQUIPMENT INCLUDED IN SWBT’S DIGITAL LOOP
PRICE. IS THAT A REALISTIC ALTERNATIVE?**

1 A. No. Covad purchases digital loops to provide IDSL-based services, which are
2 similar to ISDN services. IDSL can be provided over fiber/DLC equipment, just
3 as ISDN is provided. Covad needs to be able to purchase a digital loop that
4 includes the appropriate ISDN electronics at the DLC, not simply a bare or clean
5 copper loop. The issue is not that Covad is unwilling to pay for ISDN electronics
6 at the DLC, but rather, as Mr. Donovan has already demonstrated, that SWBT's
7 cost study includes inefficient and excessively costly ISDN electronics that do not
8 reflect the appropriate technology choice for a forward-looking cost study.

9 **VI. SWBT'S REBUTTAL TESTIMONY STILL PROVIDES NO FACTUAL**
10 **BASIS FOR ITS PROPOSED CROSS-CONNECTION CHARGES.**

11 **Q. MR. CLARK RECOMMENDS ADOPTING THE CROSS-CONNECTION**
12 **RATES THAT HAVE BEEN LITIGATED IN PREVIOUS**
13 **PROCEEDINGS. IS THAT RECOMMENDATION REASONABLE?**

14 A. I can understand how Mr. Clark's position would be reasonable from Staff's
15 perspective given that Staff has had the opportunity to review and comment on
16 the cost basis for SWBT's proposals previously. From Covad's vantage point,
17 however, the issue looks very different. It is my understanding that, even as of
18 the date that this surrebuttal testimony was developed, SWBT has failed to
19 provide cost support for its proposed non-recurring cross-connection prices to
20 Covad. SWBT has, therefore, precluded Covad from effectively challenging its
21 proposed price. Covad acknowledges Staff's representation that the proposed
22 rates for shielded cross-connects are, appropriately, comparable to the Missouri-
23 adopted rates for non-shielded cross-connects. Nonetheless, Covad has not had

1 an opportunity to challenge the cost basis for these prices. Therefore, the
2 Commission should only adopt interim cross-connect nonrecurring charges in this
3 arbitration. The Commission should direct SWBT to provide Covad with the
4 relevant cost data for both shielded and non-shielded cross-connects and provide
5 Covad with an opportunity to review those data and, if it chooses, to challenge the
6 interim prices established in this arbitration.

7 **VII. THE COMMISSION SHOULD NOT PERMIT SWBT TO ADD A**
8 **COMMON COST MARKUP TO ITS PROPOSED NONRECURRING**
9 **CHARGES IN THIS ARBITRATION.**

10 **Q. IN HIS REBUTTAL TESTIMONY (E.G., AT PAGE 3 FOR LOOP**
11 **QUALIFICATION), STAFF WITNESS MR. CLARK RECOMMENDS**
12 **THAT THE COMMISSION DISALLOW SWBT'S PROPOSED COMMON**
13 **COST MARKUP ON NONRECURRING CHARGES. WHAT IS YOUR**
14 **REACTION TO MR. CLARK'S PROPOSAL?**

15 **A.** I agree with Mr. Clark. Any common cost markup on SWBT's nonrecurring
16 charges would lead to overrecovery of SWBT's common overhead costs. I have
17 reviewed the cost study that SWBT supplied to Covad that shows the
18 development of its common cost markup factor. It is clear from that study that
19 SWBT did not include the nonrecurring costs at issue in this arbitration in the
20 denominator of the calculation that computes the requisite percentage markup
21 factor. Thus, SWBT can recover the entirety of its common costs from the
22 markup on its recurring charges alone.

1 **Q. DOES THAT CONCLUDE YOUR SURREBUTTAL TESTIMONY AT**
2 **THIS TIME?**

3 **A. Yes, it does.**

Docket No. 20226
ACI
Second Request
Information Request No. 2-25
01/25/99

2-25.

When SBC removes load coils for its own retail service requests does SBC remove the load coils on only one specific loop that will be used for that retail service?

Answer: SBC does not offer it's ADSL based services in areas that require loading (loading starts with plant that is 18,000 feet or more in length). Therefore SBC does not remove load coils for a retail service.

Responsible Person: William Deere
Regional Manager-Planning and
Engineering
Southwestern Bell Telephone Company
One Bell Plaza, Room 2312
Dallas, TX 75202

ACI 171

3-22.

When a SWBT OSP Engineer develops a work order to condition loops for SWBT's use to provide its own retail ADSL service, does that work plan typically direct modifications to SWBT's outside plant that will only affect a single wire pair? If "no," please provide an estimate of how many wire pairs are typically affected by those work orders.

Answer: In wire centers that SWBT has identified to deploy retail ADSL service, SWBT is currently identifying 50 pair binder groups (minimum) for ADSL deployment. SBC will groom (if needed) those 50 pair binder groups by removing Bridge Tap or loads if necessary. These binder groups will carry not only SWBT's ADSL service, but also CLEC ADSL service.

SWBT has offered to identify and condition binder groups in other central offices where identified by CLECs.

3-28.

Please provide a complete description of how the specific reinstall percentage for bridge taps on SWBT0115298 was developed. Please supply a complete copy of all technical documents or other supporting material that SWBT believes support the percentage.

Answer: The figure of 34%, as shown on SWBT0115298, represents the percentage of SWBT local loops that are not interfaced. An interface (i.e., Feeder Distribution Interface, or FDI) allows the feeder facility, which is the portion from the central office to the FDI, to be cross connected to the distribution facility, which is the portion from the FDI to the customer premises. If a facility is not interfaced, then bridgtaps are required to extend the feeder to the customer premises.

Attached is documentation that reflects the average percent of interface local loops as 65.4%. The inverse of this

Docket No. 20226

ACI

Third Request

Information Request No. 3-28

Page 2 of 2

02/04/99

percentage approximates the 34% figure in question.

Responsible Person: William Deere
Regional Manager-Planning and
Engineering
Southwestern Bell Telephone Company
One Bell Plaza, Room 2312
Dallas, TX 75202