

Exhibit No. _____
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Article V: Interconnection; Article VII: UNE Pricing;
Article XII: Number Portability
Witness: Steven E. Turner
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Sponsoring Party: Socket Telecom, LLC
Case No. TO-2006-0299
Date: April 6, 2006

BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

PETITION OF SOCKET TELECOM, LLC)
FOR COMPULSORY ARBITRATION OF)
INTERCONNECTION AGREEMENTS WITH) **CASE NO. TO-2006-0299**
CENTURYTEL OF MISSOURI, LLC AND)
SPECTRA COMMUNICATIONS, LLC)
PURSUANT TO SECTION 252(b)(1) OF THE)
TELECOMMUNICATIONS ACT OF 1996)

REDACTED REBUTTAL TESTIMONY OF

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TABLE OF CONTENTS

CONTENTS	PAGE
I. WITNESS INTRODUCTION	1
II. PURPOSE AND SUMMARY OF TESTIMONY.....	1
III. XDSL (ARTICLE XVIII: DPL ISSUE NOS. 2-4, 6, 9-11)	2
A. NON-STANDARD XDSL-BASED TECHNOLOGY (ARTICLE XVIII: DPL ISSUE NOS. 2-3)	2
B. XDSL SERVICE ISSUES (ARTICLE XVIII: DPL ISSUE NO. 4)	4
C. LINE CONDITIONING (ARTICLE XVIII: DPL ISSUE NO. 6)	6
D. SPECTRUM MANGEMENT (ARTICLE XVIII: DPL ISSUE NO. 10).....	8
E. PRICING (ARTICLE XVIII: DPL ISSUE NO. 11).....	8
IV. ORDERING, PROVISIONING, AND MAINTENANCE OSS (ARTICLE XIII: DPL ISSUE NO. 1).....	8
V. INTERCONNECTION (ARTICLE V: DPL ISSUE NOS. 5, 7, 12-15, 29)	10
A. ACCESS TO INTERCONNECTION (ARTICLE V: DPL ISSUE NO. 5) ...	10
B. SINGLE POINT OF INTERFACE (ARTICLE V: DPL ISSUE NOS. 7, 15)	11
C. TRUNKING EFFICIENCY (ARTICLE V: DPL ISSUE NO. 12).....	15
D. TWO-WAY TRUNK PREFERENCE (ARTICLE V: DPL ISSUE NO. 13)	17
E. SPECIFIC TRUNK LANGUAGE (ARTICLE V: DPL ISSUE NO. 14).....	18
F. ROUTING POINTS (ARTICLE V: DPL ISSUE NO. 29).....	18
VI. RATES AND CHARGES (ARTICLE VII: DPL ISSUE NO. 1)	19
A. RESPONSE TO AVERA TESTIMONY REGARDING COST ISSUES GENERALLY AND COST OF CAPITAL.....	19
B. RESPONSE TO CENTURYTEL FILL FACTOR PROPOSALS	32
C. RESPONSE TO DS1 LOOP COST STUDY	39
D. RESPONSE TO DS3 LOOP COST STUDY	47
E. DISCUSSION OF NONRECURRING COSTS.....	49
VII. NUMBER PORTABILITY (ARTICLE XII: DPL ISSUE NO. 2).....	54

I. WITNESS INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Steven E. Turner. My business address is Kaleo Consulting, 2031 Gold Leaf Parkway, Canton, Georgia 30114.

Q. ARE YOU THE SAME STEVEN E. TURNER THAT FILED DIRECT TESTIMONY IN THIS SAME PROCEEDING?

A. Yes, I am.

II. PURPOSE AND SUMMARY OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I am testifying on behalf of Socket Telecom, Inc. ("Socket Telecom") regarding several issues in its arbitration with Century Telecom, Inc. ("CenturyTel"). My Rebuttal Testimony will focus on the same topics as in my Direct Testimony. Specifically, my testimony will address the following issues: (1) DSL; (2) Ordering, Provisioning, and Maintenance OSS; (3) Interconnection; and (4) Rates and Charges. To this end, I will address the following witnesses who filed testimony on behalf of CenturyTel: William E. Avera,¹ R. Wayne Davis,² Michael L. Elford,³ Ted M. Hankins,⁴ Guy E. Miller, III,⁵ Maxine Laird Moreau,⁶ Calvin Simshaw,⁷ and Carla Wilkes.⁸

¹ Case No. TO-2006-0299, Direct Testimony of William E. Avera, Ph. D., CFA on behalf of CenturyTel of Missouri, LLC and Spectra Communications Group, LLC d/b/a CenturyTel, March 21, 2006 (hereafter referred to as "Avera Direct").

² Case No. TO-2006-0299, Direct Testimony of R. Wayne Davis on behalf of CenturyTel of Missouri, LLC and Spectra Communications Group, LLC d/b/a CenturyTel, March 21, 2006 (hereafter referred to as "Davis Direct").

³ Case No. TO-2006-0299, Direct Testimony of Michael L. Elford on behalf of CenturyTel of Missouri, LLC and Spectra Communications Group, LLC d/b/a CenturyTel, March 21, 2006 (hereafter referred to as "Elford Direct").

III. XDSL (ARTICLE XVIII: DPL ISSUE NOS. 2-4, 6, 9-11)

**A. NON-STANDARD XDSL-BASED TECHNOLOGY (ARTICLE XVIII:
DPL ISSUE NOS. 2-3)**

Q. ONE OF THE ISSUES THAT MR. ELFORD RAISES IN RELATION TO THE ALLOWANCE OF NON-STANDARD XDSL-BASED TECHNOLOGY IS SERVICE CONCERNS WITHIN CENTURYTEL'S NETWORK.⁹ COULD YOU RESPOND TO HIS TESTIMONY?

A. As I noted in my Direct Testimony, Socket Telecom's language is based directly on contract language that this Commission has already reviewed and authorized for use related to AT&T interconnection agreements in Missouri. However, I would again point out that the introduction of non-standard xDSL-based technology is not allowed if it causes any harm to CenturyTel's network. There are Liability provisions that place all of the cost burdens of using a non-standard DSL technology on the party (either CenturyTel or Socket Telecom) that incorporates the non-standard DSL technology into the network. There is similar Indemnification language in the proposed language as well. It should be

⁴ Case No. TO-2006-0299, Direct Testimony of Ted M. Elford on behalf of CenturyTel of Missouri, LLC and Spectra Communications Group, LLC d/b/a CenturyTel, March 21, 2006 (hereafter referred to as "Hankins Direct").

⁵ Case No. TO-2006-0299, Direct Testimony of Guy E. Miller, III on behalf of CenturyTel of Missouri, LLC and Spectra Communications Group, LLC d/b/a CenturyTel, March 21, 2006 (hereafter referred to as "Miller Direct").

⁶ Case No. TO-2006-0299, Direct Testimony of Maxine Laird Moreau on behalf of CenturyTel of Missouri, LLC and Spectra Communications Group, LLC d/b/a CenturyTel, March 21, 2006.

⁷ Case No. TO-2006-0299, Direct Testimony of Calvin Simshaw on behalf of CenturyTel of Missouri, LLC and Spectra Communications Group, LLC d/b/a CenturyTel, March 21, 2006 (hereafter referred to as "Simshaw Direct").

⁸ Case No. TO-2006-0299, Direct Testimony of Carla Wilkes on behalf of CenturyTel of Missouri, LLC and Spectra Communications Group, LLC d/b/a CenturyTel, March 21, 2006.

⁹ Elford Direct at 4-6.

1 noted as well that the language proposal that Socket Telecom has put forward allows for
2 CenturyTel to explore new technology options as well and protects Socket Telecom's
3 network performance from CenturyTel just as CenturyTel would be protected from
4 Socket Telecom. The reality is that with change that is occurring in the
5 telecommunications marketplace, the interconnection agreement needs to permit
6 development as long as protections are provided to CenturyTel and Socket Telecom
7 alike.

8 **Q. COULD YOU RESPOND TO MR. ELFORD'S CONCERNS REGARDING THE**
9 **LANGUAGE IN ARTICLE XVIII SECTION 4.5?**¹⁰

10 A. First, Section 4.5 generally provides that Socket Telecom has a requirement to
11 demonstrate to the Commission that "the loop technology will not significantly degrade
12 the performance of other advanced services or traditional voice band services" as a
13 condition of CenturyTel allowing for the deployment of the new technology. Mr. Elford
14 seems to acknowledge that the language in Socket Telecom's proposed Section 4.5 is
15 generally reasonable. His concern appears to be related to "timing" and yet he
16 acknowledges that there are other portions of the agreement that make clear that the
17 demonstration of the safety of the technology is required before its general deployment.¹¹

18 Nonetheless, Mr. Elford, despite his general agreement with the language of Section 4.5
19 and belief that his "timing" concerns are addressed elsewhere in agreed-to sections of
20 Article XVIII, still wants to have this section removed.

¹⁰ Elford Direct at 9-10.

¹¹ *Id.*

1 The problem with this approach is that Section 4.5 introduces several other
2 subsections: Section 4.5.1, Section 4.5.2, and Section 4.5.2.2 that are all in agreement
3 between CenturyTel and Socket Telecom. It is unnecessary, given Mr. Elford's general
4 agreement with the language in Section 4.5 and his belief that his timing concerns are
5 addressed elsewhere to remove this language from a section that has general agreement
6 already.

7 **B. XDSL SERVICE ISSUES (ARTICLE XVIII: DPL ISSUE NO. 4)**

8 **Q. MR. ELFORD TAKES ISSUE WITH THE SOCKET TELECOM PROPOSAL**
9 **REGARDING HOW TO HANDLE THE DENIAL OF AN XDSL LOOP.¹² COULD**
10 **YOU COMMENT ON HIS TESTIMONY?**

11 A. *First*, Mr. Elford does not even address one particularly important aspect of the dispute.
12 CenturyTel offers no specific timeframe in which to notify Socket Telecom of the denial
13 of Socket Telecom's order and provide information on the reason for the denial.
14 CenturyTel offers only to do so "within a reasonable time of the denial." As I noted in
15 my Direct Testimony, it is important to recognize the context in which this denial is
16 occurring. Socket Telecom has a customer to which it is attempting to provide DSL
17 service. Socket Telecom places an order with CenturyTel for access to an xDSL loop or
18 subloop while the customer is continuing to wait for service. CenturyTel then wants this
19 Commission to accept its best efforts to provide information regarding a denial of service
20 within a "reasonable" timeframe. It is simply not practical when a customer is waiting on
21 service (and Socket Telecom is waiting to determine whether it can provide service to the

¹² Elford Direct at 15-16.

1 customer or not) to have to wait for CenturyTel's (Socket Telecom's competitor) best
2 efforts to provide the information in a "reasonable" timeframe.

3 *Second*, Mr. Elford gives two examples of reasons why CenturyTel would
4 potentially reject an xDSL order that are somewhat obvious and unlikely to lead to
5 disputes: lack of facilities and a loop served behind Integrated Digital Loop Carrier
6 (IDLC). However, it is important to read Socket's proposed language for Section 4.4:
7 "If there is *any dispute* between the Parties *with respect to this Section*, CenturyTel will
8 not deny the loop (subject to Section 3.4 above), but will continue to provision loops
9 until the dispute is resolved in accordance with the Dispute Resolution procedures set
10 forth in this Agreement." Note that there must first be a dispute. If it is clear that the
11 loop is served behind IDLC, Socket Telecom recognizes that it cannot have this loop at
12 the central office. There would not be a dispute. Moreover, if there were no facilities,
13 this would not lead to a dispute either.

14 The point is that this language, which is taken straight from existing language that
15 this Commission has already reviewed and approved for AT&T, is here to govern
16 disputes where the xDSL loop could be provisioned (*i.e.*, facilities are available, but there
17 is a dispute over the provisioning of the xDSL service). Mr. Elford even acknowledges
18 that such situations could occur and that CenturyTel could provision the xDSL loops in
19 these dispute situations: "There may be instances when CenturyTel could continue to
20 provision the requested xDSL loop or subloop during the pendency of the dispute
21 resolution process, but those instances are subject to what facilities are currently

1 available in CenturyTel's network and what is technically feasible."¹³ In these cases, the
2 language ultimately protects the consumer so that they are not waiting for service while a
3 laborious Dispute Resolution proceeding is taking place.

4 **C. LINE CONDITIONING (ARTICLE XVIII: DPL ISSUE NO. 6)**

5 **Q. MR. ELFORD ADDRESSES THE APPLICATION OF CONDITIONING**
6 **CHARGES BELOW 17,500 FEET.¹⁴ IS IT YOUR UNDERSTANDING THAT**
7 **CENTURYTEL AND SOCKET TELECOM HAVE REACHED AGREEMENT**
8 **ON THIS ISSUE?**

9 A. Yes. As such, I will not address the specific issues raised by Mr. Elford regarding the
10 conditioning charge and its applicability to loops of less than 17,500 feet.

11 **Q. DOES THIS AGREEMENT FULL SETTLE DPL ISSUE NO. 6?**

12 A. No. There continues to be a dispute regarding Section 6.6. This section addresses when
13 Socket Telecom needs "additional conditioning for the removal of excessive bridged tap,
14 load coils and/or repeaters" on the loop or subloop. As noted in my Direct Testimony,
15 the language that Socket Telecom proposed is precisely that which already exists in the
16 M2A Successor Agreement. Socket Telecom is not attempting to avoid paying for any
17 applicable conditioning charges. There is already language identified in Sections 6.2 and
18 6.3 which govern the applicability of additional conditioning charges. However, Socket
19 Telecom has already paid a service order charge for the xDSL-capable loop and subloop
20 and simply should not have to pay an additional service order charge to have the loop
21 work properly for DSL service – one service order should be sufficient for CenturyTel.

¹³ Elford Direct at 16.

¹⁴ Elford Direct at 16-18.

1 Further, notwithstanding that Sections 6.2 and 6.3 govern the applicability of
2 conditioning charges, CenturyTel has sought to add language that “additional ...
3 conditioning charges may apply.” The reality is that Sections 6.2 and 6.3 already govern
4 whether additional conditioning charges apply. There is no reason for there to be a
5 separate new phrase added to the language that the Commission has already reviewed
6 incorporating the additional charges. The bottom line is that the Commission should
7 simply retain the language that it has already reviewed and approved for use in the
8 provisioning of DSL services.

9 **Q. COULD YOU ADDRESS THE FINAL CONCERN WITH DPL ISSUE NO. 6 –**
10 **THE SHIELDED CROSS-CONNECT?**

11 A. Yes. I believe Mr. Elford misunderstands the nature of the dispute on this issue and why
12 it is so important to Socket Telecom that CenturyTel’s language be rejected. Presently,
13 there is no price proposed by CenturyTel for a shielded cross-connect. As such, if
14 CenturyTel’s language referencing a price is incorporated into Section 6.7, yet another
15 dispute will be created in that CenturyTel will be able to claim that it cannot provide
16 shielded cross-connects in that no price exists.

17 Instead, Socket Telecom has proposed its language that does not specify the rate
18 element that would apply so that the current rate element for a general cross-connect
19 would apply. Mr. Elford seems to believe that Socket Telecom is just trying to get the
20 shielded cross-connect at a below-cost rate.¹⁵ The reality is that CenturyTel has never
21 produced a cost study or a rate for this element. Moreover, CenturyTel’s rate for a

¹⁵ Elford Direct at 20-21.

1 regular cross-connect is actually higher than AT&T charges even for a shielded cross-
2 connect. My point, however, is that without a rate element or rate proposal from
3 CenturyTel, it is unreasonable to add language citing to a rate, only to then lead to a
4 dispute about what rate would apply.

5 **D. SPECTRUM MANGEMENT (ARTICLE XVIII: DPL ISSUE NO. 10)**

6 **Q. IS IT YOUR UNDERSTANDING THAT DPL ISSUE NO. 10 HAS BEEN**
7 **RESOLVED BETWEEN CENTURYTEL AND SOCKET TELECOM?**

8 A. Yes. It is my understanding that the sides have reached an agreement on this issue. As
9 such, I will not be addressing CenturyTel's testimony on issues related to this DPL issue.

10 **E. PRICING (ARTICLE XVIII: DPL ISSUE NO. 11)**

11 **Q. HAS THE ISSUE OF NON-DISCRIMINATORY ACCESS TO "CLEAN" LOOPS**
12 **AND SUBLOOPS BEEN RESOLVED?**

13 A. Yes. It is my understanding that the sides have reached an agreement on this issue.

14 **IV. ORDERING, PROVISIONING, AND MAINTENANCE OSS**
15 **(ARTICLE XIII: DPL ISSUE NO. 1)**

16 **Q. SEVERAL WITNESSES ADDRESS THE OSS ISSUE ON BEHALF OF**
17 **CENTURYTEL. COULD YOU PROVIDE THE COMMISSION WITH AN**
18 **OVERALL SENSE OF YOUR RESPONSE TO THEM?**

19 A. Yes. There were several witnesses that address the OSS issue on behalf of CenturyTel:
20 Mr. Elford, Ms. Hankins, Mr. Miller, Ms. Moreau, and Ms. Wilkes. The bottom line with
21 all of their testimony is that they do not believe that CenturyTel should be required to
22 provide an electronic OSS to CLECs in Missouri. My Direct Testimony was likewise
23 particularly straightforward. The federal Telecommunications Act in § 251(c) and the
24 implementing rules established by the FCC require that CenturyTel offer efficient and
25 effective provisioning of wholesale facilities. A critical part of this efficiency is to have

1 electronic OSS established between itself and the CLECs with whom CenturyTel
2 interfaces. The Article that Socket Telecom has written establishes reasonable terms and
3 conditions governing the electronic interface between Socket Telecom and CenturyTel
4 for ordering and provisioning systems.

5 Moreover, as I explained in my Direct Testimony, when CenturyTel sought
6 Commission approval for the transfer of exchanges from Verizon, CenturyTel filed sworn
7 testimony stating that an automated electronic interface for CLECs was in development
8 and the functionality would be available within nine months of the close of the
9 transaction. This date has come and gone with no delivery of an electronic OSS.

10 The bottom line is that the federal Telecommunications Act, the FCC's
11 implementing regulations, and the commitments made by CenturyTel during its
12 acquisition of the Verizon properties in Missouri all lead to a requirement that
13 CenturyTel deliver an electronic OSS in Missouri. The testimony that CenturyTel has
14 put forward clearly delineates that it will be challenging to perform this work, but it is
15 still a requirement that CenturyTel comply with.

16 **Q. IS SOCKET TELECOM'S RELIANCE ON THE LANGUAGE FROM THE M2A**
17 **FOR ITS PROPOSED OSS LANGUAGE AN ATTEMPT TO HAVE**
18 **CENTURYTEL RECREATE THE AT&T OSS ENVIRONMENT?**

19 A. Certainly not. Socket Telecom is simply attempting to find contract language that would
20 obligate CenturyTel to implement an electronic OSS consistent with the requirements of
21 the Act and FCC implementing regulations but also consistent with the operating
22 environment within CenturyTel. Ultimately, however, the Commission should not allow
23 CenturyTel to shirk its responsibilities to provide efficient interconnection with Socket

1 Telecom and other CLECs in Missouri. Doing so would prevent Missouri consumers
2 from truly benefiting from competition in CenturyTel's territory as customers in AT&T
3 and Verizon's territories are benefiting presently.

4 **V. INTERCONNECTION (ARTICLE V: DPL ISSUE NOS. 5, 7, 12-15, 29)**

5 **A. ACCESS TO INTERCONNECTION (ARTICLE V: DPL ISSUE NO. 5)**

6 **Q. MR. MILLER BELIEVES THAT SOCKET TELECOM IS SEEKING "THE**
7 **UNILATERAL RIGHT TO DETERMINE THE NEED AND THE SIZE OF ALL**
8 **FACILITIES WITHOUT CENTURYTEL'S CONCURRENCE OR INPUT."**¹⁶ **IS**
9 **THIS REALLY THE CASE?**

10 A. Not at all. The language that Socket Telecom proposes, however, does address a series
11 of practical concerns whereby CenturyTel has not worked collaboratively with Socket
12 Telecom to establish interconnection and trunking between the two networks. I
13 described this issue in my Direct Testimony and do not want to be redundant. Briefly,
14 Socket Telecom is routinely running into situations where CenturyTel is denying Socket
15 Telecom with interconnection facilities. The language that Socket Telecom has
16 incorporated into Article V addresses the nondiscriminatory aspect of interconnection.
17 Specifically, Socket Telecom has incorporated language into Section 2.4, Section 2.5.1,
18 and Section 2.5.2 to more clearly define the terms and conditions upon which
19 interconnection facilities will be made available. The clarity in the contract that Socket
20 Telecom seeks is essential to avoid some of the conflicts that have been arising over
21 access to interconnection facilities. Socket Telecom is not trying to act "unilaterally"
22 with respect to interconnection. But Socket Telecom does need CenturyTel to work with

¹⁶ Miller Direct at 16.

1 Socket Telecom on the planning of interconnection and making access to facilities
2 available. And if CenturyTel will not do this, Socket Telecom still needs some
3 contractual right to obtain interconnection facilities. Otherwise, CenturyTel could use its
4 power and position to effectively stop Socket Telecom's ability to exchange traffic and
5 attract new customers.

6 **B. SINGLE POINT OF INTERFACE (ARTICLE V: DPL ISSUE NOS. 7, 15)**

7 **Q. MR. SIMSHAW TESTIFIES EXTENSIVELY ON THE ISSUE OF A SINGLE**
8 **POINT OF INTERFACE.¹⁷ HAS HIS TESTIMONY MODIFIED SOCKET**
9 **TELECOM'S PROPOSAL IN ANY WAY?**

10 A. It is my understanding that Socket Telecom has reduced the threshold upon which a
11 second POI would be established to an OC3 level rather than the current proposal of an
12 OC12 level. However, I would again point out that the OC12 level was established by
13 this Commission through arbitrations involving CLECs and AT&T. The concept of a
14 Single POI is incorporated in the M2A Successor Agreement because this has been the
15 consistent determination of this Commission.

16 **Q. MR. SIMSHAW¹⁸ AND MR. MILLER¹⁹ TAKE ISSUE WITH TRYING TO**
17 **REQUIRE CENTURYTEL TO CONFORM TO THE RULES THAT HAVE BEEN**
18 **ESTABLISHED FOR AT&T. COULD YOU COMMENT ON HIS CONCERN?**

19 A. First of all, I do not believe that the Commission when it was dealing with the numerous
20 interconnection issues with AT&T (SBC) was attempting to devise a set of rules that
21 were only applicable to AT&T. As someone who participated in these interconnection

¹⁷ Simshaw Direct at 13-35.

¹⁸ Simshaw Direct at 32-33.

¹⁹ Miller Direct at 10-11.

1 issues directly, interconnection terms and conditions were worked out by reviewing the
2 FCC's *First Report and Order* and attempting to devise interconnection language that
3 fairly implemented the FCC's rules and the federal Telecommunications Act. In other
4 words, applying the interconnection language that this Commission established for
5 AT&T to CenturyTel is not unfairly targeting CenturyTel with the requirements of a
6 larger company. Instead, CenturyTel is simply being held to the same standard (the
7 FCC's regulations implementing the federal Telecommunications Act) that any other
8 incumbent carrier operating in Missouri would be expected to meet.

9 **Q. MR. SIMSHAW BELIEVES THAT THE SINGLE POI PLACES AN UNDUE**
10 **BURDEN ON CENTURYTEL.²⁰ DO YOU AGREE?**

11 A. No. The FCC actually perceived the issue of interconnection burdens in completely the
12 other direction as found in the *First Report and Order*.

13 Because an incumbent LEC currently serves virtually all
14 subscribers served in its local serving area, an incumbent LEC has
15 little economic incentive to assist new entrants in their efforts to
16 secure a greater share of that market. An incumbent LEC also has
17 the ability to act on its incentive to secure a greater share of that
18 market. *An incumbent LEC also has the ability to act on its*
19 *incentive to discourage entry and robust competition by not*
20 *interconnecting its network with the new entrant's network or by*
21 *insisting on supracompetitive prices or other unreasonable*
22 *conditions for terminating calls from the entrant's customers to the*
23 *incumbent LEC's subscribers.²¹*

²⁰ Simshaw Direct at 13-14.

²¹ Before the Federal Communications Commission, FCC 96-325, *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket Nos. 96-98 and 95-185, Released: August 8, 1996, ¶10. (Emphasis added.) (Hereafter referred to as "*First Report and Order*.")

1 Clearly from the information found in Dr. Avera's testimony regarding the extremely
2 limited entry by CLECs into CenturyTel's territory, it is quite possible that CenturyTel is
3 already "act[ing] on its incentive to discourage entry and robust competition" in this
4 territory.

5 Nonetheless, while I do not want to quote again the lengthy section that I placed
6 in my Direct Testimony related to the FCC's view on interconnection, I would point out
7 that the FCC interpreted the Act to require that the incumbent LEC make an
8 "accommodation of interconnection" through a "limited build-out of facilities."²² In
9 other words, the FCC fully recognized that when new entrants came on the scene that
10 there would be a requirement that the incumbent LEC invest in its network to allow for
11 interconnection to occur.

12 **Q. MR. SIMSHAW SPEAKS AT LENGTH ABOUT THE NEED FOR ADDITIONAL**
13 **FACILITIES TO HANDLE THE INTERCONNECTION REQUIREMENTS**
14 **PLACED ON IT WITH A SINGLE POI.²³ IS THIS THE "LIMITED BUILD-OUT**
15 **OF FACILITIES" TO WHICH YOU REFER?**

16 **A.** Yes. Mr. Simshaw provides numerous diagrams and references to trunking facilities that
17 it will need to provide for interconnection between itself and other carriers. The reality is
18 that when all of the local traffic stays within your own network, it is possible to avoid a
19 degree of inter-switch trunking. However, with competition, calls that would have
20 formally been handled within one CenturyTel switch now must switch from the
21 CenturyTel switch to a Socket Telecom switch. Moreover, because of the

²² First Report and Order, ¶553.

²³ Simshaw Direct at 15-25.

1 interconnection rules, Socket Telecom may be interconnected at a CenturyTel tandem
2 thereby requiring the call to switch between the CenturyTel end office and the
3 CenturyTel tandem. If these trunks are not sized sufficiently, calls will be blocked. As
4 such, it is quite likely that CenturyTel would be required to make a “limited build-out of
5 facilities.”

6 **Q. IS CENTURYTEL THE ONLY CARRIER INVESTING IN ITS NETWORK TO**
7 **BRING ABOUT COMPETITION?**

8 A. You may think so from reading CenturyTel’s testimony. However, consider that Socket
9 Telecom has also made a considerable investment in facilities (*e.g.*, switching,
10 collocation, transport, *etc.*) in Missouri to bring the benefits of competition to customers.
11 This investment was made without having the benefit that CenturyTel has of having
12 virtually 100 percent of the market. Nonetheless, just as CenturyTel is required to invest
13 on its side of the POI to bring about competition, Socket Telecom is likewise investing
14 on its side of the POI to bring competition to consumers in CenturyTel’s territory in
15 Missouri. Certainly CenturyTel does not like this situation, but it is the nature of
16 providing for a competitive environment in telecommunications.

17 **Q. IS MR. SIMSHAW’S PORTRAYAL OF THE COST CAUSER FOR**
18 **INTERCONNECTION ACCURATE?**

19 A. No. Mr. Simshaw portrays Socket Telecom as the cost causer for interconnection
20 because as he states: “It is Socket’s business plan and service offerings that necessitate
21 augmenting capacity or deploying additional facilities.”²⁴ Effectively, Mr. Simshaw’s
22 position is that since Socket Telecom has offered a service that causes CenturyTel

1 customers to call Socket Telecom customers then Socket Telecom should pay for these
2 costs. Of course, CenturyTel does not address the other possibility that Socket Telecom
3 customers could want to (and do) call CenturyTel customers and therefore CenturyTel
4 would need to pay for Socket Telecom's costs. The reason this is absurd is that the FCC
5 established a reciprocal compensation system that was exactly backwards from this
6 approach. Whoever originates a call is responsible for paying the cost for the termination
7 of the call. Mr. Simshaw is effectively trying to turn this arrangement around on Socket
8 Telecom and make Socket Telecom pay for calls that originate on CenturyTel's network.
9 This is not permitted under FCC rules as they interpret the Federal Telecommunications
10 Act.

11 **Q. IF SOCKET TELECOM HAD NOT PROPOSED BILL AND KEEP, WHAT**
12 **WOULD BE THE RECIPROCAL COMPENSATION ARRANGEMENT?**

13 A. For calls that originate on CenturyTel's network, CenturyTel would be responsible for
14 paying terminating compensation to Socket Telecom.

15 **C. TRUNKING EFFICIENCY (ARTICLE V: DPL ISSUE NO. 12)**

16 **Q. DID MR. MILLER'S TESTIMONY ALTER YOUR VIEWS IN ANY WAY**
17 **REGARDING THE NEED FOR ARTICLE V SECTION 11.1?²⁵**

18 A. No. As a brief reminder, Section 11.1 simply requires that: "CenturyTel will not impose
19 any restrictions on Socket that are not imposed on its own traffic with respect to trunking
20 and routing options afforded to Socket." Ultimately, this language is just attempting to
21 ensure nondiscriminatory treatment of traffic. Mr. Miller suggests at one point that he

²⁴ Simshaw Direct at 26.

1 would be fine with accepting the language as long as it was reciprocal in nature – that
2 Socket would not “impose any restrictions on [CenturyTel] that are not imposed on its
3 own traffic with respect to trunking and routing options afforded to [CenturyTel].”
4 Perhaps Mr. Miller has forgotten who the incumbent with 99.5 percent of the market is
5 and who the CLEC is. The reality is that CenturyTel has the power to restrict Socket
6 Telecom’s ability to complete calls and therefore the need for nondiscrimination
7 language is particularly needed for the new entrant.

8 **Q. YOU DISCUSSED IN YOUR DIRECT TESTIMONY AS TO WHY IT IS**
9 **IMPORTANT THAT A REQUIREMENT FOR AGREEMENT BEFORE**
10 **TRUNKING AND TRAFFIC EXCHANGE BEGINS IS IMPORTANT. DID**
11 **ANYTHING SUGGESTED BY MR. MILLER CHANGE YOUR OPINION?**²⁵

12 A. No. Mr. Miller indicates that no information had been provided by Socket Telecom as to
13 why this was important. I believe my Direct Testimony as well as testimony offered by
14 Mr. Kohly of Socket Telecom provide the basis for why this provision is important to
15 Socket Telecom. Moreover, the fact that Mr. Miller may have had negative experiences
16 with another CLEC does not change the particulars of how the interconnection issues
17 have been dealt with directly between CenturyTel and Socket Telecom.

²⁵ Miller Direct at 36-37.

²⁶ Miller Direct at 37.

D. TWO-WAY TRUNK PREFERENCE (ARTICLE V: DPL ISSUE NO. 13)

Q. COULD YOU COMMENT ON MR. MILLER'S RELUCTANCE REGARDING 2-WAY TRUNKING?²⁷

A. Mr. Miller's own testimony does not make sense. He acknowledges that with 2-way trunking the need for the number of trunks could be reduced. This would allow both sides to reduce the investment needed for interconnection. In my experience with AT&T, all of the trunking has moved to 2-way trunking because this is more efficient.

Referencing back to the quotes from the FCC *First Report and Order* earlier, if a form of interconnection is technically feasible, it should be made available to the CLEC. In addition, 47 C.F.R. § 51.305(f) requires that, "[i]f technically feasible, an incumbent LEC shall provide two-way trunking upon request." Socket Telecom has simply incorporated these thoughts into the interconnection agreement to utilize two-way trunking where it is available. The use of this form of trunking should not be held hostage by CenturyTel's willingness to make it available or not even to where CenturyTel is already using two-way trunking.

Q. MR. MILLER CONTINUES TO SEEK TO LIMIT THE INTERCONNECTION TRUNKS TO CENTURYTEL'S DEFINITION OF LOCAL TRAFFIC.²⁸ **COULD YOU COMMENT ON HIS TESTIMONY?**

A. As I explained in my Direct Testimony, CenturyTel's position as explained by Mr. Miller is simply inconsistent with the provisions for interconnection of traffic as per the Federal

²⁷ Miller Direct at 38-41.

²⁸ Miller Direct at 42-43.

1 Telecommunications Act and the FCC's rules regarding incumbent LEC interconnection
2 obligations.

3 **E. SPECIFIC TRUNK LANGUAGE (ARTICLE V: DPL ISSUE NO. 14)**

4 **Q. HAS MR. MILLER TO YOUR KNOWLEDGE EVER PRODUCED EVIDENCE**
5 **OF "PHANTOM TRAFFIC, ARBITRAGE, AND ACCESS CHARGE**
6 **AVOIDANCE" AGAINST SOCKET TELECOM?**

7 A. To my understanding, Mr. Miller has never produced such information.

8 **Q. IS NOT THE LANGUAGE THAT SOCKET TELECOM PROPOSES RELATED**
9 **TO DPL ISSUE NO. 14 MUCH MORE SPECIFIC THAN THAT PROPOSED BY**
10 **CENTURYTEL?**

11 A. Yes. The language that Socket Telecom has incorporated into its proposal is taken from
12 the trunking language that exists in the M2A Successor Agreement. In other words, this
13 level of detail has proven to be useful in establishing interconnection between AT&T and
14 the numerous CLECs operating in its territory in Missouri. There is good reason to
15 believe that incorporating this type of detail into the CenturyTel-Socket Telecom
16 interconnection agreement would also be beneficial.

17 **F. ROUTING POINTS (ARTICLE V: DPL ISSUE NO. 29)**

18 **Q. IS IT YOUR UNDERSTANDING THAT CENTURYTEL HAS DROPPED THIS**
19 **ISSUE WITH RESPECT TO ROUTING POINTS?²⁹**

20 A. Yes. As such, I will not address CenturyTel's testimony regarding this issue.

²⁹ Miller Direct at 61-64.

1 **VI. RATES AND CHARGES (ARTICLE VII: DPL ISSUE NO. 1)**

2 **A. RESPONSE TO AVERA TESTIMONY REGARDING COST ISSUES**
3 **GENERALLY AND COST OF CAPITAL**

4 **Q. DR. AVERA POINTS TO NUMEROUS STATISTICS TO CLAIM THAT THE**
5 **COSTS FOR CENTURYTEL SHOULD BE SIGNIFICANTLY HIGHER THAN**
6 **THOSE FOR LARGER CARRIERS SUCH AS AT&T OR VERIZON.³⁰ COULD**
7 **YOU COMMENT ON HIS CLAIMS?**

8 A. There are two fundamental reasons why Dr. Avera's assessment is fundamentally
9 irrelevant to the issues at hand that I will address. *First*, the primary statistics that Dr.
10 Avera relies upon point only to the possibility that CenturyTel's *recurring* costs should
11 be higher than those of AT&T and Verizon. I emphasize *recurring* costs in that the
12 statistics that Dr. Avera identifies are related to investment in network plant which drives
13 recurring costs. Specifically, Dr. Avera claims that CenturyTel's net investment per line
14 is \$1453.³¹ He does not indicate if this information is Missouri-specific or not.
15 Nevertheless, this type of statistic is related to the investment in plant which is ultimately
16 converted into *recurring* rates. He goes on to further claim that this net investment per
17 line "exceeds that of AT&T/SBC by 46% and is approximately 2.8 times that of
18 Verizon."³² Again, Dr. Average does not indicate whether these investment differences
19 are compared to AT&T and Verizon national network or are specific to Missouri. Given
20 the gap with Verizon in particular, I would anticipate that the differences are based on
21 national statistics and national statistics would not have any particular bearing on rates in

³⁰ Avera Direct at 4-9.

³¹ Avera Direct at 6.

³² *Id.*

1 CenturyTel's territory in Missouri. Regardless, these types of comparisons are indicative
2 of differences that would relate to *recurring* rates.

3 **Q. HAVE NOT CENTURYTEL AND SOCKET TELECOM AGREED ON**
4 **VIRTUALLY ALL OF THE RECURRING RATES AT ISSUE IN THIS**
5 **PROCEEDING?**

6 A. Actually yes, and that is the point. For the vast majority of *recurring* rates, CenturyTel
7 agreed to utilize the Missouri-specific rates that were developed for the Verizon territory
8 in Missouri. In other words, while Dr. Avera spends a great deal of effort explaining
9 why CenturyTel's rates should be significantly higher than AT&T and Verizon, the
10 reality is that CenturyTel has actually proposed to use the Verizon-Missouri rates for the
11 vast majority of the recurring rates in this proceeding. As such, the statistical differences
12 that Dr. Avera points out are irrelevant in the current proceeding.

13 **Q. YOU INDICATED THAT THERE WAS A SECOND ASPECT TO DR. AVERA'S**
14 **USE OF STATISTICS THAT YOU FOUND PARTICULARLY MISLEADING?**

15 A. Yes. *Second*, the very statistics that Dr. Avera utilizes when comparing investments
16 between CenturyTel and AT&T only illustrate why the recurring rates in Missouri for
17 Verizon are higher than AT&T. Again, Dr. Avera indicated that the average net
18 investment per line for CenturyTel was 46 percent higher than AT&T. The table below
19 summarizes the recurring rates for 2-Wire Analog Loops between AT&T and
20 CenturyTel. I have used 2-Wire Analog Loops because they most reflect the geographic
21 differences between the two companies in that they extend out to all of the small
22 businesses and residences in the territories served by the respective companies.

	AT&T	CenturyTel	% Increase
Zone 1	\$12.71	\$19.14	51%
Zone 2	\$16.41	\$29.05	77%
Zone 3	\$18.64	\$48.39	160%
Zone 4	\$19.74	\$53.84	173%

The Zones are listed from most dense to most rural. However, the CenturyTel-Socket Telecom agreed rates are dramatically higher than the statistical support for network investment per line difference between AT&T and CenturyTel (46 percent). In other words, on an average basis, it is quite likely that the rates for CenturyTel should be lower. But importantly, they are agreed-to between CenturyTel and Socket Telecom largely drawing into question why Dr. Avera's testimony is relevant at all.

Q. DID NOT CENTURYTEL FILE COST STUDIES IN THIS COST PROCEEDING UPON WHICH IT IS RELYING?

A. Yes. Per my review of CenturyTel's cost filing and testimony, the only rates for which CenturyTel has sponsored a cost study is the DS1 Loop and DS3 Loop. As such, to the extent that Dr. Avera's testimony regarding geographic density differences can be given any credence, it would have to be for these categories of loops since these are the only elements for which CenturyTel offered a cost study. Nonetheless, as an example, for the DS1 Loop, the difference between CenturyTel and AT&T are staggeringly greater than what Dr. Avera's testimony would even begin to support:

	AT&T	CenturyTel (Cost Study)
Zone 1	\$91.06	\$438.72
Zone 2	\$95.45	\$417.69
Zone 3	\$97.10	\$429.94
Zone 4	\$91.25	\$406.48

1 Specifically, CenturyTel wants this Commission to authorize DS1 Loop rates that are
2 approximately 350 percent higher than those in effect for SBC. While I would grant that
3 the density of customers for AT&T in Missouri is greater than that of CenturyTel, Dr.
4 Avera's own statistics only support an investment per line different of 46 percent – not
5 the 350 percent that is reflected in the CenturyTel DS1 Loop proposal.

6 Moreover, Zone 3 – the most rural rate for AT&T compared to the most urban of
7 CenturyTel's DS1 Loop rates still shows CenturyTel to be 319 percent higher than
8 AT&T. AT&T's rate applies in towns such as Marble Hill, Glasgow, and Linn whereas
9 the urban rate for CenturyTel applies in Columbia and Branson. Certainly, given the size
10 and growth profiles of Columbia and Branson, there is no reason to believe that
11 CenturyTel's costs would be 319 percent higher than AT&T's costs to provide a DS1 in
12 Marble Hill, Glasgow, or Linn.

13 **Q. ULTIMATELY DR. AVERA CLAIMS THAT YOU ARE IMPROPERLY USING**
14 **RECURRING RATES FROM MPSC DOCKET NO. TO-2005-0336.³³ IS THIS**
15 **CORRECT?**

16 **A.** Not at all. This is the general issue I have with Dr. Avera's testimony overall. First, I
17 believe it is important to see Dr. Avera's statement in context.

18 CenturyTel's lower customer density and greater investment per
19 access line implies higher costs to provide local exchange services;
20 a reality that is ignored under Socket's proposal to use rates for
21 certain UNE services determined by the MPSC in Docket No. TO-
22 2005-0336.³⁴

³³ Avera Direct at 8.

³⁴ *Id.*

1 As I have noted above, the reference to “lower customer density and greater investment
2 per access line” must, by the nature of cost studies, have a direct relationship to recurring
3 rates. It is in recurring rate elements where investment differences would be reflected in
4 varying levels of recurring costs as these investments are recovered over time. However,
5 as I have already noted above, with the exception of the DS1 and DS3 Loops, all of the
6 recurring rates that are incorporated in the Socket Telecom proposal reflect the use of the
7 Verizon recurring rates that were arbitrated in Missouri. Moreover, even for the DS1 and
8 DS3 Loop rate proposals, Socket Telecom relied on the use of CenturyTel’s Special
9 Access Tariffs for the development of these rates. None of the recurring rates that are
10 included in Socket Telecom’s proposal are based on MPSC Docket No. TO-2005-0336.
11 Further, the vast majority of the recurring rate elements are in agreement between Socket
12 Telecom and CenturyTel as CenturyTel has likewise proposed the use of the Verizon
13 recurring rates with the exception of the DS1 and DS3 Loop rate elements.

14 **Q. DR. AVERA ALSO CLAIMS THAT CENTURYTEL’S COST STUDIES MEET**
15 **THE THREE GUIDELINES FOR COST STUDIES SET OUT IN THE VIRGINIA**
16 **UNE ARBITRATION.³⁵ COULD YOU COMMENT ON HIS ASSERTION?**

17 A. I participated in the Virginia UNE Arbitration and am very familiar with the FCC’s
18 statements regarding the three guidelines for cost studies. CenturyTel’s cost study
19 submission in this proceeding does not even begin to meet the criteria set out by the FCC.

20 The FCC noted that “any cost model we use should be consistent with TELRIC
21 pricing principles (*i.e.*, it should be designed to calculate the cost of a network that uses

³⁵ Avera Direct at 14-15.

1 the most efficient technology available, taking as a given the existing incumbent LEC
2 wire centers).”³⁶ This is a significant first requirement for a cost study. TELRIC – or
3 Total Element Long Run Increment Cost – requires that the model develop the “cost of a
4 network” that is designed to support the total demand (the “T” in TELRIC) for all
5 elements on that network. In other words, a TELRIC cost model would require that the
6 loop model, for example, would evaluate the cost to provide a network to serve all of the
7 loops in the network – not just one class of loop or a subset of the loops. Moreover,
8 TELRIC requires, as the FCC notes, that the cost model should use the “most efficient
9 technology available.” For a loop model (which is the only cost model CenturyTel
10 purports to offer in this proceeding), the model would need to evaluate the available most
11 efficient technologies and select the most cost effective one to serve the loop in question.
12 In the *Virginia Arbitration Order* that Mr. Avera references, the FCC selected the
13 Modified Synthesis Model which effectively selected on a cable route-by-cable route
14 basis the most efficient technology to use in that cable route. The model would select
15 whether fiber-fed digital loop carrier or copper should be used based on engineering
16 efficiency – not what was in place presently in the incumbent network. Finally, and this
17 issue is tied to the selection of the “most efficient technology available,” the given that is
18 to be utilized is the “incumbent LEC wire centers.” In other words, the FCC requires in a
19 TELRIC cost model that the existing locations of the wire centers be maintained, but the

³⁶ *Memorandum and Order*, DA 03-2738, CC Docket Nos. 00-218 & 00-251 (August 29, 2003) (*Virginia Arbitration Order*) at ¶48.

1 cable routes and methods for reaching the end user customers with loops should be
2 designed with efficient, forward-looking techniques.

3 **Q. WITH REGARD TO THIS FIRST FCC COST MODEL PRINCIPLE, DID YOU**
4 **FIND THAT THE CENTURYTEL COST MODEL COMPLIED WITH THIS**
5 **APPROACH?**

6 A. Absolutely not. CenturyTel has not modeled an efficient, forward-looking loop network
7 at all that takes into account all of the demand for loops on that network. The type of
8 model that the FCC selected in the *Virginia Arbitration Order* took into account efficient,
9 forward-looking engineering practices for the various aspects of loop engineering.
10 Specifically, the Modified Synthesis Model implemented engineering rules related to
11 distribution copper cable placement, feeder copper cable placement, fiber placement, and
12 DLC placement with all of the appropriate engineering sizing routines that allow the cost
13 model to approximate what an engineer would do if engineering to the total demand for
14 loops in a geographic territory.

15 In no way does the model that CenturyTel proposed do any of these things,
16 contrary to Dr. Avera's assertions. It does not "model" the engineering of loops
17 addressing total demand at all. Instead, CenturyTel's loop model appears to develop an
18 average cable distance to a group of study lines. For this group of study lines, the model
19 does not calculate costs based on where the customers are actually at. Instead, the model
20 assumes an even distribution of customers spread across four feeder routes leaving from
21 each central office with an equal number of customers on each of the feeder routes.
22 Moreover, for these feeder routes, the model hard-codes the distances associated with
23 larger feeder cables regardless of the distance to the actual location of the customers.

1 While there are many other hard-coded (and thereby non-modeled) calculations in the
2 model, the last one that I will note is that CenturyTel hard-codes the placement of the
3 DLC at 24,000 feet from the central office. In my experience with this issue in many
4 other loop cost proceedings, the economic point for placing DLC is generally much
5 closer to the central office. Given that the FCC requires that the “most efficient
6 technology available” should be used, artificially placing the DLC at an extraordinary
7 distance from the central office could lead to overstated costs. At a minimum, hard-
8 coding this selection will not allow for the modeling of the “most efficient technology
9 available.”

10 The bottom line is that the reality of CenturyTel’s cost model filing falls far short
11 of the Commission’s requirements for the use of a TELRIC cost model in developing
12 UNE rates in cost proceedings.

13 **Q. HAVE YOU FOUND A SIMILAR CONCERN WITH THE FCC’S SECOND AND**
14 **THIRD PRINCIPLES FOR UNE COST MODELS?**

15 A. Yes. The FCC requires the following as its second and third principles:

16 Second, the model should be transparent. That is, the logic and
17 algorithms of the cost study should be revealed, understandable,
18 capable of being adjusted by the parties and regulators, and not
19 contain “black boxes.” ... Third, any assumptions contained in
20 the model should be verifiable. Any data used to estimate costs
21 should either be from public sources, or capable of verification and
22 audit without undue cost or delay.³⁷

23 CenturyTel’s cost study fails to comply with these two principles in many ways. I have
24 already addressed in my Direct Testimony that CenturyTel failed to provide Socket

³⁷ *Id.*

1 Telecom with the underlying information related to the cost factor development that goes
2 into the development of the recurring rates. Specifically, the Circuit Equipment, Buried
3 Copper, and Buried Fiber Annual Cost Factors are all hard-coded within the loop cost
4 model with no backup calculation support showing how the factors were developed. A
5 reasonable set of information that would be “revealed, understandable, capable of being
6 adjusted by the parties and regulators, and not contain ‘black boxes’” would include, at a
7 minimum, the depreciation lives assumed for each asset class, the salvage assumptions
8 made, the application and use of various cost information that would be applied to the
9 investment recovery, as well as all of the inputs utilized to develop cost of capital. None
10 of this information or anything resembling it has been provided in a model by CenturyTel
11 in this proceeding.

12 However, this is only the beginning of the “black boxes” contained within
13 CenturyTel’s loop model filing. The following is a non-exhaustive list of other dead
14 ends within CenturyTel’s filing:

- 15 • All fill factors (Copper Fill Factor, Fiber Fill Factor, DLC Fill Factor) are
16 hard-coded within the model with absolutely no information provided to
17 demonstrate the calculated basis for the factors. Moreover, there is no
18 indication as to how these fill factors would relate to the modeled use of cable
19 sizes used in developing the unit costs for the model.
- 20 • The loop samples for the 18 exchanges that CenturyTel utilized to perform its
21 analysis have not been provided nor has any of the preprocessing analysis that
22 may have been performed on these samples been provided so as to determine

1 whether the use of this data is reasonable. Certainly, based on the hard-coded
2 approach taken by CenturyTel, there is no reasonable method available to the
3 parties or to the Commission to alter the distribution of the samples into the
4 fiber-fed and non-fiber-fed categories that CenturyTel has utilized.

- 5 • CenturyTel's loop cost model takes the samples and hard-codes a distribution
6 of them into five areas with hard-coded usage of the feeder (much with hard-
7 coded distances) and distribution. There is no straightforward manner
8 available to the parties or to the Commission to alter the distribution of these
9 samples into these five areas or to alter the engineering approach utilized for
10 these different areas.

- 11 • All of the material price inputs in the model are a "block box." There is
12 absolutely no backup support provided by CenturyTel demonstrating the
13 source for these inputs or how they were derived. Given that there are no
14 separate inputs for the various components that would go into the copper
15 cable elements (feeder and distribution) such as Feeder Distribution Interfaces
16 or Distribution Terminals, these network elements must be combined into the
17 per foot prices that CenturyTel is identifying. And yet, because the values are
18 hard-coded into the loop model, there is no way for the parties or the
19 Commission to evaluate how these inputs were developed by CenturyTel.

- 20 • The DLC and Remote Units pricing is hard-coded as a single investment per
21 line. There is absolutely no back-up support included in the model to show
22 the derivation of this investment. In my review of numerous loop cost studies,

1 DLC pricing is typically derived within the cost model by identifying the
2 types of DLC used, the component prices for the equipment, the capacity in
3 lines served by the DLC equipment, and ultimately derived down to an
4 investment per line. However, with CenturyTel, the investment is simply
5 identified as an investment per line with no back-up, no equipment
6 information, no sizing derivation, or any other particulars. Moreover, in
7 CenturyTel's cost study filing, the value used for the DLC and Remote Units
8 pricing is actually provided in hidden cells that appear to have been cleared by
9 CenturyTel prior to filing. In other words, it appears that at one time there
10 may have been some backup information available, but CenturyTel removed
11 this backup information, hard-coded the resulting value that it wished to use,
12 and hid the cells where these calculations were performed at one time.³⁸

- 13 • Drop Investment is hard-coded in the model with absolutely no support for the
14 value used in the model. Typical support that would be provided is
15 information such as the average length of drop assumed, the size NID utilized,
16 the cost of the NID, the cost to install the NID, the cost to install the drop, the
17 size of the drop utilized, contract prices to perform this work, *etc.* CenturyTel
18 is using a different Drop Investment for each of the five areas included in the

³⁸ See "DALLAS-#957960-v1-CTL_- _CTL_- _CONFIDENTIAL_COST_STUDY_-
_TELRIC_MISSOURI_- _PROFILE-MO" Workbook, "Area_4" Worksheet, Rows 14-36. These
rows will have to be unhidden to see the information (or lack thereof) contained there.

1 cost study but has provided no backup information for any of them. They are
2 all hard-coded and represent a “dead-end” in evaluating the cost model.

- 3 • The DLC investment for the core system and the fiber feeder to the DLC
4 system are hard-coded values that are used for every line. CenturyTel has not
5 modeled the DLC investment based on the placement of the DLC in a
6 “network” but has simply made broad-based assumptions regarding the
7 development of the DLC core investment.

- 8 • As noted earlier, all inputs related to the DLC core system pricing are hard-
9 coded with absolutely no support provided by CenturyTel.

- 10 • There are five hard-coded engineering designs for loops of different fixed
11 break-points built into the CenturyTel cost model. While it would be possible
12 to alter these somewhat and even possibly add more designs, the application
13 of these designs certainly does not represent a dynamic model of the real
14 demand in CenturyTel’s network. Instead, it represents CenturyTel’s attempt
15 to shoehorn its demand into these five breakpoints. Moreover, from a “black
16 boxes” perspective, access to the information in the samples is not provided in
17 a form that would allow the user to apply the information to different designs
18 in an internally consistent manner if the parties or the Commission should
19 wish to do so.

20 These problems are specifically related to the 2-Wire and 4-Wire Analog Loop Cost
21 Study which forms a significant basis of the DS1 Loop Cost Study which CenturyTel is
22 relying upon. Similar “black boxes” appear within the DS1 and DS3 Loop Cost Studies

1 as well. The bottom line is that CenturyTel's cost filing does not even begin to comply
2 with the second requirement for TELRIC cost studies and their transparency to the user
3 as defined by the FCC.

4 **Q. DID YOU REVIEW DR. AVERA'S TESTIMONY RELATED TO THE**
5 **PROPOSED 11.25 PERCENT COST OF CAPITAL OR HIS**
6 **RECOMMENDATION THAT IT SHOULD BE AS HIGH AS 12.18 PERCENT?**³⁹

7 A. Yes. Please recall that I do not have the ability to verify that the 11.25 percent claimed
8 cost of capital was actually used in the cost studies as the annual cost factors are hard-
9 coded into the cost model. Nonetheless, I have reviewed the testimony filed by Dr.
10 Avera regarding the cost of capital.

11 **Q. DO YOU HAVE ANY COMMENTS ON HIS TESTIMONY?**

12 A. Yes. In many respects, Dr. Avera's testimony that he has filed in this proceeding related
13 to the cost of capital looks very similar to the testimony that Dr. Avera filed on behalf of
14 AT&T in Texas in a UNE cost proceeding in that state in 2003.⁴⁰ In this Missouri
15 proceeding, Dr. Avera asserts that "reasonable TELRIC-based cost of capital for
16 CenturyTel's UNEs is on the order of 12.18%."⁴¹ In the Texas proceeding, Dr. Avera
17 concluded that the AT&T cost of capital was 12.19 percent.⁴²

³⁹ Avera Direct at 27.

⁴⁰ Public Utility Commission of Texas, Docket No. 28600, *Arbitration of Phase I Costing Issues for Successor Interconnection Agreements to the Texas 271 Agreement*, Southwestern Bell Telephone L.P. d/b/a SBC Texas' Direct Testimony of Dr. William E. Avera, December 5, 2003 (hereafter referred to as "Avera Texas Testimony").

⁴¹ Avera Direct at 27.

⁴² Avera Texas Testimony at 9.

1 While I recognize that the Missouri Commission will decide these issues on its
2 own, I believe it is worth noting that ultimately the Texas Commission did not use the
3 proposed cost of capital calculated by Dr. Avera. Instead, the Texas Commission utilized
4 a cost of capital of 9.29 percent.⁴³ This cost of capital is significantly below that
5 proposed by Dr. Avera and also significantly below that allegedly used by CenturyTel –
6 11.25 percent.

7 **B. RESPONSE TO CENTURYTEL FILL FACTOR PROPOSALS**

8 **Q. WHAT IS A FILL FACTOR AND WHAT IS ITS PURPOSE?**

9 A. Cost study analysts use fill factors to “unitize” the costs of a larger piece of equipment
10 that can be used to provide more than one unit of service. For example, copper cables are
11 generally purchased in complements that include multiple copper pairs. For example,
12 CenturyTel may purchase 1,000 feet of 900-pair copper cable. In most circumstances,
13 each copper pair can support one 2-wire voice grade unbundled loop. Hence, there is a
14 need, within a cost study attempting to determine the costs of a single unbundled loop, to
15 translate the investment associated with purchasing the 1,000 feet of 900-pair cable into a
16 “per copper pair” investment. While it may seem logical to assume that simply dividing
17 the investment in the 900-pair cable by 900 pairs should provide an adequate “cost per
18 cable pair,” another issue must be addressed.

19 In any telecommunications network, it is fair to assume that some amount of the
20 plant will not be used to generate revenues or cost recovery at any given time. This

⁴³ Public Utility Commission of Texas, Docket No. 28600, *Arbitration of Phase I Costing Issues for Successor Interconnection Agreements to the Texas 271 Agreement*, Revised Arbitration Award, (continued)

1 results from the fact that some amount of the plant will be defective (or may become
2 defective), some amount may be required for testing or other administrative purposes,
3 and cable may simply not be available in as discreet a compliment as an engineer would
4 prefer. Mr. Davis identifies all of these reasons in his Direct Testimony on behalf of
5 CenturyTel as contributing to the development of fill factors.⁴⁴ For these reasons, it is
6 necessary to apply a “fill factor” that captures the costs of the entire 900-pair cable from
7 those copper pairs that are expected to generate revenue over the life of the facility.

8 **Q. HOW SIGNIFICANT ARE CENTURYTEL’S PROPOSED FILL FACTORS TO**
9 **THE RESULTING COSTS IN THE COST STUDIES?**

10 A. Fill factors represent perhaps the single most influential input in a cost study. All other
11 things being equal, a move from a 75 percent fill for copper feeder cable, for example, to
12 a *****CONFIDENTIAL ***** END CONFIDENTIAL***** percent fill increases the
13 cost for this portion of the network by a factor of *****CONFIDENTIAL ***** END**
14 **CONFIDENTIAL***** – more than doubling the cost.⁴⁵ Given the change in fill factors
15 illustrated above, it is no wonder that CenturyTel’s costs for 2-Wire Analog loops in
16 Missouri are dramatically higher than those that were developed for Verizon-Missouri.

September 7, 2004, DPL Item No. 5.

⁴⁴ Davis Direct at 14-18.

⁴⁵ The increased factor of *****CONFIDENTIAL ***** END CONFIDENTIAL***** is calculated by dividing 0.75 by *****CONFIDENTIAL ***** END CONFIDENTIAL*****.

1 **Q. DO YOU BELIEVE CENTURYTEL SHOULD BE ALLOWED TO USE**
2 **“ACTUAL” FILL FACTORS AS OPPOSED TO EFFICIENT, FORWARD-**
3 **LOOKING FILL FACTORS?**

4 A. No. The use of “actual” fill factors does not comport with TELRIC principles. “Actual”
5 fill factors do not accurately provide results consistent with a forward-looking economic
6 cost methodology. Indeed, a cost study that relies upon “actual” fill factors is likely to
7 provide results more consistent with embedded costs, which have been specifically
8 rejected by the FCC.

9 **Q. DO THE FCC’S RULES CONTEMPLATE THE USE OF “ACTUAL” FILLS?**

10 A. No. The FCC’s *Local Competition Order* states:

11 Per-unit costs shall be derived from total costs using reasonably
12 accurate “fill factors” (estimates of the proportion of a facility that
13 will be “filled” with network usage); that is, the per-unit costs
14 associated with a particular element must be derived by dividing
15 the total cost associated with the element by a reasonable
16 projection of the actual total usage of the element.⁴⁶

17 It is important to note that the FCC contemplates use of a “*reasonable projection of the*
18 *actual total usage*” being incorporated into the calculation of fill. This requires that
19 CenturyTel reflect not the usage that occurs on its network today, but rather, a projection
20 of usage that it reasonably anticipates in calculating fill. CenturyTel does not appear to
21 have done this given the claims of simply using embedded actual fills per Mr. Davis’
22 testimony.

⁴⁶ *Local Competition Order*, ¶682.

1 **Q. HOW DO CENTURYTEL'S COSTS FOR 2-WIRE ANALOG LOOPS COMPARE**
2 **WITH THE VERIZON RATES THAT CENTURYTEL HAS AGREED TO**
3 **UTILIZE IN ITS INTERCONNECTION AGREEMENT WITH SOCKET**
4 **TELECOM?**

5 A. Perhaps the best way to illustrate this difference is to compare the rate that CenturyTel
6 calculated for two of its exchanges for 2-Wire Analog Loops: Columbia Main and
7 Branson. Both of these are "urban" Zone 4 exchanges. For Columbia Main,
8 CenturyTel's cost study developed a rate of *****CONFIDENTIAL ***** END**
9 **CONFIDENTIAL***** and for Branson, CenturyTel's cost study developed a rate of
10 *****CONFIDENTIAL ***** END CONFIDENTIAL*****.⁴⁷ By way of comparison,
11 the agreed-to rate for a 2-Wire Analog Loop that is based on the Verizon cost studies in
12 Missouri is \$19.14. In short, CenturyTel's claimed TELRIC-compliant cost studies result
13 in rates for 2-Wire Analog Loops for Columbia and Branson that are
14 *****CONFIDENTIAL ***** END CONFIDENTIAL***** higher
15 than the *agreed-to arbitrated rate* for a 2-Wire Analog Loop based on the Verizon cost
16 study. Given this huge disparity and the fact that CenturyTel is *not* relying on these rates
17 for the 2-Wire Analog Loop in this proceeding, the Commission should seriously
18 question using these underlying costs at all in the development of the DS1 Loop Cost
19 Study.

⁴⁷ These rates were derived by taking the proposed 2-Wire Analog Loop costs for Columbia Main and Branson from the "DALLAS-#957960-v1-CTL_- _CTL_- _CONFIDENTIAL_COST_STUDY_- _TELRIC_MISSOURI_- _PROFILE-MO" Workbook, "avgloopcost" Worksheet, Cells B40 (Branson) and B103 (Columbia Main) and multiplying these costs by CenturyTel's proposed Common Overhead Factor of *****CONFIDENTIAL ***** END CONFIDENTIAL***** percent. This percentage is found in "DALLAS-#957960-v1-
(continued)

1 **Q. DO YOU BELIEVE THAT THE FILL FACTORS THAT CENTURYTEL IS**
2 **USING CONTRIBUTE TO THIS ENORMOUS DISPARITY?**

3 A. Absolutely. There are many factors that contribute to this disparity between what
4 CenturyTel will agree to for a 2-Wire Analog Loop price and what it claims are its costs
5 such as engineering considerations, input pricing concerns, cost factors, and the like.
6 However, fill factors are a significant problem.

7 **Q. IF THE COMMISSION WERE TO CONSIDER THE CENTURYTEL COST**
8 **STUDIES FURTHER, WHAT WOULD YOU RECOMMEND?**

9 A. *First*, CenturyTel, for its all copper loops, is proposing to use a single copper fill factor
10 for both the feeder cable as well as the distribution cable of *****CONFIDENTIAL** *****
11 **END CONFIDENTIAL***** percent. The reality is that there are many engineering
12 reasons why this is simply unreasonable.

13 Mr. Davis illustrates part of this problem in his testimony. Specifically, Mr.
14 Davis indicates that for *distribution cable*, CenturyTel uses an engineering sizing factor
15 of 2.25 pairs per living unit for the sizing of the distribution cable.⁴⁸ While this is a high
16 sizing factor based on my experience in reviewing loop cost studies across the country, it
17 is not entirely outside the realm of reason. Mr. Davis then goes on to apply this sizing
18 factor to a 35-lot subdivision concluding that a 100-pair cable would be required.
19 Assuming that these 35 lots ultimately use approximately 1.2 lines per lot (assuming a 20
20 percent penetration of second lines), the 35 lots would utilize 42 lines. These 42 lines

CTL_-_CONFIDENTIAL_COST_STUDY_-_TELRIC_MISSOURI_PAM_BRANSON"
Workbook, "Inputs" Worksheet, Cell C37.

⁴⁸ Davis Direct at 15.

1 would represent a distribution fill factor of 42 percent. This is higher than the
2 ***CONFIDENTIAL ***** END CONFIDENTIAL*** percent used by CenturyTel
3 but not significantly higher. However, if a slightly larger neighborhood is used of
4 perhaps 80 lots, then a 200-pair distribution cable would be utilized.⁴⁹ With a 200-pair
5 distribution cable and the 1.2 lines used per lot discussed above, 96 pairs would be
6 utilized. This would lead to a fill factor of 48 percent. My point overall is that when
7 considering the range of reasonably sized distribution cables, it is unreasonable to believe
8 that CenturyTel's average fill factor would be ***CONFIDENTIAL ***** END
9 CONFIDENTIAL*** percent. A more reasonable value using the 2.25 pairs per living
10 unit assumption (which I believe to be highly conservative) would be approximately 45
11 percent.

12 However, the major problem with CenturyTel's approach in its cost study is that
13 it does not utilize a different fill factor for *feeder cable*. Typically, feeder cable can be
14 augmented (and is augmented) much more easily than distribution cable. As such, it is
15 typical to implement a much tighter engineering of fill for feeder cable. For example, a
16 very conservative figure would be to utilize perhaps 1.5 pairs of feeder per living unit.
17 Assuming that the typical living unit utilizes 1.2 lines as discussed above and no
18 breakage, the fill factor that would be derived from these assumptions for *feeder cable*
19 would be approximately 80 percent. With breakage incorporated, a feeder fill factor of
20 approximately 75 percent would be reasonable.

⁴⁹ 80 lots multiplied by 2.25 pairs per lot equals 180 pairs. This would be rounded to the next standard cable size of 200 pairs.

1 **Q. HAVE YOU SEEN ANY OTHER FILL FACTOR ANOMALIES IN**
2 **CENTURYTEL'S COST STUDY?**

3 A. Yes. One other that I believe is important to point out for the Commission is for copper
4 cable behind digital loop carrier. This copper cable is distribution copper cable much
5 like in an all copper loop. However, with this distribution copper cable, the cable is
6 interfaced with DLC that then uses fiber feeder facilities back to the central office.

7 With CenturyTel's distribution copper cable behind DLC, CenturyTel utilizes a
8 fill factor of *****CONFIDENTIAL** ***** **END CONFIDENTIAL***** percent.⁵⁰ This
9 is a dramatically higher distribution fill factor than what CenturyTel is using with its all-
10 copper loops. It is possible that CenturyTel is applying a tighter engineering guideline
11 than the 2.25 pairs per living unit assumption discussed in Mr. Davis' testimony. This
12 would be more in line with what I have observed with other incumbents across the
13 country. However, I would encourage the Commission to consider the use of this higher
14 fill factor for all distribution cable – not just behind DLC – if the Commission determines
15 to utilize the CenturyTel cost studies in any way to develop a DS1 Loop Rate in
16 Missouri.

17 **Q. MR. DAVIS IS ALSO THE WITNESS SUPPORTING THE ENGINEERING**
18 **ASSUMPTIONS FOR THE DS1 AND DS3 LOOPS COST STUDIES.⁵¹ COULD**
19 **YOU RESPOND TO THESE?**

20 A. Yes. In the following section, I will address the DS1 Loop and DS3 Loop Cost Studies
21 specifically and respond to some of Mr. Davis' assertions directly.

⁵⁰ See "DALLAS-#957960-v1-CTL_- _CTL_- _CONFIDENTIAL_COST_STUDY_-
_TELRIC_MISSOURI_- _PROFILE-MO" Workbook, "Area_4" Worksheet, Cell B10.

⁵¹ Davis Direct at 4-12 and 21-22.

C. RESPONSE TO DS1 LOOP COST STUDY

Q. EARLIER YOU INDICATED THAT THE 2-WIRE ANALOG LOOP AND 4-WIRE ANALOG LOOP COST STUDIES DERIVE MUCH OF THE COST FOR THE DS1 LOOP COST STUDY. COULD YOU PROVIDE MORE INFORMATION ON THIS ASSERTION?

A. Yes. The Commission may wonder why I have spent so much time addressing two cost studies for which CenturyTel is not sponsoring a rate given that CenturyTel and Socket Telecom are in agreement to utilize the Verizon-Missouri rates for the 2-Wire Analog Loop and 4-Wire Analog Loop. However, CenturyTel filed the cost studies which result in the outrageous 2-Wire Analog Loop rates I cited above as the underlying cost to the DS1 Loop Cost Study. Specifically, it is the related 4-Wire Analog Loop Cost Study that CenturyTel filed that forms much of the basis of the DS1 Loop Cost Study. If the analog loop cost study has problems (and it has numerous problems as cited above), then the DS1 Loop Cost Study is similarly flawed.

Q. HOW MUCH OF THE DS1 LOOP COST STUDY COST COMES FROM THE 4-WIRE ANALOG LOOP COST STUDY?

A. The following table illustrates the problem graphically demonstrating that on average, 80.88 percent of the DS1 Loop cost is taken straight from the 4-Wire Analog Loop Cost Study. In the table below, the “4-Wire Cost” column represents the cost that CenturyTel took from the 4-Wire Analog Loop Cost Study and incorporated into the DS1 Loop Cost Study. The “DS1 Cost” column represents the total cost that CenturyTel calculated for the DS1 Loop in each of the 18 exchanges that it studied. The “Percentage” column represents the percentage of the DS1 Loop cost that is taken straight from the 4-Wire Analog Loop Cost Study.

1 To begin with, CenturyTel actually filed 18 copies of the same DS1 Loop Cost
2 study for 18 different exchanges in Missouri. My analysis that follows will cite to only
3 one of these exchanges – Branson – but the same exact issue is replicated in all of the
4 exchange DS1 Loop Cost Studies. *First*, it is important to understand that the DS1 Loop
5 Cost Study actually calculates the cost for a 2-Wire Loop and 4-Wire Loop internal to the
6 DS1 Loop Cost Study. This is performed on a tab entitled “Loops” within the cost
7 study.⁵² Specifically, this tab identifies that for a 2-Wire Analog Loop, the cost
8 development uses many of the typical elements seen in a loop cost study such as the Drop
9 Termination (Row 9), NID (Row 10), 2-Wire copper feeder and distribution facilities
10 (Row 15), Fiber feeder facilities (Row 16), NGDLC (Row 17), MDF (Row 18), and
11 Circuit Equipment (Row 19).⁵³ Certainly, this cost study for the 2-Wire Loop suffers
12 from many of the same difficulties identified earlier. I will not review them again as that
13 is not the primary concern here. The primary concern is addressing why CenturyTel
14 ignored this cost development in lieu of a separate 2-Wire and 4-Wire Analog Loop Cost
15 Study. I would also point out that similar cost development also occurs for the 4-Wire
16 Loop in the DS1 Loop Cost Study as well including all of the same elements identified
17 above for the 2-Wire Loop.⁵⁴

⁵² See “DALLAS-#957960-v1-CTL_-_CONFIDENTIAL_COST_STUDY_-
_TELRIC_MISSOURI_PAM_BRANSON” Workbook, “Loops” Worksheet.

⁵³ See “DALLAS-#957960-v1-CTL_-_CONFIDENTIAL_COST_STUDY_-
_TELRIC_MISSOURI_PAM_BRANSON” Workbook, “Loops” Worksheet, Rows 7-24.

⁵⁴ See “DALLAS-#957960-v1-CTL_-_CONFIDENTIAL_COST_STUDY_-
_TELRIC_MISSOURI_PAM_BRANSON” Workbook, “Loops” Worksheet, Rows 47-67.

1 **Q. BEFORE GOING ON WITH YOUR DISCUSSION OF THE CALCULATIONS IN**
2 **ITS DS1 LOOP COST STUDY THAT IT IGNORED, COULD YOU PLEASE**
3 **COMMENT ON WHETHER THE 2-WIRE AND 4-WIRE LOOP COSTS**
4 **DEVELOPED IN THE DS1 LOOP COST STUDY COMPARE REASONABLY TO**
5 **THE 2-WIRE AND 4-WIRE LOOP COSTS DEVELOPED IN THE SEPARATE**
6 **COST STUDY DEVELOPED BY CENTURYTEL?**

7 A. They do not compare well at all. According to the DS1 Loop Cost Study development of
8 a 2-Wire Loop, the cost developed by CenturyTel is *****CONFIDENTIAL ***** END**
9 **CONFIDENTIAL*****.⁵⁵ On the other hand, the 2-Wire Loop costs that CenturyTel
10 developed in its separate cost study (which I have addressed above in some detail)
11 developed costs ranging from a low of *****CONFIDENTIAL ***** END**
12 **CONFIDENTIAL***** to a high of *****CONFIDENTIAL ***** END**
13 **CONFIDENTIAL***** for an average of approximately *****CONFIDENTIAL *******
14 **END CONFIDENTIAL*****. This 2-Wire Loop Cost Study produces a cost that is
15 almost 110 percent higher than the cost for the same element in the DS1 Loop Cost
16 Study, which CenturyTel also developed. This disparity is egregious and raises serious
17 concerns about the internal consistency in modeling network costs for CenturyTel.

18 The 4-Wire Analog Loop suffers from a similarly disastrous comparison.
19 According to the DS1 Loop Cost Study development of a 4-Wire Loop, the cost
20 developed by CenturyTel is *****CONFIDENTIAL ***** END**

⁵⁵ See "DALLAS-#957960-v1-CTL_-_CONFIDENTIAL_COST_STUDY_-_TELRIC_MISSOURI_PAM_BRANSON" Workbook, "Loops" Worksheet, Cell I23. There are slight differences between the exchanges in that, for example, the MDF price in some of the exchanges was set *****CONFIDENTIAL ***** END CONFIDENTIAL***** per 2-Wire Loop less in some exchanges than in others. However, there is no material difference in the analysis.

1 **CONFIDENTIAL*****.⁵⁶ On the other hand, the 4-Wire Loop costs that CenturyTel
2 developed in its separate cost study (which I have addressed above in some detail)
3 developed costs ranging from a low of *****CONFIDENTIAL ***** END**
4 **CONFIDENTIAL***** to a high of *****CONFIDENTIAL ***** END**
5 **CONFIDENTIAL***** for an average of approximately *****CONFIDENTIAL *******
6 **END CONFIDENTIAL*****. This 4-Wire Loop Cost Study produces a cost that is
7 almost 104 percent higher than the cost for the same element in the DS1 Loop Cost
8 Study, which CenturyTel also developed.

9 **Q. COULD YOU EXPLAIN THE RELEVANCE OF THIS DISPARITY AND HOW**
10 **IT RELATES TO THE DS1 LOOP COST STUDY?**

11 A. Yes. The importance of the disparity is that while CenturyTel's DS1 Loop Cost Study is
12 designed to develop the cost for the copper portion of the 4-Wire Loop and the fiber cost
13 to reach that copper so that the customer has a complete circuit back to the CenturyTel
14 central office, CenturyTel has effectively disabled these calculations in its DS1 Loop
15 Cost Study. Specifically, CenturyTel has disabled the calculation of fiber cost in the DS1
16 Loop Cost Study by setting the fiber distance in the model to zero miles.⁵⁷ Moreover, and
17 much more importantly, CenturyTel has also disabled the internally calculated cost for
18 the 4-Wire Loop and instead inserted its externally calculated cost for the 4-Wire Loop
19 that is dramatically higher in cost as cited above. This is done in the DS1 Loop Cost

⁵⁶ See "DALLAS-#957960-v1-CTL_-_CONFIDENTIAL_COST_STUDY_-
_TELRIC_MISSOURI_PAM_BRANSON" Workbook, "Loops" Worksheet, Cell I63.

⁵⁷ See "DALLAS-#957960-v1-CTL_-_CONFIDENTIAL_COST_STUDY_-
_TELRIC_MISSOURI_PAM_BRANSON" Workbook, "Inputs" Worksheet, Cell C116.

1 Study by simply subtracting out the 4-Wire Loop cost that the DS1 Loop Cost Model
2 calculated and inserting in the 4-Wire Loop cost that CenturyTel separately calculated.⁵⁸

3 The reality is that there simply does not appear to be any reasonable logic to why the
4 fiber cost calculations inside the DS1 Loop cost model have been turned off or why the
5 4-Wire Loop cost calculations inside the model have been ignored. There certainly is no
6 clear explanation provided in the cost study or testimony offered by CenturyTel.

7 **Q. IS IT POSSIBLE THAT CENTURYTEL SIMPLY BELIEVED THAT ITS**
8 **EXTERNALLY DEVELOPED 4-WIRE ANALOG LOOP COST STUDY WAS**
9 **MORE REFLECTIVE OF ITS REAL COSTS?**

10 **A.** No. And that is what I believe is the real problem here. CenturyTel does *not* believe that
11 its 4-Wire Analog Loop Cost Study is appropriate for use. CenturyTel has instead agreed
12 with Socket Telecom to utilize the 4-Wire Analog Loop rates that were developed for
13 Verizon in Missouri and that previously applied to the Verizon exchanges that
14 CenturyTel acquired. If CenturyTel believes that this is the appropriate rate for a 4-Wire
15 Analog Loop, then this should have been the foundational part of its DS1 Loop Cost
16 Study. This is particularly true given that CenturyTel completely ignored the 4-Wire
17 Loop development that was already included in that model to begin – a 4-Wire Loop cost
18 development that was less than half what CenturyTel developed externally.

⁵⁸ See “DALLAS-#957960-v1-CTL_-_CONFIDENTIAL_COST_STUDY_-_TELRIC_MISSOURI_PAM_BRANSON” Workbook, “DS1_CT” Worksheet, Cell G98. This cell contains a formula (G95-D80+G97). The subtraction of D80 removes the portion of the 4-Wire Loop cost internally calculated in the DS1 Loop Cost Study and the addition of Cell G97 adds in the externally developed 4-Wire Loop cost.

1 **Q. IS IT POSSIBLE TO INCORPORATE THE AGREED-TO 4-WIRE ANALOG**
2 **LOOP COST INTO THE DEVELOPMENT OF THE DS1 LOOP RATE RATHER**
3 **THAN CENTURYTEL'S EXTERNALLY DEVELOPED 4-WIRE ANALOG**
4 **LOOP COST THAT IT IS NOT EVEN SPONSORING?**

5 A. Yes. Given that CenturyTel simply added in the cost for the externally developed 4-Wire
6 Analog Loop, I removed that cost and instead inserted in the cost for the 4-Wire Analog
7 Loop that CenturyTel has agreed to in this proceeding. Given that according to
8 CenturyTel's own cost study 80.88 percent of the DS1 Loop rate should be based on the
9 4-Wire Analog Loop Rate, there is no reason that CenturyTel should not utilize the
10 underlying 4-Wire Analog Loop Rate that it is in agreement should exist between itself
11 and CenturyTel.

12 The following table summarizes the revised DS1 Loop Rates that would apply in
13 the Spectra and CenturyTel jurisdictions that are derived from my recalculation of
14 CenturyTel's cost study. I have also included the proposed rates that Socket originally
15 proposed for DS1 Loops in this same proceeding that were based on CenturyTel's
16 Special Access tariffs.

Zone	Spectra	CenturyTel	Socket's Original Proposal
Zone 1	\$146.89	\$140.63	\$208.71
Zone 2	\$138.58	\$131.82	\$192.96
Zone 3	\$97.83	\$90.82	\$99.81
Zone 4	\$80.50	\$70.49	\$66.17

17
18 As can be seen from the above, for Zone 3 and Zone 4, the original Socket
19 Telecom proposal is reasonable when compared to the Spectra or CenturyTel rates when
20 the agreed-to 4-Wire Analog Loop costs are incorporated rather than when CenturyTel's

1 significantly overstated, externally developed loop costs are incorporated. For Zone 1
2 and Zone 2, Socket Telecom's proposal appears to be too high. Moreover, since the
3 revised rates that I have calculated above are at least based on cost information rather
4 than CenturyTel's special access tariffs, Socket Telecom will be modifying its proposed
5 DS1 Loop Rates in its final offer to CenturyTel to conform to the rates shown in the
6 "Spectra" and "CenturyTel" columns of the table above. In any event, I would strongly
7 encourage the Commission to reject the DS1 Loop rates developed by CenturyTel. These
8 rates are inconsistent with CenturyTel's own cost development within the DS1 Loop Cost
9 Study. Further, its rates are completely out of line with the 4-Wire Loop rates that it has
10 already agreed to utilize that were developed for Verizon. Finally, I have provided the
11 Commission with a significant array of problems with the externally developed 4-Wire
12 Loop cost study that should preclude its use particularly in light of how inconsistent it is
13 with rates that CenturyTel has already agreed to implement in Missouri.

14 **Q. DO YOU BELIEVE THAT EVEN THESE RATES THAT YOU HAVE**
15 **RECALCULATED FOR THE DS1 LOOP WOULD STILL BE TOO HIGH?**

16 A. Yes. As noted earlier in this testimony, there are many reasons to believe that the annual
17 cost factors that CenturyTel is using are overstated. These overstated cost factors have
18 not been revised in my restated DS1 Loop rate above for the equipment retained in
19 CenturyTel's DS1 Loop Cost Study because it is not possible for me to do so without
20 access to CenturyTel's cost factor study. Further, there are other input related problems
21 with CenturyTel's cost study that would need further adjustments. Nonetheless, it is a
22 much more reasonable approximation of the real costs for a DS1 Loop than what
23 CenturyTel has proposed in this proceeding.

D. RESPONSE TO DS3 LOOP COST STUDY

Q. HAVE YOU BEEN ABLE TO PERFORM A COMPREHENSIVE REVIEW OF THE DS3 LOOP COST STUDY SUBMITTED BY CENTURYTEL?

A. No. Given the lack of time from when CenturyTel submitted the cost studies to now, there has been insufficient time to perform a comprehensive review. Moreover, with cost studies there is a need for substantial discovery – particularly given the lack of backup documentation provided by CenturyTel – and there has been insufficient time for this as well. As a result, I have been unable to perform a comprehensive review of the DS3 Loop Cost Study. The same is true for the other cost studies submitted by CenturyTel as well. However, with the DS1 Loop Cost Study there was a straightforward way to adjust the cost study to at least bring the rates closer to a reasonable cost estimate than CenturyTel’s initial effort.

Q. THAT SAID, HAVE YOU IDENTIFIED ANY GLARING DIFFICULTIES IN CENTURYTEL’S DS3 LOOP COST STUDY?

A. Yes. *First*, there is a dramatic problem with the way that CenturyTel developed the average loop distance for the DS3 loops in the cost study. CenturyTel used for the DS3 Loop the same average loop distance as CenturyTel developed for the 2-Wire Analog Loop cost study. This can be seen by comparing the average loop distance CenturyTel calculated for Branson in the 2-Wire Loop cost study⁵⁹ to the average loop distance that CenturyTel incorporated into the DS3 Loop cost study⁶⁰ – they are both

⁵⁹ See “DALLAS-#957960-v1-CTL_- _CTL_- _CONFIDENTIAL_COST_STUDY_- _TELRIC_MISSOURI_- _PROFILE-MO” Workbook, “avgloopcost” Worksheet, Cell H40.

⁶⁰ See “DALLAS-#957960-v1-CTL_- _CONFIDENTIAL_COST_STUDY_- _TELRIC_MISSOURI_PAM_BRANSON” Workbook, “Inputs” Worksheet, Cell E89.

1 ***CONFIDENTIAL **** **END CONFIDENTIAL***** miles. All of the 18 exchanges
2 are done the same way.

3 **Q. WHY IS THIS PARTICULARLY A PROBLEM?**

4 A. This is a problem because the location of customers for 2-Wire Analog Loops which are
5 generally residences and small business are likely going to have a much more disparate
6 placement across a wire center than are DS3 Loops which are only going to be used by
7 large businesses. Often central offices are placed near the central business districts where
8 large businesses that utilize DS3 Loops would be located. As such, one would anticipate
9 that the average loop distance of a DS3 Loop would be shorter – and likely dramatically
10 shorter – than the average loop distance of residential and small business 2-Wire Analog
11 Loops. At a minimum, one would reasonably anticipate that CenturyTel would
12 investigate the DS3 Loop distance rather than just incorporating the 2-Wire Analog Loop
13 distance into the cost study.

14 **Q. WOULD YOU ANTICIPATE THAT THE CORRECTION OF THIS PROBLEM**
15 **WOULD HAVE A SIGNIFICANT IMPACT ON THE RESULTS?**

16 A. Yes. For example, in Branson, 74 percent of the cost for the DS3 Loop is tied up in fiber
17 cost. If a more reasonable distance for an average DS3 Loop were used – for example
18 0.5 miles – the percentage of DS3 costs in Branson associated with fiber would drop to
19 25 percent. The monthly rate for the DS3 Loop in Branson drops from
20 ***CONFIDENTIAL ***** **END CONFIDENTIAL*****. Clearly, the
21 distance assumption for the DS3 Loop is a critical driver in the development of the DS3
22 Loop cost. Either way, the Commission should not permit the DS3 Loop distance to be
23 based on the average distance to a residential or small business 2-Wire Analog Loop.

1 **Q. ARE THERE OTHER OBVIOUS PROBLEMS WITH CENTURYTEL'S DS3**
2 **LOOP COST STUDY?**

3 A. Yes. I have already indicated that there are considerable problems with the cost factors
4 utilized by CenturyTel. Further, the equipment inputs utilized by CenturyTel do not have
5 traceable support provided such as contracts demonstrating the costs actually paid by
6 CenturyTel for the equipment. Finally, the fill factors that CenturyTel has used for the
7 fiber cable are dramatically lower than what I would anticipate is reasonable

8 **E. DISCUSSION OF NONRECURRING COSTS**

9 **Q. MR. HANKINS' TESTIMONY GIVES THE IMPRESSION THAT THE**
10 **VERIZON-BASED NRCS THAT ARE INCORPORATED IN OTHER**
11 **CENTURYTEL INTERCONNECTION AGREEMENTS HAVE BEEN**
12 **"APPROVED" BY THIS COMMISSION.⁶¹ COULD YOU COMMENT ON HIS**
13 **ASSERTION?**

14 A. Yes. It is true that these nonrecurring charges are found in an "approved"
15 interconnection agreement in Missouri. However, these nonrecurring charges have never
16 been subject to a cost study review in Missouri or any other state and cannot be deemed
17 to be cost-based in any way.

18 **Q. ARE THESE NRC RATES "MISSOURI-SPECIFIC" AS MR. HANKINS**
19 **CLAIMS?⁶²**

20 A. Not at all. These rates are not specific to Missouri in terms of them being based on
21 Missouri labor rates or activity times or probability that a task will occur – all factors in
22 developing nonrecurring costs. Instead, these nonrecurring rates are based on Verizon's
23 generic pricing attachment. In other words, Verizon developed a prototype

⁶¹ Hankins Direct at 5.

⁶² Hankins Direct at 6.

1 interconnection agreement and identified nonrecurring costs in this prototype
2 interconnection agreement. These costs represent what Verizon would seek as its
3 nonrecurring charges absent any type of review by a Commission. As this Commission
4 knows from performing nonrecurring cost study reviews (for which I was a witness in
5 Missouri), the final costs and rates that are arrived at after scrutiny by the parties and the
6 Commission are often dramatically different than the initial requested rates.

7 **Q. IF THESE NONRECURRING CHARGES ARE NOT MISSOURI-SPECIFIC,**
8 **WHERE ELSE HAVE YOU OBSERVED THEM?**

9 A. You can find these same rates in old Verizon interconnection agreements in Kentucky,⁶³
10 Ohio,⁶⁴ and Wisconsin.⁶⁵ Again, these nonrecurring charges are from Verizon's generic
11 pricing attachment and do not represent rates that are in any way specific to Missouri.

12 **Q. HAS THIS COMMISSION EVER LOOKED AT NONRECURRING COSTS FOR**
13 **VERIZON IN MISSOURI?**

14 A. Yes. And this Commission did not like what it saw. Specifically, the Commission made
15 the following finding regarding nonrecurring costs:

16 GTE's TELRIC studies are based on actual costs, the costs
17 associated with non-recurring events like hook-ups, trouble
18 shooting, and service calls, are already built into the cost of the
19 service at the historic experienced level. To the extent the level of

⁶³ For Kentucky, please see: http://162.114.3.165/PSCICA/2001/2001-224/2001-224_010802.pdf

⁶⁴ For Ohio, please see:
[http://dis.puc.state.oh.us/DISOCR.nsf/0/86B89E5E0043ECE985256BC900593F9B/\\$FILE/YFPS47JZFEMOE\\$10.txt](http://dis.puc.state.oh.us/DISOCR.nsf/0/86B89E5E0043ECE985256BC900593F9B/$FILE/YFPS47JZFEMOE$10.txt)

⁶⁵ For Wisconsin, please see: <http://psc.wi.gov/apps%5Cvia%5Cdocument%5C5ti509%5CZTEL-.doc>

1 events increases because of competition, the costs associated with
2 that change would not be reflected in the TELRIC.⁶⁶

3 It is my understanding that it was this finding that led to there being no nonrecurring
4 charges ordered for Verizon in Missouri. Nonetheless, Socket Telecom has proposed to
5 use the AT&T nonrecurring charges in Missouri in lieu of having no nonrecurring
6 charges at all.

7 **Q. MR. HANKINS CONTINUES TO PUSH THE VIEW THAT IT IS IMPROPER TO**
8 **RELY ON AT&T CHARGES IN MISSOURI.⁶⁷ COULD YOU COMMENT ON**
9 **HIS TESTIMONY?**

10 A. Yes. Mr. Hankins also invokes Dr. Avera's testimony supporting that CenturyTel and
11 AT&T are different and therefore AT&T rates should not be used. However, as I have
12 pointed out in discussing Dr. Avera's testimony, Dr. Avera only addresses issues of
13 investment differences which relate to recurring rates. He did not address nonrecurring
14 charges. Moreover, I would point out that there are several instances in this proceeding
15 where CenturyTel has agreed to utilize AT&T rates particularly in the area of DSL
16 elements.

17 That said, Mr. Hankins is simply incorrect in his reluctance to utilize the AT&T
18 nonrecurring charges. I explained this in my direct testimony in some detail. Briefly,
19 there are three components that make up all nonrecurring cost studies: labor rates, task
20 times, and the probability that a task will occur. With the AT&T cost studies, the labor
21 rates that were used were based on AT&T-Missouri labor rates with limited exceptions

⁶⁶ TO-97-63, AT&T-GTE Arbitration, *Final Arbitration Order*, pg. 101, August 20, 1997.

⁶⁷ Hankins Direct at 8-9.

1 when tasks were performed in other states such as Texas or California. There is no
2 reason to believe that these labor rates for AT&T would be materially different than labor
3 rates that CenturyTel would pay.

4 I also explained in my direct testimony that the task times involved in performing
5 tasks on network elements would not vary significantly between companies. For
6 example, the time that it takes a technician to perform a 2-Wire Cross Connect simply
7 should not vary dramatically between different company technicians that perform this
8 work. I have reviewed cross-connect cost studies across the country from every
9 incumbent LEC. I have personally observed and timed technicians performing 2-wire
10 cross-connects. I have also managed technicians performing this type of cross-connect.
11 In short, while there is some variance in the time involved in performing a cross-connect,
12 the variance is fairly small because the tasks are well defined and repeated routinely by
13 frame technicians across the country. The variance that I have seen is only a few minutes
14 in the cost studies for the most part.

15 Finally, the third aspect of a cost study is the probability that a task will occur. In
16 the case, again, of a 2-Wire Cross Connect, the tasks related to the technician reviewing
17 the order, identifying the frame location requiring the cross connect, and the running of
18 the jumpers establishing the connection will have a 100 percent probability of occurrence
19 when a cross-connect is ordered. There could be tasks that would not occur every time
20 such as requiring a dispatch to an unmanned central office. However, once again, these
21 variances generally do not lead to significant differences in time estimates.

1 My point in reviewing these three aspects to nonrecurring cost studies is that the
2 Commission, which performed detailed reviews of the AT&T nonrecurring cost studies,
3 should feel confident that it has nonrecurring charges that are representative of the cost
4 that would actually be incurred by CenturyTel.

5 **Q. THAT SAID, COULD YOU GIVE THE COMMISSION SOME SENSE OF THE**
6 **DIFFERENCE BETWEEN A 2-WIRE CROSS CONNECT NONRECURRING**
7 **CHARGE PROPOSED BY SOCKET TELECOM (BASED ON AT&T'S COSTS)**
8 **AND THAT PROPOSED BY CENTURYTEL?**

9 A. Socket Telecom's proposal for a 2-Wire Cross Connect is \$26.87. Assuming a labor rate
10 of approximately \$70.00 per hour, this nonrecurring charge would translate into
11 approximately 23 minutes of work time for the cross-connect. This is not unreasonable
12 based on my review of the tasks and cost studies across the country.

13 CenturyTel, on the other hand, proposes a 2-Wire Cross Connect nonrecurring
14 charge of \$463.05. Again, assuming a labor rate of approximately \$70.00 per hour, this
15 nonrecurring charge would translate into approximately 397 minutes (6.6 hours) of work
16 time for the cross-connect. This is an absolutely absurd amount of time for the cross-
17 connect to take.

18 **Q. IS THERE ANY CHANCE THAT THIS LEVEL OF DIFFERENCE COULD BE**
19 **ACCOUNTED FOR WITH THE "WE ARE NOT AT&T" EXPLANATION**
20 **OFFERED BY MR. HANKINS?**

21 A. Absolutely not. A variance in labor rates, times, or probability of having to perform a
22 task has no chance whatsoever of explaining an increase of 1623 percent over the
23 nonrecurring rate that this Commission approved for AT&T.

1 **Q. DOES THIS TYPE OF DISPARITY EXIST FOR MULTIPLE ELEMENTS OR IS**
2 **THE 2-WIRE CROSS-CONNECT ATYPICAL?**

3 A. No. With CenturyTel's proposed rates, this type of disparity occurs throughout the
4 nonrecurring charges. With this level of disparity it will be virtually impossible for
5 competition to develop at all in CenturyTel territory. Non-cost-based nonrecurring
6 charges simply present too large of an artificial barrier to entry.

7 **VII. NUMBER PORTABILITY (ARTICLE XII: DPL ISSUE NO. 2)**

8 **Q. MR. MILLER CLAIMS THAT THE PORTING OF REMOTE CALL**
9 **FORWARDING NUMBERS IS LOCATION PORTABILITY.⁶⁸ IS THIS NOT**
10 **WHAT YOU ADDRESSED IN YOUR DIRECT TESTIMONY?**

11 A. Yes. And to be very clear, the porting of remote call forwarding numbers is not location
12 portability. As I explained in my Direct Testimony, I recently participated in a
13 presentation before the Local Number Portability (LNPA) subcommittee of the North
14 American Numbering Council (NANC) related to this very issue. While in this meeting,
15 representatives of BellSouth, AT&T (SBC), Verizon, and others made it very clear that
16 porting of remote call forwarding numbers between rate centers is a routine occurrence
17 for which number portability should be provided. The following summarizes the findings
18 of the LNPA:

19 A customer, currently with another provider, has a Remote Call
20 Forwarding (RCF) arrangement where their number, associated
21 with Rate Center 1, is forwarded to a number in Rate Center 2.
22 This allowed the customer to physically move from Rate Center 1
23 to a location in Rate Center 2, while with this provider, and retain
24 their number for terminating calls. The customer now wants to be
25 served by PAETEC [a CLEC] and port their RCF'd number, the
26 one associated with Rate Center 1, to PAETEC. The current

⁶⁸ Miller Direct at 80-81.

1 provider serving the customer has refused to port the number,
2 stating that this is Location Portability (porting outside the Rate
3 Center).

4 The consensus of the group was that PAETEC should be allowed
5 to provide the same service, RCF or FX, to this customer as the
6 current provider does.⁶⁹

7 The important point here is that it is common in the industry to provide for number
8 portability of remote call forwarded numbers if the incumbent is offering the same to the
9 customer. Moreover, at a minimum, if Socket Telecom ultimately provides this service
10 in an FX arrangement whereby Socket Telecom honors the calling scope of the ported
11 number for both originating and terminating calls, there is certainly no reason to prohibit
12 this type of number porting.

13 **Q. WILL THE NUMBER BE PORTED TO ANOTHER NUMBER IN THE SAME**
14 **RATE CENTER?**

15 A. From a number portability standpoint, the number will be ported to another number in the
16 same rate center. Moreover, for originating calling (which is all that is relevant in a
17 remote call forwarding arrangement) Socket Telecom will honor to local calling scope of
18 the inbound remote call forwarding number. Effectively there is nothing different
19 happening here for the customer than what CenturyTel was doing for the customer.
20 CenturyTel is simply trying to put yet another restriction in place to prevent the ease of
21 movement of customers between carriers.

⁶⁹ 11-05 Final LNPA Minutes, p. 20.

1 **Q. DOES THIS ARRANGEMENT “PLACE AN UNREASONABLE BURDEN ON**
2 **CENTURYTEL” AS MR. MILLER CLAIMS?⁷⁰**

3 A. Absolutely not. As I have said several times, CenturyTel provides this type of service
4 already to customers that have moved locations but want to retain the “presence” of their
5 prior number. Socket Telecom simply needs to be able to continue to provide the same
6 type of arrangement. Moreover, as I indicated the LNPA subcommittee of NANC which
7 represents incumbents across the country found that number portability for just this type
8 of arrangement is entirely reasonable. Moreover, represents for numerous ILECs
9 indicated that they routinely perform this type of number porting.

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

11 A. Yes, it does.

⁷⁰ Miller Direct at 84.