Exhibit No. _____
Issues: Article XVIII: xDSL; Article XIIIL OSS;
Article V: Interconnection; Article VII: UNE Pricing;
Article XII: Number Portability
Witness: Steven E. Turner
Type of Exhibit: Rebuttal Testimony
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 CENTURYTEL OF MISSOURI, LLC AND SPECTRA COMMUNICATIONS, LLC PURSUANT TO SECTION 252(b)(1) OF THE TELECOMMUNICATIONS ACT OF 1996	)))))))	**CASE NO. TO-2006-0299**

REDACTED REBUTTAL TESTIMONY OF

STEVEN E. TURNER ON BEHALF OF

SOCKET TELECOM, LLC

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April 6, 2006

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]

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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

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[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.

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

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

A. First, Section 4.5 generally provides that Socket Telecom has a requirement to demonstrate to the Commission that "the loop technology will not significantly degrade the performance of other advanced services or traditional voice band services" as a condition of CenturyTel allowing for the deployment of the new technology. Mr. Elford seems to acknowledge that the language in Socket Telecom's proposed Section 4.5 is generally reasonable. His concern appears to be related to "timing" and yet he acknowledges that there are other portions of the agreement that make clear that the demonstration of the safety of the technology is required before its general deployment.[11] Nonetheless, Mr. Elford, despite his general agreement with the language of Section 4.5 and belief that his "timing" concerns are addressed elsewhere in agreed-to sections of Article XVIII, still wants to have this section removed.

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[10] Elford Direct at 9-10.

[11] *Id.*

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

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

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

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

[12] Elford Direct at 15-16.

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

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

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

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

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

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

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

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

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

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[13] Elford Direct at 16.

[14] Elford Direct at 16-18.

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

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

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

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

[15] Elford Direct at 20-21.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[16] Miller Direct at 16.

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

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

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

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

Q. MR. SIMSHAW[18] AND MR. MILLER[19] TAKE ISSUE WITH TRYING TO REQUIRE CENTURYTEL TO CONFORM TO THE RULES THAT HAVE BEEN ESTABLISHED FOR AT&T. COULD YOU COMMENT ON HIS CONCERN?

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

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17 Simshaw Direct at 13-35.

18 Simshaw Direct at 32-33.

19 Miller Direct at 10-11.

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

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

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

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

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[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*.")

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

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

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

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

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22 *First Report and Order*, ¶553.

23 Simshaw Direct at 15-25.

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

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

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

Q. IS MR. SIMSHAW'S PORTRAYAL OF THE COST CAUSER FOR INTERCONNECTION ACCURATE?

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

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

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

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

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

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

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

[24] Simshaw Direct at 26.

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

Q. YOU DISCUSSED IN YOUR DIRECT TESTIMONY AS TO WHY IT IS IMPORTANT THAT A REQUIREMENT FOR AGREEMENT BEFORE TRUNKING AND TRAFFIC EXCHANGE BEGINS IS IMPORTANT. DID ANYTHING SUGGESTED BY MR. MILLER CHANGE YOU OPINION?[26]

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

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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

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[27] Miller Direct at 38-41.

[28] Miller Direct at 42-43.

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

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

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

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

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

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

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

Q. IS IT YOUR UNDERSTANDING THAT CENTURYTEL HAS DROPPED THIS ISSUE WITH RESPECT TO ROUTING POINTS?[29]

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

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[29] Miller Direct at 61-64.

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

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

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

A. There are two fundamental reasons why Dr. Avera's assessment is fundamentally irrelevant to the issues at hand that I will address. *First*, the primary statistics that Dr. Avera relies upon point only to the possibility that CenturyTel's *recurring* costs should be higher than those of AT&T and Verizon. I emphasize *recurring* costs in that the statistics that Dr. Avera identifies are related to investment in network plant which drives recurring costs. Specifically, Dr. Avera claims that CenturyTel's net investment per line is $1453.[31] He does not indicate if this information is Missouri-specific or not. Nevertheless, this type of statistic is related to the investment in plant which is ultimately converted into *recurring* rates. He goes on to further claim that this net investment per line "exceeds that of AT&T/SBC by 46% and is approximately 2.8 times that of Verizon."[32] Again, Dr. Average does not indicate whether these investment differences are compared to AT&T and Verizon national network or are specific to Missouri. Given the gap with Verizon in particular, I would anticipate that the differences are based on national statistics and national statistics would not have any particular bearing on rates in

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30 Avera Direct at 4-9.

31 Avera Direct at 6.

32 *Id.*

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

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

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

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

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

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

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

Q. ULTIMATELY DR. AVERA CLAIMS THAT YOU ARE IMPROPERLY USING RECURRING RATES FROM MPSC DOCKET NO. TO-2005-0336.[33] IS THIS CORRECT?

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

> CenturyTel's lower customer density and greater investment per access line implies higher costs to provide local exchange services; a reality that is ignored under Socket's proposal to use rates for certain UNE services determined by the MPSC in Docket No. TO-2005-0336.[34]

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[33] Avera Direct at 8.

[34] *Id.*

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

Q. DR. AVERA ALSO CLAIMS THAT CENTURYTEL'S COST STUDIES MEET THE THREE GUIDELINES FOR COST STUDIES SET OUT IN THE VIRGINIA UNE ARBITRATION.[35] COULD YOU COMMENT ON HIS ASSERTION?

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

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

[35] Avera Direct at 14-15.

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

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

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

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

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

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

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

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

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

> Second, the model should be transparent. That is, the logic and algorithms of the cost study should be revealed, understandable, capable of being adjusted by the parties and regulators, and not contain "black boxes." ... Third, any assumptions contained in the model should be verifiable. Any data used to estimate costs should either be from public sources, or capable of verification and audit without undue cost or delay.[37]

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

[37] *Id.*

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

However, this is only the beginning of the "black boxes" contained within CenturyTel's loop model filing. The following is a non-exhaustive list of other dead ends within CenturyTel's filing:

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

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

- CenturyTel's loop cost model takes the samples and hard-codes a distribution of them into five areas with hard-coded usage of the feeder (much with hard-coded distances) and distribution. There is no straightforward manner available to the parties or to the Commission to alter the distribution of these samples into these five areas or to alter the engineering approach utilized for these different areas.
- All of the material price inputs in the model are a "block box." There is absolutely no backup support provided by CenturyTel demonstrating the source for these inputs or how they were derived. Given that there are no separate inputs for the various components that would go into the copper cable elements (feeder and distribution) such as Feeder Distribution Interfaces or Distribution Terminals, these network elements must be combined into the per foot prices that CenturyTel is identifying. And yet, because the values are hard-coded into the loop model, there is no way for the parties or the Commission to evaluate how these inputs were developed by CenturyTel.
- The DLC and Remote Units pricing is hard-coded as a single investment per line. There is absolutely no back-up support included in the model to show the derivation of this investment. In my review of numerous loop cost studies,

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

- Drop Investment is hard-coded in the model with absolutely no support for the value used in the model. Typical support that would be provided is information such as the average length of drop assumed, the size NID utilized, the cost of the NID, the cost to install the NID, the cost to install the drop, the size of the drop utilized, contract prices to perform this work, *etc.* CenturyTel 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.

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

- The DLC investment for the core system and the fiber feeder to the DLC system are hard-coded values that are used for every line. CenturyTel has not modeled the DLC investment based on the placement of the DLC in a "network" but has simply made broad-based assumptions regarding the development of the DLC core investment.
- As noted earlier, all inputs related to the DLC core system pricing are hard-coded with absolutely no support provided by CenturyTel.
- There are five hard-coded engineering designs for loops of different fixed break-points built into the CenturyTel cost model. While it would be possible to alter these somewhat and even possibly add more designs, the application of these designs certainly does not represent a dynamic model of the real demand in CenturyTel's network. Instead, it represents CenturyTel's attempt to shoehorn its demand into these five breakpoints. Moreover, from a "black boxes" perspective, access to the information in the samples is not provided in a form that would allow the user to apply the information to different designs in an internally consistent manner if the parties or the Commission should wish to do so.

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

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

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

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

Q. DO YOU HAVE ANY COMMENTS ON HIS TESTIMONY?

A. Yes. In many respects, Dr. Avera's testimony that he has filed in this proceeding related to the cost of capital looks very similar to the testimony that Dr. Avera filed on behalf of AT&T in Texas in a UNE cost proceeding in that state in 2003.[40] In this Missouri proceeding, Dr. Avera asserts that "reasonable TELRIC-based cost of capital for CenturyTel's UNEs is on the order of 12.18%."[41] In the Texas proceeding, Dr. Avera concluded that the AT&T cost of capital was 12.19 percent.[42]

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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.

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

B. RESPONSE TO CENTURYTEL FILL FACTOR PROPOSALS

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

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

In any telecommunications network, it is fair to assume that some amount of the 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)

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

Q. HOW SIGNIFICANT ARE CENTURYTEL'S PROPOSED FILL FACTORS TO THE RESULTING COSTS IN THE COST STUDIES?

A. Fill factors represent perhaps the single most influential input in a cost study. All other things being equal, a move from a 75 percent fill for copper feeder cable, for example, to a ***CONFIDENTIAL ***** END CONFIDENTIAL*** percent fill increases the cost for this portion of the network by a factor of ***CONFIDENTIAL **** END CONFIDENTIAL*** – more than doubling the cost.[45] Given the change in fill factors illustrated above, it is no wonder that CenturyTel's costs for 2-Wire Analog loops in 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***.

Q. DO YOU BELIEVE CENTURYTEL SHOULD BE ALLOWED TO USE "ACTUAL" FILL FACTORS AS OPPOSED TO EFFICIENT, FORWARD-LOOKING FILL FACTORS?

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

Q. DO THE FCC'S RULES CONTEMPLATE THE USE OF "ACTUAL" FILLS?

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

> Per-unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage); that is, the per-unit costs associated with a particular element must be derived by dividing the total cost associated with the element by a reasonable projection of the actual total usage of the element.[46]

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

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[46] *Local Competition Order*, ¶682.

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

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

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[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)

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

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

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

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

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

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

[48] Davis Direct at 15.

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

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

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

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

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

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

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

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[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.

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Exchange	4-Wire Cost	DS1 Cost	Percentage

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The reality is that once one peels back the DS1 Loop Cost Study, one finds that fundamentally it incorporates in the entirety of the 4-Wire Analog Loop cost but then adds on Smart Jack, Office Repeater, Field Repeater, MDF, and DS1 Cross-connect and other miscellaneous fiber-based costs.

Q. HAVE YOU REVIEWED THE DS1 LOOP COST STUDY TO DETERMINE WHY CENTURYTEL IS BASING SO MUCH OF ITS COSTS ON THE 4-WIRE ANALOG LOOP COST STUDY?

A. Yes. There are substantial calculations that are made within the DS1 Loop Cost Study that are effectively ignored in the approach to how CenturyTel has used the cost study.

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

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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.

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

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

The 4-Wire Analog Loop suffers from a similarly disastrous comparison. According to the DS1 Loop Cost Study development of a 4-Wire Loop, the cost 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.

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

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

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

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[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.

Study by simply subtracting out the 4-Wire Loop cost that the DS1 Loop Cost Model calculated and inserting in the 4-Wire Loop cost that CenturyTel separately calculated.[58] The reality is that there simply does not appear to be any reasonable logic to why the fiber cost calculations inside the DS1 Loop cost model have been turned off or why the 4-Wire Loop cost calculations inside the model have been ignored. There certainly is no clear explanation provided in the cost study or testimony offered by CenturyTel.

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

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

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[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.

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

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

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

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

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

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

A. Yes. As noted earlier in this testimony, there are many reasons to believe that the annual cost factors that CenturyTel is using are overstated. These overstated cost factors have not been revised in my restated DS1 Loop rate above for the equipment retained in CenturyTel's DS1 Loop Cost Study because it is not possible for me to do so without access to CenturyTel's cost factor study. Further, there are other input related problems with CenturyTel's cost study that would need further adjustments. Nonetheless, it is a much more reasonable approximation of the real costs for a DS1 Loop than what 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 study[59] to the average loop distance that CenturyTel incorporated into the DS3 Loop cost study[60] – they are both

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[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.

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

Q. WHY IS THIS PARTICULARLY A PROBLEM?

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

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

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

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

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

E. DISCUSSION OF NONRECURRING COSTS

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

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

Q. ARE THESE NRC RATES "MISSOURI-SPECIFIC" AS MR. HANKINS CLAIMS?[62]

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

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61 Hankins Direct at 5.

62 Hankins Direct at 6.

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

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

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

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

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

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

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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/$FILE/YFPS47JZFEMOE$I0.txt

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

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

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

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

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

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

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

[67] Hankins Direct at 8-9.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[68] Miller Direct at 80-81.

> provider serving the customer has refused to port the number, stating that this is Location Portability (porting outside the Rate Center).
>
> The consensus of the group was that PAETEC should be allowed to provide the same service, RCF or FX, to this customer as the current provider does.[69]

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

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

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

[69] 11-05 Final LNPA Minutes, p. 20.

Q. DOES THIS ARRANGEMENT "PLACE AN UNREASONABLE BURDEN ON CENTURYTEL" AS MR. MILLER CLAIMS?[70]

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

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

[70] Miller Direct at 84.