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Case No: TO-2005-0035
Date Testimony Prepared: January 21, 2005

SOUTHWESTERN BELL TELEPHONE, L.P. D/B/A SBC MISSOURI

CASE NO. TO-2005-0035

SURREBUTTAL TESTIMONY

OF

DR. DEBRA J. ARON

Evanston, Illinois
January 21, 2005

NP

Exhibit No. 2
Date Prepared Case No. TO-2005-0035
Reporter

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Second Investigation into the State of
Competition in the Exchanges of Southwestern Bell) Case No. TO-2005-0035
Telephone, L.P., d/b/a/ SBC Missouri.)

AFFIDAVIT OF DEBRA J. ARON

STATE OF ILLINOIS

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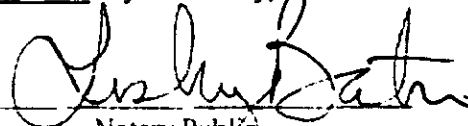
CITY OF CHICAGO

I, Debra J. Aron, of lawful age, being duly sworn, depose and state:

1. My name is Debra J. Aron. I presently hold the position of Director at LECG, LLC.
2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief.


Debra J. Aron

Subscribed and sworn to before this 5th day of January, 2005


Notary Public

My Commission Expires: 6/25/07

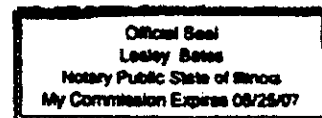


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CASE NO. TO-2005-0035
SOUTHWESTERN BELL TELEPHONE, L.P. D/B/A SBC MISSOURI
SURREBUTTAL TESTIMONY OF DR. DEBRA J. ARON

INTRODUCTION

**Q.1 ARE YOU THE SAME DEBRA J. ARON WHO FILED DIRECT TESTIMONY
IN THIS PROCEEDING?**

A.1 Yes I am.¹

Q.2 WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

**A.2 My surrebuttal testimony responds to the economic arguments of Staff witnesses Bill
Peters² and Adam McKinnie;³ Office of Public Counsel witness Barbara A.
Meisenheimer;⁴ Socket Telecom witness R. Matthew Kohly;⁵ and NuVox witness
Edward J. Cadieux.⁶**

¹ Direct Testimony of Dr. Debra J. Aron on Behalf of SBC Missouri, before the Missouri Public Service Commission, Case No. TO-2005-0035, October 29, 2004. (Hereafter *Aron Direct Testimony*.)

² Rebuttal Testimony of Bill Peters on Behalf of the Missouri Public Service Commission (Utility Operations Division), before the Missouri Public Service Commission, Case No. TO-2005-0035, December 17, 2004. (Hereafter *Peters Rebuttal Testimony*.)

³ Rebuttal Testimony of Adam McKinnie on Behalf of the Missouri Public Service Commission (Utility Operations Division), before the Missouri Public Service Commission, December 17, 2004, Case No. TO-2005-0035. (Hereafter *McKinnie Rebuttal Testimony*.)

⁴ Rebuttal Testimony of Barbara A. Meisenheimer on Behalf of the Office of Public Counsel, before the Missouri Public Service Commission, Case No. TO-2005-0035, December 17, 2004. (Hereafter *Meisenheimer Rebuttal Testimony*.)

⁵ Rebuttal Testimony of R. Matthew Kohly on Behalf of Socket Telecom, LLC, before the Missouri Public Service Commission, Case No. TO-2005-0035, December 17, 2005 [sic]. (Hereafter *Kohly Rebuttal Testimony*.)

⁶ Rebuttal Testimony of Edward J. Cadieux on Behalf of NuVox Communications of Missouri, Inc., before the Missouri Public Service Commission, Case No. TO-2005-0035, December 17, 2005 [sic]. (Hereafter *Cadieux Rebuttal Testimony*.)

1 Q.3 DO YOU HAVE ANY PRELIMINARY AND GENERAL OBSERVATIONS
2 REGARDING THE WITNESS TESTIMONY TO WHICH YOU ARE
3 RESPONDING?

4 A.3 Yes, I do. First, these witnesses seem to focus more on the individual trees and ignore the
5 forest in applying and interpreting their analyses. Second, although these witnesses filed
6 testimony that is marked as "rebuttal," in many instances they make arguments that I
7 addressed in my direct testimony, without addressing in any substantive way the contrary
8 testimony that I already provided.

9
10 Q.4 WHAT DO YOU MEAN WHEN YOU SAY THAT OFFICE OF THE PUBLIC
11 COUNSEL ("OPC") AND STAFF WITNESSES LOSE THE FOREST FOR THE
12 TREES?

13 A.4 My observation is that OPC, Staff, and the witnesses from competitive local exchange
14 carriers ("CLECs") boil down the competitive analysis to the mechanical exercise of
15 counting facilities-based, circuit-switch landlines in an exchange. My surrebuttal
16 testimony will respond to this approach, and will describe why, for a variety of reasons, it
17 is a woefully inadequate methodology and inconsistent with the accepted principles of
18 competition analysis that I described in my direct testimony. The overriding reason that it
19 is inadequate, however, and what I mean by losing the forest for the trees, is that the
20 analysis simply does not capture the major changes that are occurring in the
21 telecommunications industry today.

1 With the ultimate demise of local switching (and therefore unbundled network
2 element platform, or "UNE-P") over what is expected to be a lengthy transition period, as
3 a regulated, underpriced network element, the industry is moving forward to the next,
4 greater, level of competition. Unbundled switching (and therefore UNE-P) can only be
5 removed from the list of required unbundled network elements because reasonably
6 efficient CLECs are not impaired without it. That means that there remain viable
7 alternative means of serving the market without UNE-P at regulated rates. These
8 alternatives include self-provision of switching together with the ILEC's UNE loops;
9 purchasing of switching from third party providers such as other CLECs at market-based
10 prices in combination with the ILEC's UNE loops (or from the ILEC itself at
11 commercially agreed upon rates); purchasing of end-to-end service from CLECs or other
12 providers with their own facilities; use of alternative technologies, such as VoIP;
13 purchasing of investment into their own end-to-end facilities using wireless or wireline
14 technologies; and use of the ILEC's resale offerings. Not only will carriers continue to
15 have options available through regulatory and market avenues, but UNE-P will,
16 apparently, be retained for some time during the transition.

17 Hence, the witnesses' focus on a snapshot of CLEC line counts and "market
18 share"—especially, as I will discuss, in conjunction with their dismissal of UNE-P—
19 misrepresents and mischaracterizes the competitive state of the market. One cannot
20 dismiss UNE-P, and one cannot fully understand the importance of UNE-P in a
21 competitive assessment of the market today without understanding its role in the market
22 over the last several years. During the 2000-2004 period, which was the period of

1 ascendancy of UNE-P, I was very involved with examining UNE prices and costs. I
2 found that in most areas of the country (including Missouri), UNE-P was severely
3 underpriced relative to ILEC actual costs.⁷ Economic theory told us what the result of
4 such underpriced UNEs would be: a ravaging of the incentive to invest in facilities. And,
5 in fact, it is no secret that capital spending in the entire telecommunications industry has
6 plummeted during the past few years.⁸ One significant, although certainly unintended,
7 consequence of this situation was the disadvantaged position in which facilities-based
8 CLECs were placed. They had to compete with entrants who obtained network elements
9 at prices that simply did not reflect economic reality and, effectively, amounted to a
10 subsidy from incumbents to UNE-P competitors.

11 The tremendous technological advances in the market today, along with the DC
12 Circuit Court's remand of the FCC's *Triennial Review Order* both reinforce the
13 competitive direction in the market and will enhance competition by alleviating artificial
14 constraints on facilities-based competition. In this setting it appears that competitors are
15 embracing new technology as the means for entering into the market and growing.
16 Technological advances are making viable voice over Internet Protocol ("VoIP"),
17 especially from cable companies but also from providers such as AT&T and Vonage.
18 Wireless services are also exerting meaningful pressure on traditional circuit-switched
19 telephony.

⁷ Debra J. Aron, E. Gerry Keith, and Francis X. Pampush, "State Commissions Systematically Have Set UNE Prices Below Their Actual Costs," white paper, November 2003.

⁸ See, e.g., Paul Sagawa, Tero Kuittinen, and Ashish Sharma, "Telecom Equipment: Carrier Competition and Cash Fueling Spending Acceleration; No Threat to Dividends," Bernstein Research Call Analyst Report, November 30, 2004, p. 12.

1 While UNE-P may have been devastating to telecommunications infrastructure
2 investment, it has certainly imposed significant competitive pressure on incumbents, and
3 has permitted carriers to build a customer base and brand awareness in the market. The
4 development of competition in the last few years has also demonstrated that many
5 customers are willing to opt for a new service provider. It appears to me that the public
6 generally is comfortable with the idea of competitive telephone service. This notion is
7 amplified by the wireless marketplace, which has taught consumers that there are a lot of
8 options for wireless—why not also for wireline? In other words, I believe that the
9 evidence shows that consumers are willing to change service providers, as long as the
10 new firm offers something of value.

11 The confluence of these three factors: improved economics for new carriers, the
12 commercial emergence of VoIP technology and the strengthening and improvements of
13 wireless technologies, and the willingness of customers to change providers sets the stage
14 for increasingly vigorous competition. What is critical to note is that each of these
15 contributing factors has come about as regulation has been reduced. The technological
16 drive in VoIP is fueled by the light touch or non-regulation that these services have
17 received at the FCC.⁹ Wireless continues to improve in price, quality, functionality, and
18 penetration without regulation of prices or quality. As a result, there are nearly as many
19 wireless connections than wireline connections in the U.S.¹⁰ and wireless minutes exceed

⁹ See, e.g., "Written Statement of Michael K. Powell, Chairman, Federal Communications Commission on Voice over Internet Protocol," before the Committee on Commerce, Science, and Transportation (United States Senate), February 24, 2004, pp. 15-16.

¹⁰ Federal Communications Commission, *Trends in Telephone Service*, May 2004, Table 7.1 (Hereafter, *FCC Trends*); and CTIA-The Wireless Association™, *CTIA's Semi-Annual Wireless Industry Survey Results: June 1985 – June 2004*, downloaded from www.wow-com.com/content/index.cfm/AID/10030.

1 traditional circuit-switched long-distance minutes.¹¹ As VoIP develops, customers are
2 moving there, too. As a result, the old relationship between traditional landline telephone
3 service and economic activity has been broken. Analysts at Deutsche Bank are expecting
4 the regional Bell companies to lose about 6.5 *million* lines each year in 2005, 2006, 2007,
5 and 2008, despite a growing economy.¹² Where are these lines going? Given an ever-
6 more plugged-in society, it is implausible that these losses reflect customers who seek to
7 toss it in and move off the grid. The answer is obvious. These are lines that are going to
8 cable companies, to CLECs, to VoIP companies, and to wireless companies, or even to
9 non-voice communications over broadband. Cable companies are expected to have
10 additions net of losses of 500,000 to 600,000 voice telephony lines *per quarter* this year,
11 and net additions on the order of 800,000 to 900,000 lines *per quarter* in 2006, according
12 to Deutsche Bank.¹³ Add to this the "independent" VoIP companies such as Vonage with
13 net adds of 150,000 to 300,000 per quarter,¹⁴ and wireless companies adding 5 *million*
14 subscribers per quarter in the latest available two quarters,¹⁵ and one can see that
15 intermodal competition is not a promise, it is here.

¹¹ *FCC Trends*, Tables 10.1 and 11.3. See, also, infoSync World, Jørgen Sundgot "More mobile minutes in the U.S.," May 13, 2003, downloaded from www.infosyncworld.com/news/n/3571.html.

¹² Viktor Shvets, Nigel Coe, and Andrew Kieley, "Crossing the Rubicon, Act II: Indian Summer Wanes," Deutsche Bank Global Equity Research Analyst Report—Wireline Industry, November 26, 2004, p. 20. (Hereafter *Deutsche Bank November 2004*.)

¹³ *Deutsche Bank November 2004*, p. 18.

¹⁴ *Deutsche Bank November 2004*, p. 20. Indeed, Vonage alone claims that it added 115,000 lines in the fourth quarter of 2004, and added a total of 300,000 lines during the year so that it served, at year's end, over 400,000 lines. (See, "Vonage Crosses 400,000 Line Mark: Biggest Broadband Telephony Provider Netted More than 300,000 Lines in 2004," Vonage Press Release, January 5, 2005.)

¹⁵ Computed from December 2003 through June 2004 data from www.ctia.org.

1 The Telecommunications Act has provided a framework for intra- and intermodal
2 competition. For intramodal competition, the Telecommunications Act requires that the
3 traditional network be unbundled where it is "necessary" or would otherwise "impair"
4 competitors not to have access to the element. A cost basis for the prices for these
5 wholesale elements is part of that requirement. To obtain the benefits of the Act,
6 however, retail regulation must be eliminated. Competition can do the work at that level.
7 Indeed, it makes no economic sense at all to regulate at two levels: wholesale and retail.
8 Given the structure of the Act, the development of intermodal competition, wholesale
9 regulations, and general legal safeguards, it is unlikely, in my view, that SBC would have
10 the capability or incentive to engage in any type of pricing practice that would be harmful
11 to consumers or to the development of competition. That is not to say that some prices
12 may not increase. Some prices probably should increase. But increases, should they
13 occur, will be based on the economic fundamentals of cost, technology and consumer
14 preferences.

15 At the end, "losing the forest for the trees" simply means that Staff, OPC, and the
16 CLEC intervenors wish to play out retail rate regulation beyond its legitimate economic
17 need instead of seriously looking at and evaluating the competitive implications of the
18 obvious developments in the telecommunications market. The Commission is at a
19 junction. The decision is whether to invite the full benefits of competition into the state
20 of Missouri by letting competitors compete on the basis of product and pricing, or, in the
21 alternative, count the facilities-based, traditionally-provided lines, moving incrementally,
22 and ignoring the path by which we arrived at the current state and its implications, with

1 the effect of keeping the lid on, and possibly damaging the continued growth and
2 development of, vigorous, welfare-enhancing competition between CLECs, ILECs, cable,
3 VoIP, and wireless providers.
4

5 **Q.5 WOULD YOU PLEASE PROVIDE A FEW EXAMPLES OF WHERE**
6 **WITNESSES DID NOT SEEK TO REBUT EVIDENCE OR ARGUMENTS**
7 **PRESENTED THAT WERE CONTRARY TO THEIR VIEWS?**

8 A.5 Yes, I will point out a few of these instances. In her testimony, OPC witness
9 Meisenheimer advocates the use of the Herfindahl-Hirschman Index (HHI) of industrial
10 concentration and proceeds to calculate HHI scores in various (ad hoc) ways.¹⁶ In my
11 direct testimony, however, I described why the HHI index is not an accurate indicator of
12 market power in this context and is fundamentally unsuitable for evaluating "effective
13 competition."¹⁷ I noted that the HHI is designed for merger analysis, not applications
14 such as this one, and can be highly misleading in this application. For example, the HHI
15 can indicate *increased* industry concentration (or no change in concentration at all) in
16 situations where alternative providers *increase* their market shares and SBC Missouri's
17 market share *falls*. The HHI can also indicate *decreased* concentration in situations
18 where the incumbent *increases* its market share and competitors' shares *fall*. I provided
19 examples of these phenomena in my direct testimony.¹⁸ I also pointed out that the
20 Commission has concluded that the HHI is not relevant to its assessment of effective

¹⁶ Meisenheimer Rebuttal Testimony, pp. 21-22.

¹⁷ Aron Direct Testimony, pp. 65-66.

¹⁸ Aron Direct Testimony, pp. 65-67.

1 competition.¹⁹ OPC witness Meisenheimer did not even acknowledged my extensive
2 discussion of the defects of the HHI analysis for this application, let alone seek to respond
3 to my points, nor did she acknowledge the Commission's prior rejection of the HHI.

4 Similarly, Staff, CLEC, and OPC witnesses focus their testimonies on a
5 superficial and narrow application of market share analyses. In my direct testimony, I
6 devoted a section to describing some of the limitations of using market share to evaluate
7 competition.²⁰ In that discussion, I pointed out that when entry and expansion barriers are
8 low, even a minimal share can be consistent with effective competition. As a result, an
9 evaluation of entry and expansion barriers is critical to assessing competition. My direct
10 testimony also described why, as a result of the 1996 Telecommunications Act, entry and
11 expansion barriers in Missouri are low, and intermodal competition must be part of a
12 serious competitive analysis.²¹ The Staff witnesses Peters and McKinnie do not even
13 acknowledge the role that an evaluation of entry or expansion barriers must have in an
14 evaluation of competition. In fact, they do not mention entry or expansion barriers even
15 once in their respective testimonies either to acknowledge the importance of such an
16 analysis or to refute my testimony. They certainly offer no analysis or discussion of the
17 effect that low entry or expansion barriers would have regarding a proper interpretation of
18 their purported market share statistics. This is an unacceptable means of analysis both as
19 a matter of economics, and also according to my reading of the Missouri Revised Statutes'

¹⁹ Report and Order, *In the Matter of the Investigation of the State of Competition in the Exchanges of Sprint Missouri, Inc.*, before the Public Service Commission of the State of Missouri, Case No. IO-2003-0281, Issued December 4, 2003, pp. 29-30. (Hereafter *2003 Sprint Missouri Competitive Reclassification Order*.)

²⁰ *Aron Direct Testimony*, pp. 58-69.

²¹ *Aron Direct Testimony*, pp. 49-58.

1 ("RSMo's") requirements. For example, (1) the RSMo does not mention market share in
2 determining "effective competition;"²² (2) the Commission previously determined that
3 specific market share thresholds should not be utilized in determining effective
4 competition;²³ and (3) the RSMo *does* require consideration of economic or regulatory
5 barriers to entry.²⁴ Yet, Staff and Mr. Kohly proceed as though (in Mr. Kohly's words),
6 "the best way to determine [whether there is effective competition in Missouri] is by
7 performing an analysis of market share data."²⁵ Uninformed by an analysis of entry and
8 expansion barriers, one cannot draw meaningful inferences from their market share
9 analysis.

10 As another example, I will note that Mr. Cadieux provides data and examples of
11 competition that he gleaned from the FCC's *Triennial Review Order*. The data that he
12 refers to on intermodal competition in Part II of his rebuttal testimony are from 2002. In
13 light of the sea-change in the viability and importance of VoIP in the market that has
14 occurred in the last year, however, data from 2002 are all but meaningless. He did not
15 comment on any of the more recent, and Missouri-specific data provided by the SBC
16 witnesses.

17 To the extent that these witnesses acknowledge that methods of evaluating
18 competition other than market share even exist, it is fair to say that these approaches are

²² RSMo Section 386.020(13).

²³ See, Opinion: Report and Order, *In the Matter of the Investigation of the State of Competition in the Exchanges of Southwestern Bell Telephone Company*, before the Public Service Commission of the State of Missouri, Case No. TO-2001-467, 2001 Mo PSC Lexis 1770, December 27, 2001, p. 7. (Hereafter *2001 SBC Missouri Competitive Reclassification Order*.)

²⁴ RSMo Section 386.020(13).

²⁵ *Kohly Rebuttal Testimony*, p. 6. (Note: Mr. Kohly did not provide page numbers. These numbers use the convention of beginning pagination after the cover page.)

1 lightly dismissed without substantive analysis. For example, Staff dismissed line loss
2 data that was not tied to specific exchanges.²⁶ Yet, because the economic market is likely
3 to encompass more than one exchange, aggregate data can be informative. Staff did not
4 find useful the information regarding CLEC capacity, which bears on the issue of CLECs'
5 ability to expand.²⁷ Staff dismissed the evidence on advertising expenditures,²⁸ though
6 advertising is evidence of the availability of services. Indeed, Mr. Peters even found it
7 unimpressive that there were 16 facilities-based CLECs operating in Missouri.²⁹ In a
8 network industry where scale is important, 16 is a crowd. My overall conclusion is Staff
9 ignored probative evidence regarding CLEC and intermodal competition.

10
11 **Q.6 WHAT ARE YOUR OTHER CONCERNS WITH STAFF'S, OPC'S, AND THE**
12 **CLECS' FOCUS ON ITS MARKET SHARE APPROACH?**

13 A.6 I have three main concerns. The first is that, even aside from the defects in the witnesses'
14 analysis and interpretation of market share as a general economic matter, market share is
15 simply an inappropriate and misleading indicator of "effective competition" under the
16 particular terms of the RSMo. The RSMo requires a determination of efficient
17 competition (in part) by evaluating the "extent to which services are available from
18 alternative providers."³⁰ Market share does not measure the extent of *availability*, but

²⁶ *Peters Rebuttal Testimony*, p. 22.

²⁷ For example, Mr. Peters argues that CLEC switching capacity amounts to the "potential" to compete, but not actual competition, by which he seems to mean, solely, the number of lines served by CLECs. *Peters Rebuttal Testimony*, p. 7.

²⁸ *McKinnie Rebuttal Testimony*, p. 7.

²⁹ *Peters Rebuttal Testimony*, p. 22.

³⁰ RSMo Section 386.020(13)(a).

1 instead measures the extent to which CLECs have had success in winning lines. A
2 CLEC's market share is no more an accurate quantitative indicator of the availability of
3 its services than is the market share of Honda (which is roughly 8 percent in the U.S.³¹)
4 an indicator of the availability of Honda automobiles (which are virtually ubiquitous in
5 the U.S.). Indeed, quantitatively, market share will virtually always be less than
6 availability. Using a success-based metric such as market share as a decision criterion to
7 evaluate availability without any other serious analysis is simply incorrect and will result
8 in conclusions that are biased against a finding of "effective competition" under the terms
9 articulated in the law.
10

11 **Q.7 WHAT IS YOUR SECOND CONCERN?**

12 **A.7** My second concern is that Staff utilizes the market share measure during a time of
13 substantial market upheaval without properly accounting for the competitive effects of
14 these market changes. The local telecommunications marketplace is only now beginning
15 to unwind the damaging effects of the FCC's illegal rules that unduly promoted the use of
16 UNE-P. Based on my general industry knowledge and my analysis of UNE-P prices and
17 costs around the country, the widespread availability of UNE-P at below-cost prices
18 during the past few years has harmed the development of other forms of competitive entry
19 and harmed the deployment of telecommunications infrastructure. With the DC Circuit
20 Court's remand of the FCC's *Triennial Review Order*, and indications of the FCC's

³¹ See, e.g., "How Honda Is Stalling In The U.S.," BusinessWeek Online, May 24, 2004, Downloaded January 18, 2005 from http://yahoo.businessweek.com/magazine/content/04_21/b3884079.htm.

1 subsequent response,³² the industry appears to be transitioning to a more economically
2 rational policy toward unbundling under the Telecommunications Act and, possibly, to
3 more rational unbundled network element prices as well. Despite these welcome
4 changes, the transition poses particular problems for the use of market share to gauge the
5 level of competition.

6 Mr. Peters appears to recognize that the transition in the industry undermines the
7 value of an unvarnished application of a market share analysis. He attempts to adjust for
8 these changes by creating a "but-for" world that measures the number of lines served by
9 competitors in the absence of UNE-P (and resale).³³ That is, he subtracts from the
10 number of CLEC lines the number of UNE-P (and resale) lines, and identifies the
11 remaining lines as the (numerator of the) CLEC's market share. However, a "but for"
12 world is not so easily created as this. The simple exclusion of UNE-P from the market
13 share measure, on its own, is not appropriate, even if the FCC were to order the
14 immediate and complete abandonment of UNE-P (which does not appear to be its intent).
15 The reason is that the availability of UNE-P during the last few years profoundly affected
16 the attractiveness of other competitive entry strategies, such as resale, self-supply,
17 intermodal competition, and UNE-L. The availability of UNE-P dampened, and in some
18 cases reversed, the growth of resale and investment in facilities-based services. Put

³² "FCC Adopts New Rules for Network Unbundling Obligations of Incumbent Local Phone Carriers," FCC Press Release, December 15, 2004. (Hereafter *FCC UNE Rules Press Release*.)

³³ Mr. Peters and Mr. McKinnie also exclude resold lines, but for a different reason. Mr. Peters and Mr. McKinnie argue that resold lines do not provide competitive pressure and therefore should not be included in an assessment of effective competition. (See, *Peters Rebuttal Testimony*, pp. 17-18. Also, *McKinnie Rebuttal Testimony*, pp. 6-7 (acknowledging only facilities-based lines.) This is another example of Staff failing to respond to my direct testimony where I described why resale should be included in such an analysis. I will discuss resale in more detail later in this surrebuttal testimony.

1 differently, the growth of UNE-P-based lines came at the expense of the other means of
2 supply.

3 This means that the use of resale, UNE-L, and self-supply by CLECs today is not
4 independent of the amount of UNE-P in the market today. It is likely that if UNE-P at
5 TELRIC prices had not existed, the use and success of resale, UNE-L, self-supply, and/or
6 possibly intermodal competition would be significantly higher than they are today and,
7 therefore, one cannot properly adjust the market share statistic simply by removing UNE-
8 P, as Mr. Peters does³⁴ (and Mr. McKinnie³⁵ and Mr. Kohly do³⁶) and draw meaningful
9 inferences about the availability and viability of the remaining strategies by looking
10 simply at their line counts in the market today. Neither Mr. Peters, Mr. McKinnie, nor
11 Mr. Kohly made any offsetting adjustments in their "but for" market share calculations
12 when they removed the UNE-P and resale lines, nor acknowledged in any way that UNE-
13 P dampened or, possibly, reversed the trends of growth in other entry strategies that
14 existed before UNE-P became readily available. This is a fundamental problem with the
15 use of market shares in this context, and I cannot think of a viable way to modify the
16 market share to correct for this bias.

17 Moreover, if it was the intent if these witnesses to remove UNE-P to make the
18 market share more forward looking, they entirely neglected to account for the anticipated
19 growth today of the other entry strategies, the commitments that carriers have made to

³⁴ *Peters Rebuttal Testimony*, pp. 17-18.

³⁵ *McKinnie Rebuttal Testimony*, pp. 6-7.

³⁶ *Kohly Rebuttal Testimony*, pp. 9-12.

1 other technologies, the announcements carriers have made regarding their transition
2 plans, or the likelihood of customers migrating to other CLECs.

3 Already, we have seen two CLECs, McLeodUSA and XO, announce their desire
4 to provide unbundled local switching in Missouri on a commercial basis as an alternative
5 to SBC Missouri's UNE-P.³⁷ In its answer to a data request, MCI has confirmed that its
6 agreement with McLeodUSA to migrate MCI UNE-P customers to McLeodUSA's
7 network covers Missouri.³⁸ The potential impact of this agreement can be seen in the
8 Highly Confidential data request answer MCI provided to Staff and SBC Missouri in this
9 case outlining its customer line count as of the end of 2004, broken down by the method
10 MCI is currently serving these customers (UNE-P, UNE-L, and full facilities based).³⁹

11 To the extent that the FCC removes unbundled local switching from the list of
12 unbundled network elements, it is precisely because CLECs are not "impaired" in their
13 ability to compete without it; the witnesses market share adjustment ignored all of these
14 factors and was therefore notably one-sided and myopic.

15 I would also observe that Staff's implicit assumption that UNE-P is going to
16 disappear immediately and completely is not consistent with the FCC's recent
17 pronouncements. It appears likely that there will be a transition period during which

³⁷ See, "McLeodUSA Enters Multi-Year Agreement with MCI to Provide Local Service on the McLeodUSA Network," McLeodUSA Press Release, December 16, 2004. (See, www.mcleodusa.com.) (Hereafter *McLeodUSA Press Release*.) See, also, "XO Communications Launches Wholesale Local Voice Services," XO Press Release, July 12, 2004. (www.xo.com.) In addition, another Missouri CLEC, Big River, announced the installation of a MetaSwitch Class 5 softswitch. (See, "MetaSwitch and Big River Deploy Softswitch in Record Time," Big River Telephone Company Press Release, July 2004.) (A copy of Big River's Highly Confidential data request answers to SBC Missouri are attached as Aron Schedule 2HC.)

³⁸ A copy of MCI's data request answer is attached in Aron Schedule 1HC. (See MCI's response to DR No. 4.)

³⁹ A copy of MCI's Highly Confidential data request answer to Staff DR No. 0072 is contained in Aron Schedule 1HC.

1 UNE-P will be maintained and carriers and customers can transition to alternate forms of
2 service.

3
4 **Q.8 WHAT IS YOUR THIRD CONCERN?**

5 A.8 The witnesses who present market shares do not seem to make a serious attempt to define
6 the market, but instead simply compute market share on an exchange-by-exchange basis.
7 Market definition is not an incidental, academic exercise but rather is fundamental to
8 drawing reasonable inferences about competition from the market share results. There
9 are three market definition issues that would require serious consideration in this case if
10 one were to try to make reasonable use of a market share analysis: which services should
11 be considered to be "in the market;" what is the relevant geographic market; and how
12 should each provider's quantity of participation in the market be measured.

13 Regarding the first question, clearly the incumbent's market share is critically
14 sensitive to whether wireless service is included in the market or not. The incumbent's
15 share of the market will be significantly lower in a market that includes wireless service
16 than one that does not. While there are disputes in this case as to whether wireless is a
17 full substitute for primary line wireline service, there should be no question that wireless
18 service is an important substitute for second lines. Hence, wireless service clearly should
19 be included in a market share analysis for second line service. Not only do the witnesses
20 exclude wireless entirely, they fail to analyze second lines as a separate service at all.

21 Ignoring and excluding wireless entirely from the quantitative analysis and then
22 relying entirely on that quantitative analysis to draw conclusions clearly does not properly

1 reflect the state of the market, nor wireless carriers' forward-looking competitive
2 significance, and therefore cannot be correct.
3

4 **Q.9 HOW IS GEOGRAPHIC MARKET DEFINITION IMPORTANT?**

5 A.9 Staff's analysis of market share is performed exchange-by-exchange. I understand that
6 the law requires the Commission to make exchange-by-exchange decisions to reclassify
7 services as competitive. This does not imply, however, that the correct unit of economic
8 analysis for understanding market power and competition in an exchange is the exchange
9 itself. For example, if the correct geographic market is a cluster of exchanges, or even the
10 entire state (as in Sprint's Centrex case), the appropriate cluster of exchanges or entire
11 state would be the correct geographic market for market share analysis. The Commission
12 itself understood this when it determined in its 2003 Sprint reclassification order that
13 Sprint's Centrex service was effectively competitive on a statewide basis.⁴⁰ Any market
14 share analysis of an exchange, must be conducted in light of the surrounding exchanges
15 and the likelihood that a carrier will serve or expand into geographically contiguous areas.
16 One can assess the degree of competition in an exchange by looking at the characteristics
17 of competition in the relevant geographic market in which that exchange lies, even if that
18 market is larger than an exchange; and indeed, if the relevant market were larger than an
19 exchange, then it would be incorrect to do otherwise.

20 Determining the proper geographic market requires consideration of variety of
21 market and institutional factors; but rather than elaborating on that here, I need only note

⁴⁰ 2003 Sprint Missouri Competitive Reclassification Order, pp. 39-41.

1 that Staff performed no such analysis and therefore Staff's exchange-by-exchange market
2 shares cannot be relied upon as economically meaningful.

3
4 **Q.10 DO YOU HAVE ANY COMMENT ON USING CLEC- AND SBC-SERVED LINES**
5 **TO COMPUTE MARKET SHARE?**

6 A.10 There are many metrics that are acknowledged in antitrust practice as correct and
7 reasonable ways to measure market share, depending on the market characteristics. These
8 generally include quantity of output (lines, in this case, or calls), revenues, and capacity.
9 In this market, a line-based approach suffers from two fundamental problems that hamper
10 interpretation. The first is that a line-based metric does not properly account for the role
11 that physical capacity (e.g., through collocation locations or switching capacity) has in
12 providing competition in the market. The second is that a line-based metric does not
13 properly account for the fact that CLECs generally seek to serve only profitable customers
14 and not those customers who buy only a subsidized "Plain Old Telephone Service" line.

15 In its discussions on the use of market share to evaluate competitiveness, the
16 Department of Justice's *Horizontal Merger Guidelines* note that market shares are to be
17 calculated using the best indicator of firms' future competitive significance; and that
18 physical capacity (as opposed to revenues or units) "will be used if it is these measures
19 that most effectively distinguish firms."⁴¹ None of the witnesses defends the use of a
20 line-based approach. Because of the importance of capacity in this market, the use of
21 lines simply does not provide an adequate indication of firms' future competitive

⁴¹ 1992 *Horizontal Merger Guidelines* [With April 8, 1997, Revisions to Section 4 on Efficiencies], U.S. Department of Justice, April 8, 1997, p. 11. (Hereafter *Merger Guidelines*.)

1 significance. This is especially problematical because, as I have discussed, Staff does not
2 seek to bolster their results by providing any substantive analysis of entry and expansion
3 barriers.

4 Similarly, the line-based approach does not account for the fact that some lines (or
5 customers) are more profitable than others. CLECs can, and do, create their service
6 bundles and pricing plans to attract higher-than-average spending (or at least, discourage
7 from subscribing those customers who are unprofitable). As a result, a simple line count,
8 especially one that is then deflated (i.e., divided by) both customers that the CLEC wants
9 and customers that the CLEC does not want, understates the competitive significance of
10 the CLECs' successes. Revenue-based measures of market share would be more likely to
11 capture the competitive significance of CLECs due to this effect.
12

13 **RESPONSE TO MR. PETERS**
14

15 **Q.11 DR. ARON, PLEASE PROVIDE AN OVERVIEW OF YOUR MAIN CONCERNS**
16 **WITH MR. PETERS' REBUTTAL TESTIMONY.**

17 **A.11** First, Mr. Peters' advocacy of use of market share metrics suffers from all of the defects
18 and inadequacies that I discussed in my introductory comments. Second, Mr. Peter's
19 effective dismissal of resale, UNE-P, collocations, wireless, VoIP, and carrier count
20 information as irrelevant reflects a misapplication of the instructions of RSMo and of
21 economic principles.
22

1 Q.12 ON PAGE 9 OF HIS REBUTTAL TESTIMONY, MR. PETERS ARGUES THAT
2 PRICING FLEXIBILITY WILL NOT NECESSARILY ENHANCE
3 COMPETITION NOR WILL IT "AUTOMATICALLY PRODUCE"
4 COMPETITION. PLEASE COMMENT.

5 A.12 I believe that Mr. Peters fails to appreciate the wisdom of the de-regulatory philosophy
6 embodied in the provisions of the RSMo governing this proceeding. While of course it is
7 trivially true that pricing flexibility does not "automatically produce" competition, it is
8 also true that pricing flexibility is necessary for the full development of competition and
9 its benefits for consumers. As I noted in my direct testimony, FCC Chairman Michael
10 Powell correctly admonished policy makers to treat deregulation *not* as a "dessert" or a
11 reward for creating competition, but instead as a "critical ingredient to facilitate
12 competition."⁴² There are several economic reasons for this.

13 As I explained in my direct testimony, retail price regulation that requires pre-filed
14 tariffs provides an early warning system to competitors of possible upcoming price
15 changes.⁴³ Under the current regulatory scheme, proposed price changes must be filed
16 with the Commission 30 days before they are instituted.⁴⁴ This provides competitors with
17 information that can help them respond to these changes and make them less effective.
18 By reducing the effectiveness, or profitability, of a potential price change, the firm's
19 incentive to make that change in the first place is reduced. If this is a restructuring or

⁴² Aron Direct Testimony, p. 82 (citing to Mary Mosquera, "FCC Chief: Deregulation Will Grease Competition," InternetWeek.Com, February 7, 2001; <www.internetwk.com/story/INW20010207S0001>, accessed December 8, 2002).

⁴³ Aron Direct Testimony, p. 77.

⁴⁴ RSMo Section 392.245.4(5).

1 reduction of price, discouraging such price changes harms consumers by denying them a
2 more beneficial price plan. Regulations that impose requirements for pre-announcement
3 of price changes also work to the advantage of competitors (but against the interests of
4 consumers or genuine competition) by providing competitors with an institutionalized lag
5 in the response to their own price changes. Reducing the time frame in which price
6 changes must be pre-announced, therefore, encourages price competition.

7 Finally, besides forcing all firms to compete in the marketplace rather than in the
8 hearing room, pricing flexibility will help align prices and costs. Allowing competition
9 to align prices with costs opens the doors to competition for consumers who might not
10 otherwise have competitive choices at all. Where prices are kept artificially low in a
11 regulatory attempt to protect consumers, those prices act as a regulatory barrier to entry
12 that quarantines those customers from enjoying the increased choice and innovation that
13 carriers would want to bring to them if prices were compensatory.

14
15 **Q.13 AT PAGE 9 OF HIS REBUTTAL TESTIMONY, MR. PETERS ARGUES THAT**
16 **IT IS "ENTIRELY POSSIBLE" THAT PRICING FLEXIBILITY MIGHT LEAD**
17 **TO ATTEMPTS BY SBC MISSOURI TO "SQUEEZE OUT" COMPETITORS**
18 **FROM THE MARKET.⁴⁵ MR. KOHLY RAISES A SIMILAR ARGUMENT AT**
19 **PAGE 3 OF HIS TESTIMONY. SHOULD THIS BE A SIGNIFICANT CONCERN**
20 **IN THIS CASE?**

⁴⁵ Mr. Peters specifically says that SBC Missouri might try to squeeze out competitors by decreasing its prices and "subsequently raise prices until there are no longer economic rents available in the market." The latter statement is nonsensical, as raising price has the effect of increasing, not decreasing, the available economic rents in the market (and thereby invites new entry that disciplines prices.) *Peters Rebuttal Testimony*, p. 9.

1 A.13 No, I do not believe that the risks of anticompetitive price decreases are serious enough to
2 affect the Commission's decision in this case.

3 The concern is that, given retail pricing flexibility, a firm could (in principle)
4 reduce its retail prices below cost in an effort to render the market unprofitable and drive
5 competitors out. The firm then presumably could increase its prices and recoup the losses
6 it incurred during the period of predation and earn profits. However, anticompetitive or
7 "predatory" pricing of this sort is not so easily implemented as it is explained. Moreover,
8 there are other regulatory mechanisms in place to deter and punish such actions.

9 Foremost, predatory pricing as a result of a competitive reclassification is not
10 likely to be successfully implemented (or implemented at all) because the industry
11 structure is not likely to support it. To be successful, the firm would have to evaluate
12 whether it could successfully (1) drive competitors from the field by pricing below cost;
13 (2) increase retail prices sufficiently and for a long enough period after a successful
14 exclusion of its competitors to recoup its losses; and (3) do all of this without attracting
15 the attention of antitrust authorities, and regulators. None of these three factors work in
16 favor of successful predation.

17 First, it would be difficult for SBC to drive from the field a facilities-based carrier
18 such as a cable company or a wireless company by reducing retail prices because, like
19 SBC, they have sunk investments.⁴⁶ These sunk investments mean both that carriers may
20 have very low incremental costs of staying in the market in the short run, and that they
21 can reenter the market at relatively low cost (because the sunk assets do not disappear)

⁴⁶ It goes without saying that SBC could not drive cable or wireless companies from the market, even if SBC had the authority to increase loop prices, because these firms do not rely on SBC's loop.

1 when the period of predation ends and prices rise. For both reasons, it is difficult to
2 succeed at predation against facilities-based competitors.

3 Second, even for firms that use SBC's unbundled loops, successful predation is
4 unlikely. Such carriers also have some sunk investments in the form of switching
5 equipment, which would tend to make it more difficult to drive them out. Moreover,
6 while the economic commitment to the market in the form of sunk assets may be less for
7 UNE-L based carriers than, say, wireless or cable providers, their ability to re-enter is
8 enhanced by the mandated availability of UNE-L at regulated rates. The continued
9 availability of resale at a discount off the retail price also makes a successful predatory
10 attempt unlikely because a CLEC could always turn to resale during the period of putative
11 predation. If retail prices fall, the ILEC must decrease the wholesale price
12 correspondingly. The regulated tie between retail and wholesale prices further impedes an
13 ILEC's ability to drive competition from the market by lowering price below cost.

14 Economists have long recognized that attempts at predatory or exclusionary
15 pricing are rarely successful not just because of the difficulty of driving competitors out,
16 but also because of the difficulty of recouping forgone profits incurred during the period
17 of exclusionary pricing. If the firm cannot recoup these economic losses, the pricing
18 strategy can only harm the firm adopting it, even as it benefits consumers. Recouping
19 losses requires that the firm be able to set prices above costs for an extended period of
20 time after successful exclusion. This requires that the firm has the regulatory freedom to
21 set such high retail prices while also erecting entry barriers high enough that these high
22 retail prices would not induce (re) entry. In practice these circumstances have not often

1 been found in unregulated markets, and the regulatory requirements for interconnection,
2 unbundling, and resale (all at regulated rates imposed on ILECs) under the
3 Telecommunications Act make these conditions even less likely to be satisfied in local
4 telecommunications markets in the United States. Moreover, even if firms exit, the sunk
5 investments (fiber investments, switches) become available to other buyers, possibly at
6 fire-sale prices that reduce the revenue breakeven point at which a firm can earn a
7 profitable return. Absent a realistic ability to build entry barriers and thereby recoup
8 losses, it is unlikely that a firm will even *attempt* a predatory pricing scheme.

9 In addition to the structural impediments to predation, it is more difficult to drive
10 competitors from the market as those competitors develop more diverse and substantial
11 retail revenue streams. For example, if a firm seeks to squeeze CLECs by reducing the
12 price of one retail service (for example, the price of basic service) below cost (or below
13 the wholesale cost), the downstream competitors may not be affected much because they
14 do not sell many (or any) service packages comprised solely of basic service. Instead,
15 CLECs generally sell service bundles. The profitability of the entire bundle including the
16 features, access revenues, and other associated revenues, would have to be driven
17 negative in order to drive the competitor out, clearly a costly strategy for an incumbent.

18 Finally, I must point out that the behavior that these witnesses seek to discourage
19 is the reduction of prices to retail customers. Price reductions are always beneficial to
20 consumers in the short run, and they are beneficial in the long run as well provided that
21 such decreases do not damage the competitive process. Price discipline and price
22 competition is an important component of a market economy, and should not be

1 discouraged. In *Matsushita Elec. Indus. Co.-v. Zenith Radio Corp*, a predatory pricing
2 case, the Supreme Court wrote:

3 [C]utting prices in order to increase business often is the very essence of
4 competition. Thus, mistaken inferences in cases such as this one are
5 especially costly, because they chill the very conduct the antitrust laws are
6 designed to protect. "[W]e must be concerned lest a rule or precedent that
7 authorizes a search for a particular type of undesirable pricing behavior
8 end up by discouraging legitimate price competition."⁴⁷

9 As renowned antitrust experts Areeda and Hovenkamp point out, competitors
10 always want to discourage one another from decreasing prices, because all of the firms
11 can benefit if they can jointly sustain higher prices in the market.⁴⁸ Given the
12 opportunity, competitors will bring their suspicions and grievances to a sympathetic
13 governing arm, with the universal remedy being a price maintenance plan that is
14 sponsored, rather than attacked, by governmental authority. It is particularly important,
15 then, that the Commission recognize concerns about predatory pricing in their proper
16 perspective and in light of the skepticism with which competition authorities tend to view
17 predatory pricing claims.

18
19 **Q.14 DR. ARON, YOU ALSO INDICATED THAT THERE ARE REGULATORY**
20 **SAFEGUARDS THAT DISCOURAGE AND PUNISH PREDATORY BEHAVIOR.**
21 **WHAT ARE THEY?**

⁴⁷ *Matsushita Electric Industrial Co., Inc. et al. v. Zenith Radio Corp. et al.*, 475 US 574 (1986) at *594.

⁴⁸ Areeda, Phillip, and Herbert Hovenkamp. *Antitrust Law: An Analysis of Antitrust Principles and Their Application*, Aspen Publishers, Inc., 2002, Section 723e.

1 A.14 These safeguards include, first, the general antitrust laws that govern all industries, and
2 the additional safeguards provided by the fact that carriers can bring complaints of
3 anticompetitive behavior to this Commission. Ultimately, the Commission has the
4 authority under Section 392.370(3) of the RSMo to reverse a competitive reclassification
5 and restore pricing constraints, as discussed by Mr. Unruh in his direct testimony.⁴⁹
6

7 **Q.15 ON PAGE 11 OF HIS REBUTTAL TESTIMONY, MR. PETERS APPEARS TO**
8 **ACKNOWLEDGE THE FACT THAT REGULATED PRICES CAN MAKE**
9 **SOME CUSTOMERS UNPROFITABLE AND THAT COMPETITORS MAY**
10 **DEVISE SERVICE OFFERINGS THAT WILL NOT APPEAL TO THESE**
11 **CUSTOMERS. DOES HE INCORPORATE THESE FACTS INTO HIS**
12 **COMPETITIVE ASSESSMENT?**

13 A.15 No. On the contrary, Mr. Peters simply dismisses the bias that unremunerative retail
14 pricing creates for a line-based market share analysis of competition. He notes “[w]hile
15 this assumption [of unattractive prices] may be reflected in the [CLEC take rate] data, it is
16 not indicative of the existence of effective competition.”⁵⁰ Apparently Mr. Peters misses
17 the point: while a lack of CLEC lines in unprofitable markets certainly would not be
18 “indicative” of competition, the point is that their lack is not indicative of a *failure* of
19 competition, which is the inference that Mr. Peters indeed draws. Mr. Peters sets an
20 unattainable standard: competition cannot develop at the existing prices because CLECs

⁴⁹ Direct Testimony of Craig A. Unruh on Behalf of SBC Missouri, before the Missouri Public Service Commission, Case No. TO-2005-0035, October 29, 2004, p. 46. (Hereafter *Unruh Direct Testimony*.)

⁵⁰ *Peters Rebuttal Testimony*, p. 12.

1 do not desire to serve unprofitable customers, but then he refuses to consider anything but
2 already-served lines at existing prices when determining whether a market is effectively
3 competitive and eligible for pricing flexibility. Such an approach creates the unhelpful
4 prescription that when regulation itself is responsible for discouraging competition, the
5 answer (according to Mr. Peters' approach) is to apply more regulation rather than less.
6

7 **Q.16 DR. ARON, YOU NOTED EARLIER IN YOUR SURREBUTTAL TESTIMONY**
8 **THAT MR. PETERS REMOVED BOTH UNE-P AND RESALE LINES FROM**
9 **HIS MARKET SHARE COMPUTATION. PLEASE COMMENT ON MR.**
10 **PETERS REASON FOR OMITTING RESALE. (*PETERS REBUTTAL***
11 ***TESTIMONY*, P. 13.)**

12 **A.16** Mr. Peters argues that resale entry offers "essentially no competition" for SBC Missouri's
13 retail services, and so he does not include it in his market share computation.⁵¹ Mr.
14 Peters comes to this conclusion by arguing that resale prices are derived from SBC's
15 retail prices and change proportionally.
16

17 **Q.17 IS MR. PETERS' ARGUMENT CORRECT?**

18 **A.17** No, it is not. As I discussed in my direct testimony, resale provides some discipline
19 against price increases, albeit not as much, all else the same, as does facilities-based
20 competition.⁵² Mr. Peters did not respond to my testimony on this issue, and I will not
21 repeat it here. I will add, however, that one important role of resale, as I discussed above,

⁵¹ *Peters Rebuttal Testimony*, p. 13.

1 is the discipline it provides against predatory price *decreases*. Since this is a concern
2 specifically raised by Mr. Peters, his desire to omit resale in his quantitative analysis
3 further highlights the lack of a coherent theory of competition in his testimony.

4 I also note that Mr. Peters' assessment of resale appears to ignore situations in
5 which resale provides substantial competition, such as where a CLEC wins a business
6 customer on the basis of serving not only the downtown headquarters (via facilities), but
7 also (via resale) some offices in outlying areas. In such a case, resale is not merely a
8 transitional step to facilities-based competition, but instead provides a more or less
9 permanent means of competing for customers with complex needs. I noted in my 2001
10 surrebuttal testimony that Allegiance Telecom used this approach.⁵³ Similarly, resale can
11 provide a means of rapid entry, testing the waters, and aggregation of customers prior to
12 committing sunk assets to a market; its effect on the competitive process can be
13 substantial. I noted that this is an approach that McLeod claims to have used.⁵⁴ In both
14 of these instances, the mere availability of resale (let alone at avoided cost discounts)
15 provides a means by which firms can win over customers and reduce risk. Resale can
16 therefore have an important effect on competition, and, in fact, resale's impact on

⁵² Aron Direct Testimony, pp. 28-30.

⁵³ See, Surrebuttal Testimony of Dr. Debra J. Aron on Behalf of SBC Missouri, before the Public Service Commission of Missouri, Case No. TO-2001-467, September 2001, at fn. 16.

⁵⁴ McLeodUSA's 2000 Form 10-K states that "In certain locations, we enter the market by reselling standard retail business services. This strategy allows us to aggressively capture customer share and generate revenue in a market with little up-front cost in comparison to establishing Centrex or other resold service, while we complete our own communications network. We will move relatively quickly from a resale mode to providing facilities-based services. In many other markets we have installed facilities and are aggressively capturing customer share utilizing our own switching facilities." See, Form 10-K, McLeodUSA Incorporated, for the fiscal year ended December 31, 2000, p. 7.

1 competitive development may not be fully captured simply by counting the number of
2 resale lines.

3 Moreover, it is not true, as Mr. Peters argues, that the retail prices of those who
4 use resale must necessarily change in proportion to the retail price offered by SBC. The
5 reason is that a resold service can be offered with other services to create a bundle, some
6 of which are provided by the CLEC. In such a situation, the price of the resold service
7 within the bundle may not affect the bundle price in lock step. The bundled service price
8 produces a measure of price independence between the reseller and SBC that Mr. Peters
9 did not mention.

10 In the end, the real weakness of Mr. Peters' argument is that it focuses on only one
11 type of resale strategy: one where a reseller seeks to offer on a resold basis SBC's
12 existing service offerings without offering any additional offerings or value added.
13 Competitors are more creative than that. There are other legitimate competitive strategies
14 that can use resale in ways that he did not account for in reaching his decision to exclude
15 resale from his market share analysis.

16
17 **Q.18 DR. ARON, BOTH YOUR EXAMPLE OF ALLEGIANCE AND MCLEOD RELY**
18 **ON THEIR EXPERIENCES OF 2000. WHY IS THIS RELEVANT TODAY TO**
19 **THE COMMISSION?**

20 **A.18** During the past 4 or so years, UNE-P generally provided a greater revenue and profit
21 opportunity than did resale, with similar (that is, minimal) provisioning, investment, and
22 technical requirements. Consequently, resale was cannibalized by UNE-P when UNE-P

1 became readily available at regulated prices. -It is essentially impossible to know today
2 what the success of those carriers' strategies would have been, or how these strategies
3 would have evolved in the absence of UNE-P at regulated rates. To the extent that the
4 availability of unbundled switching (at TELRIC prices) is now reduced, over time, as a
5 result of the FCC's latest unbundling rules, one might expect some restoration in the role
6 of resale (as well as the role of inter- and intramodal facilities-based competition). The
7 experience of Allegiance and McLeod prior to the established dominance of UNE-P is,
8 therefore, relevant today to the Commission as an indication of the role of resale in a
9 market without UNE-P.

10
11 **Q.19 ON PAGE 15 OF HIS REBUTTAL TESTIMONY, MR. PETERS ATTEMPTS TO**
12 **DEFEND HIS USE OF THE MARKET SHARE STATISTIC IN EVALUATING**
13 **COMPETITION BY STATING THE QUERY (AND ANSWERING IN THE**
14 **AFFIRMATIVE): "DOES DATA THAT MEASURES THE EXTENT OR LEVEL**
15 **OF COMPETITION ACCURATELY REFLECT THE LEVEL OF**
16 **COMPETITION?" PLEASE COMMENT ON THIS.**

17 **A.19** Mr. Peters' self-posed question is a tautology, and, as such, it means nothing and has no
18 substance. Of course data that "measure" the level of competition—if any such data are
19 provided—will "accurately reflect" the level of competition. The real issue is whether his
20 market share statistic "measures the level of competition." As I have explained, for
21 purposes of this case, it does not.

1 Q.20 IT APPEARS THAT MR. PETERS AGREES THAT MARKET SHARE SHOULD
2 NOT BE THE SOLE INDICATOR OF EFFECTIVE COMPETITION. (*PETERS*
3 *REBUTTAL*, P. 19.) PLEASE COMMENT.

4 A.20 Although he appears to acknowledge that market share should not be the sole indicator of
5 effective competition, neither he nor Mr. McKinnie (discussed in the following section of
6 this surrebuttal) considers other evidence in any meaningful way.

7
8 Q.21 PROVIDE AN EXAMPLE OF HOW MR. PETERS PROVIDES ONLY LIP
9 SERVICE TO OTHER INDICATORS OF COMPETITION.

10 A.21 On page 20 of his testimony, Mr. Peters effectively rejects the use of collocation data as
11 useful to the evaluation of effective competition. Mr. Peters notes that collocation
12 arrangements are useful as a beginning point, but says that collocation information does
13 not address the "degree of competition" because it does not demonstrate whether and to
14 what extent unbundled loops are used to serve customers "at the exchange level."⁵⁵

15 It appears that Mr. Peters effectively is saying that unless collocation data are
16 translated into the number of lines currently served, the data are of little value in Mr.
17 Peters' analysis. This is a shortsighted and incorrect approach to a competitive analysis
18 primarily because collocation arrangements indicate actual investments made by service
19 providers and so indicate market commitment and capacity to serve. Even taken in
20 isolation, collocation data indicate that the CLEC has surmounted certain technical
21 barriers to entry, should they exist. Moreover, if a CLEC has deployed equipment that

⁵⁵ *Peters Rebuttal Testimony*, p. 20.

can provide customers with local service, that arrangement can exert a competitive discipline on SBC *especially* if the CLEC is serving only a few customers at this time, because the CLEC has capacity at the ready to serve more customers. The existence of CLEC capacity is one indicator that there are not barriers to expansion at the network level. As I noted in my direct testimony, the lower are the barriers to entry and expansion, the less important is the question of "how many are served today" when evaluating competition.⁵⁶

Q.22 ON PAGE 22 OF HIS REBUTTAL TESTIMONY, MR. PETERS COMPLAINS, "ONLY 16 [FACILITIES-BASED] CLECS ARE REPRESENTED IN THE E911 DATA."

A.22 In my opinion, this is a lot, not a few. In a network industry, in which there are economics of scale and scope, considering that this represents facilities-based entry, the number is impressive.

RESPONSE TO MR. MCKINNIE

Q.23 PLEASE SUMMARIZE THE FLAWS IN MR. MCKINNIE'S TESTIMONY.

A.23 Like Mr. Peters, Mr. McKinnie adopts an inappropriately myopic approach to evaluating effective competition. Mr. McKinnie follows Mr. Peters' lead by simply counting the number of facilities-based CLEC-served lines in an exchange and by dismissing other relevant information regarding CLEC activity. Mr. McKinnie dismisses the information

⁵⁶ *Aron Direct Testimony*, p. 52.

1 regarding CLEC advertising; he ignores information on access line losses that is not tied
2 to specific exchanges; he ignores evolving packages; like Mr. Peters, he acknowledges
3 that implicit subsidies that hold prices below the competitive level will depress the
4 incentive of CLECs to serve those customers, but he ignores the impact of that fact in the
5 interpretation of his market share statistics; and he dismisses the impact that intermodal
6 competition is having, and is expected to have, on the market. As a result, Mr.
7 McKinnie's analysis is incomplete and his methodology is biased against a finding of
8 effective competition.⁵⁷

9
10 **Q.24 MR. MCKINNIE SAYS THAT STAFF GAVE "LITTLE, IF ANY, WEIGHT IN**
11 **ITS EXCHANGE AND SERVICE SPECIFIC ANALYSIS" TO (A) TOTAL**
12 **ACCESS LINE LOSS IN MISSOURI, (B) INCREASED BUNDLING OF**
13 **SERVICES, AND (C) REASONS THAT WOULD EXPLAIN WHY COMPANIES**
14 **MAY WISH TO COMPETE FOR BUSINESS CUSTOMERS AS OPPOSED TO**
15 **RESIDENTIAL CUSTOMERS (MCKINNIE REBUTTAL TESTIMONY, P. 7.)**
16 **DOES THIS ILLUSTRATE HOW MR. MCKINNIE LOST THE FOREST WITH**
17 **HIS RESEARCH OF THE TREES?**

18 **A.24** Yes it does. Each of these factors provides information regarding the effectiveness of
19 competition and to the availability of alternatives. Ignoring this information, or giving
20 this information "little weight" therefore reduces the effectiveness of, and in some
21 instances, biases the analysis.

⁵⁷ Here, and in my earlier discussion of Mr. Peters' testimony, I use the term "bias" in the technical sense to denote a particular flaw in the proffered analyses, not to characterize the witnesses' intentions.

1
2 **Q.25 PLEASE EXPLAIN.**

3 A.25 The total number of lines lost provides a useful top-down perspective against which one
4 can evaluate other evidence. All else the same (e.g., economic conditions), historically
5 the number of lines served by SBC Missouri in the state has, on average over the years,
6 increased. For example, between the years 1991 and 1999, SBC Missouri added (net,
7 after accounting for both additions and losses during the year) about 80,000 switched
8 access lines per year, on average. However, between 2000 and 2003, SBC Missouri had
9 an average net loss of nearly 109,000 lines per year, and it lost lines in each of those
10 years.⁵⁸ Some of this is likely due to Missouri's economic downturn, but it is also an
11 indication of competitive pressures on traditional landline telephony offered by SBC.

12
13 **Q.26 WHY SHOULD MR. MCKINNIE HAVE GIVEN WEIGHT IN HIS**
14 **COMPETITIVE ANALYSIS TO THE AMOUNT OF SERVICE BUNDLING?**

15 A.26 The reason is that the service bundles are the way the CLEC bifurcates the market into
16 those that it wishes to serve and those that it wishes not to serve. As I noted earlier, a
17 line-based market share metric has the implicit assumption that a line is a line. This is
18 not true. Someone who buys all of the bells and whistles is more profitable to serve than
19 someone who buys only basic access. Because Mr. McKinnie uses a line-based measure,
20 and because CLECs do not seek to serve the basic-service-only customer, his analysis
21 underreports the true competitive effect of the market penetration.

⁵⁸ Computed from data obtained from the FCC's ARMIS system (Report 43-08, Table 2, Switched Access Lines in Service).

1
2 **Q.27 WHY SHOULD MR. MCKINNIE HAVE GIVEN WEIGHT IN HIS**
3 **COMPETITIVE ANALYSIS TO THE "REASONS WHY COMPANIES MAY**
4 **WISH TO COMPETE FOR BUSINESS TELEPHONY SERVICES?"**
5 **(MCKINNIE REBUTTAL TESTIMONY, P. 7.)**

6 **A.27** What I believe Mr. McKinnie is referring to here is not so much the fact that CLECs want
7 to compete for business customers, although this is true, but the fact that CLECs do not
8 want to compete for those residential customers who are not profitable. I explained in my
9 response to Mr. Peters why ignoring this factor improperly sets an impossible standard for
10 finding effective competition.

11
12 **Q.28 PLEASE COMMENT ON MR. MCKINNIE'S CLAIM THAT "VERY LITTLE IF**
13 **ANY FACTUAL INFORMATION ABOUT THE CURRENT AMOUNT OF**
14 **EFFECTIVE COMPETITION SBC IS FACING CAN BE GLEANED FROM THE**
15 **AMOUNT OF ADVERTISING [CLECS] ARE DOING." (MCKINNIE**
16 **REBUTTAL TESTIMONY, P. 7.)**

17 **A.28** On the contrary, it is commonly accepted⁵⁹ that advertising behavior is relevant to a
18 competitive assessment. Advertising by CLECs can provide useful information in a
19 competitive analysis, and it certainly can provide information about the extent to which
20 services are available from alternative providers which, after all, is the criterion
21 established by the RSMo.

⁵⁹ See, e.g., Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization (2nd ed.)* (1994) (New York: HarperCollins College Publishers), pp. 614-615.

1
2 Q.29 MR. MCKINNIE ADMITS THAT HE DOES NOT RELY ON WHAT HE CALLS
3 THE "POTENTIAL COMPETITIVE PRESSURE OF VOIP" WHEN
4 EVALUATING EFFECTIVE COMPETITION UNDER THE RSMO.
5 (*MCKINNIE REBUTTAL TESTIMONY*, P. 18.) PLEASE EXPLAIN YOUR
6 UNDERSTANDING OF MR. MCKINNIE'S ARGUMENTS REGARDING VOIP.

7 A.29 Mr. McKinnie makes a number of arguments regarding VoIP. First, he states that VoIP
8 cannot be considered a substitute to basic local service for either business or residence
9 service unless the user can get a phone number from the VoIP provider that is in the
10 customer's legacy exchange.⁶⁰ Mr. McKinnie further argues that unclear regulatory
11 treatment of VoIP could affect the sustainability of VoIP in the future.⁶¹ Mr. McKinnie
12 then argues that the size of the effect of VoIP on second lines from SBC Missouri has not
13 been properly quantified.⁶² He also argues that because a user of VoIP must first buy a
14 broadband connection and then subscribe to VoIP, the price of the broadband connection
15 must be added to the price of VoIP when assessing whether the services are
16 substitutable.⁶³ Finally, Mr. McKinnie argues that for businesses, the underlying
17 transmission facility must be provided by a CLEC, a cable company, or "an SBC owned
18 loop," which reduces its competitive potential.⁶⁴

19

⁶⁰ *McKinnie Rebuttal Testimony*, p. 17.

⁶¹ *McKinnie Rebuttal Testimony*, p. 18.

⁶² *McKinnie Rebuttal Testimony*, p. 19.

⁶³ *McKinnie Rebuttal Testimony*, pp. 19-20.

⁶⁴ *McKinnie Rebuttal Testimony*, pp. 20-21.

1 Q.30 PLEASE RESPOND TO EACH OF THESE ARGUMENTS FROM AN
2 ECONOMIC STANDPOINT.

3 A.30 Having a local number so that a neighbor can call without incurring a toll charge is
4 certainly desirable. However, whether this particular feature is determinative of whether
5 VoIP is a substitute for traditional service is another matter altogether, and one that Mr.
6 McKinnie asserts but does not defend. I would first observe that even if it were true that
7 consumers do not view VoIP as a good substitute for local service if they cannot get a
8 local phone number, the argument does not apply in exchanges in which VoIP providers
9 offer local phone numbers. Hence, to disqualify VoIP in all exchanges on these grounds
10 is unsupported, as it is clear that local numbers are available from VoIP providers in some
11 SBC Missouri exchanges.

12 As for those areas, if any, where no VoIP provider is offering local numbers, it
13 must be noted that whether a local number is available is not an absolute precondition for
14 substitutability, although it may be an important factor. For example, Packet 8, a VoIP
15 provider that provides phone numbers associated with 45 rate centers in Missouri, permits
16 users to make unlimited local and long-distance calls anywhere in the country for a flat
17 rate, among other benefits.⁶⁵ A Packet 8 customer may select a Kansas City or even a
18 New York exchange even if he or she lives in Joplin, Missouri, if that is preferred.⁶⁶
19 Finally, the Packet 8 customer (as with customers of many VoIP providers) can take
20 along his or her phone and be reached even when traveling, provided there is a broadband

⁶⁵ See, Packet 8, *Area Codes and Rate Centers*, Downloaded January 12, 2005 from www.packet8.net/about/areacodes.asp.

⁶⁶ See, Packet 8, *Virtual Phone Number*, Downloaded January 12, 2005 from www.packet8.net/about/virtualnumber.asp.

1 connection (e.g., to a vacation home in Branson or Miami, Florida). The fact that in some
2 instances other users may have to pay a toll charge to call a VoIP customer when they
3 would not have had to pay a toll charge to call an SBC customer in the same location
4 reflects a difference between the services, to be sure, and it should be considered, but it is
5 not necessarily a difference that would disqualify the service from being reasonably
6 interchangeable in use in the eyes of the consumer, especially in light of these other
7 benefits. Moreover, it need not be considered reasonably interchangeable in use by *all*
8 customers to qualify as a substitute, but only by a sufficient number of customers to exert
9 price discipline.

10 Regarding Mr. McKinnie's argument that VoIP's future success may hinge on its
11 regulatory treatment at the FCC, I submit that this argument is (charitably) far-fetched.
12 VoIP is now considered a potentially industry-changing technology because
13 fundamentally, it offers a variety of innovative features that, so far, are not possible with
14 traditional technology, and it can be provided at lower cost (see my direct testimony).
15 Whatever regulatory treatment is ultimately decided for VoIP, it is highly unlikely to be
16 so asymmetrically onerous as to entirely overcome VoIP's economic advantages.
17 Consistent with these expectations, as I noted in my direct testimony, cable companies are
18 committing substantial resources to providing telephone service using Internet protocol,
19 and are rolling it out nationwide in their service territories.⁶⁷ It also appears that at this
20 time, investment analysts are fairly enthusiastic about Comcast's recent commitment to

⁶⁷ *Aron Direct Testimony*, pp. 36-41.

1 obtaining 20 percent of the homes passed in its service territories via VoIP telephony.⁶⁸
2 Similarly, according to analysts at the Buckingham Research Group, Time Warner "has
3 emerged as an aggressive entrant in the VoIP space, with plans to deploy the service
4 across all of its cable systems by the end of [2004]."⁶⁹ These cable carriers are making
5 broad market commitments, and, given the reception by investment analysts, there is
6 expectation of success as well. As I also noted in my direct testimony, Cox
7 Communications is convinced that VoIP makes sense from a technology and cost
8 standpoint.⁷⁰ That general conclusion is seconded by investment analysts, such as those
9 at Bernstein Research who conclude, "[t]he attractive marginal economics of VoIP
10 deployment are a key theme in cable operators' increased enthusiasm for the new service.
11 VoIP service is far less capital-intensive than its precursor."⁷¹

12 Indeed, with the changes to the UNE-P environment, former UNE-P-based
13 providers such as Z-Tel are re-inventing themselves as VoIP providers. Other UNE-P-
14 based providers may follow Z-Tel's path. According to Craig Claussen, an analyst with
15 New Paradigm Resource Group, "I think we'll see a lot of what Z-Tel is doing—

⁶⁸ See, e.g., Jessica Reif Cohen, Keith Fawcett, and Hyun-Ju Kwak, "Comcast Corp (Cl. A): Kick-Starting '05 With A Bang: VoIP and More," Merrill Lynch Analyst Report, January 11, 2005; Thomas W. Eagan and Shub Mukherjee, "Comcast: Comcast's VoIP Announcement is a Positive," Oppenheimer Analyst Report, January 10, 2005; Katherine Styponias, Aaron Bearce, and Michael Morris, "CMCSA: Comcast Enters VoIP Field with a Bang; Expects 20% Market Share - 8 Million Subscribers - by 2010," Prudential Equity Group Analyst Report, LLC, January 10, 2005.

⁶⁹ Qaisar Hasan and May Tang, "The Last Mile: Monitoring Quarterly Trends in Telecommunications, Video and Data," The Buckingham Research Group, November 23, 2004, p. 48. (The Buckingham Research Group is an independent institutional research analyst group that provides research to institutional investors (rather than the public).

⁷⁰ Aron Direct Testimony, pp. 38-41.

⁷¹ Craig Moffett, Jeff Halpern, and Amelia Wong, "Cable and Telecom: VoIP will Reshape Competitive Landscape in 2005," Bernstein Research Analyst Report, December 17, 2004, p. 2. The analysts conclude that capital costs of cable VoIP are lower than traditional circuit-switched cable telephony technology due

1 partnering with [broadband loop service provider] Integral Access and building out access
2 facilities. CLECs are going to have to innovate to survive.”⁷²

3
4 **Q.31 PLEASE COMMENT ON THE FACT THAT MR. MCKINNIE ESSENTIALLY**
5 **IGNORES THE EFFECT OF VOIP ON SECOND LINES BECAUSE THE**
6 **EFFECT HAS NOT BEEN QUANTIFIED. (MCKINNIE REBUTTAL**
7 **TESTIMONY, P. 19.)**

8 A.31 The lack of hard quantified evidence on the effect of second lines, while regrettable, does
9 not justify ignoring what evidence does exist. Although admitting to only ballpark
10 accuracy, Deutsche Bank estimates that about 50 percent of Vonage’s customers use
11 Vonage purely as a second line.⁷³ Indeed, Vonage itself estimates that 70 to 75 percent of
12 its customers use its service as a *primary* line.⁷⁴ Vonage is a second-party VoIP provider,
13 as I explained in my direct testimony. Cable providers of VoIP focus on strict adherence
14 to circuit-switched qualities (with regard to downtime, E911, call quality, and backup
15 power), so that one might expect a higher percentage of their customers to be replacing
16 primary lines.⁷⁵ (I will note that Deutsche Bank also concludes that wireless has become

to lower equipment costs (such as the “softswitch,”) lower maintenance costs, and lower customer premises equipment costs.

⁷² As quoted in “Z-Tel Morphing into Trinsic,” Downloaded January 12, 2005 from http://telephonyonline.com/ar/telecom_ztel_morphing_trinsic. (Hereafter *Z-Tel Telephony Article*.)

⁷³ *Deutsche Bank November 2004*, p. 14.

⁷⁴ Executive Vice President of Product Development Louis Holder estimates 70 to 75 percent of Vonage customers use the service as a primary phone. “We know that because they port their number to us.” See, “Vonage: Recipe for Success?” *The Register*, November 24, 2004. Downloaded January 20, 2005 from http://www.theregister.co.uk/2004/11/02/vonage_voip/print.html.

⁷⁵ There could be overlap, of course. In theory, one could obtain primary telephone service from Comcast using VoIP, and use Vonage or Skype as a second line.

1 the "killer app" of the primary line, being responsible for nearly 4 million of the 8.5
2 million lines lost by the RBOCs during the past 7 quarters.⁷⁶) Rough that these figures
3 may be, it is more responsible to seriously consider them than it is to simply ignore the
4 effect of VoIP on first or second lines.

5
6 **Q.32 PLEASE COMMENT ON THE ARGUMENT THAT A VOIP USER MUST FIRST**
7 **BUY A BROADBAND CONNECTION AND SO THE PRICE OF BROADBAND**
8 **MUST BE ADDED TO THE PRICE OF VOIP WHEN ASSESSING THE**
9 **COMPARABILITY OF VOIP TO SBC MISSOURI'S SERVICE. (MCKINNIE**
10 **REBUTTAL TESTIMONY, P. 19-20.)**

11 **A.32 This is incorrect. First, for a customer already purchasing broadband Internet access**
12 **service, her decision to also purchase voice service depends only on the incremental price**
13 **of the voice service, not the price of the Internet access service. The broadband Internet**
14 **access service would be purchased either way, and is therefore not incremental to the**
15 **VoIP decision.**

16 If the customer does not already purchase broadband Internet access service, the
17 customer's decision to buy VoIP would incorporate not just the value to the customer of
18 the voice service, but the array of other services made available from the purchase as
19 well. The reason is that the broadband connection provides the customer with the
20 benefits of high-speed Internet access in addition to the voice service. The customer will
21 make a decision about VoIP service based on the *bundle* of services that are offered.

⁷⁶ Deutsche Bank November 2004, p. 16, at Figure 6.

1 Bundles may include broadband Internet access, video, movie service, and digital music
2 channels along with the voice telephone service (and vertical features that can be
3 associated with this service). The decision to purchase is made if the total value of the
4 bundle exceeds the total cost of the bundle. The customer selects among bundles (and
5 carriers) based on the relative values and prices of these various bundles. In essence, the
6 potential for VoIP simply becomes one more reason in the customer's calculus for
7 deciding to subscribe to a broadband connection.

8
9 **Q.33 MR. MCKINNIE URGES THE COMMISSION TO "WAIT[] TO SEE ACTUAL**
10 **PHYSICAL COMPETITION" RATHER THAN RELYING ON FORECASTS**
11 **AND PROJECTIONS OF VOIP AND CABLE TELEPHONY. (MCKINNIE**
12 **REBUTTAL TESTIMONY, P. 23.) DOES THE AVAILABILITY OF VOIP**
13 **DEPEND ON FORECASTS OR SPECULATION?**

14 **A.33** No. In Missouri a broadband user can subscribe today to services from AT&T, Vonage,
15 Packet 8, and others regardless of his or her exchange.⁷⁷ Where cable telephony is
16 offered, it is an "alternative" to SBC's service, regardless of the number of takers.
17 Clearly, the RBOCs believe that the competitive pressure from VoIP and cable telephony
18 is real and not merely a forecast or projection. They are taking steps now to counter the
19 challenge. RBOCs are pushing fiber technology toward the edge of the network in part to

⁷⁷ As I have noted, these services may not provide a local number in every area code or local rating center (although Packet 8 provides local numbers in every Missouri area code). While this means that, in some instances, someone calling the VoIP customer may incur a toll charge where there would have been none before, this may be offset (at least in the VoIP customer's mind) by the fact that the VoIP customer can place long-distance calls without incurring a charge and that customers of that VoIP provider can call one another without incurring a charge.

1 counter the competitive challenge of cable companies. According to Deutsche Bank
2 analysts, "[W]e have seen nothing short of a major paradigm shift in the telecom sector,
3 where more or less every single operator has a strategic goal of providing entertainment
4 on net."⁷⁸ This requires a major upgrading of the network to accommodate the extra
5 bandwidth of video.

6
7 **Q.34 MR. MCKINNIE CLAIMS (ON PAGE 28) THAT IF ONLY 26 PERCENT OF**
8 **WIRELINE CUSTOMERS SURVEYED WHO ALSO HAVE A WIRELESS**
9 **PHONE HAVE CONSIDERED SWITCHING TO WIRELESS SERVICE ONLY,**
10 **THEN THE "MAJORITY" OF CUSTOMERS DO NOT SEE WIRELESS AS A**
11 **SUBSTITUTE FOR WIRELINE SERVICE. PLEASE COMMENT.**

12 **A.34** I believe that Mr. Shooshan addresses and corrects Mr. McKinnie's arithmetic
13 interpretation of his study, but perhaps I can provide some additional economic
14 perspective.

15 Let us consider, for a moment, what we know about wireless service. We know
16 that nearly every resident in the areas served by SBC Missouri has access not only to
17 wireless service, but to at least two wireless carriers not including Cingular and AT&T.⁷⁹
18 We also know that 70 percent of Missouri households in the areas surveyed by Mr.
19 Shooshan contain at least one wireless subscriber.⁸⁰ We also know that, while wireless
20 and wireline are not perfect substitutes, or perfectly interchangeable in use, they are, for

⁷⁸ *Deutsche Bank November 2004*, p. 35.

⁷⁹ *Unruh Direct Testimony*, pp. 36-37.

1 the most basic purposes (day-to-day, real-time voice communication), reasonably
2 interchangeable in use (which is the *Brown Shoe* criterion for substitutability that I
3 described in my direct testimony⁸¹).

4 As a matter of economics it is therefore certainly true that, for each wireline
5 consumer, there is some high enough price of wireline service at which he would abandon
6 wireline service entirely and rely on wireless. This may be a higher price for some and it
7 may be a low price for others, and for many, that price has already been met, as shown in
8 Mr. Shooshan's survey. What we don't know is how high the price of wireless would be
9 before large proportions of the wireline base would abandon wireline service. However,
10 understanding this responsiveness of consumers as a group to price is key to assessing
11 how much the presence of wireless today would constrain wireline prices. We cannot
12 know the answer under current regulatory constraints, however, because wireline prices
13 are not permitted to increase to any level at which the elasticity of demand would be
14 revealed. We can only see the behavior of customers at currently feasible wireline prices.
15 Remarkably enough, even then there is some substitution. But this amount of substitution
16 tells us little about how strong the substitution relationship is. More accurately, the
17 observed amount of substitution at current prices tells us only a *minimum* of how strong
18 the substitute relationship is.

19 It is therefore a methodological error to infer from the currently observed numbers
20 of people who have "cut the cord" what the full degree of substitutability is between

⁸⁰ Direct Testimony of Harry M. Shooshan, on Behalf of SBC Missouri, before the Missouri Public Service Commission, Case No. TO-2005-0035, October 29, 2004, pp. 4-5.

⁸¹ Aron Direct Testimony, p. 18.

1 wireline and wireless services because the currently observed amount of substitutability
2 can only be the tip of the iceberg; the rest of the iceberg is not visible and cannot be
3 visible under current regulatory constraints. Moreover, succumbing to this
4 methodological error sets an impossible standard (and a Catch 22) for competitive
5 reclassification of the same sort I discussed in the context of Mr. Peter's testimony. It
6 requires significant defection to wireless before concluding that wireless is a close
7 substitute to wireline, when significant defections to wireless may not happen unless
8 triggered by price experiments that only become possible by deregulating wireline
9 services.
10

11 **Q.35 DO YOU MEAN TO SAY THAT THE PRICE OF WIRELINE WOULD HAVE**
12 **TO RISE A LOT BEFORE WE SEE SIGNIFICANT AMOUNT OF WIRELESS**
13 **SUBSTITUTION?**

14 **A.35** No, not necessarily. If wireless and wireline are close substitutes, small increases in
15 wireline prices above current levels might trigger a large defection toward wireless
16 services (particularly since wireless providers continue to offer more and more innovative
17 and exciting services and greater coverage areas). Large responses to a small price
18 increase for wireless service would discipline wireline prices by inducing carriers to
19 revert to lower prices or by limiting further increases.
20

1 Q.36 ON PAGE 29 OF HIS REBUTTAL TESTIMONY, MR. MCKINNIE PROVIDES A
2 DEFINITION OF "COMPLEMENT" PRODUCTS. IS HIS DEFINITION
3 CORRECT?

4 A.36 No, it is not. A "complementary product" is a term of art in economics that relates the
5 demand for one product to a change in the price of another. I have never seen
6 complementarity defined in economics as products that "supply each other's lack," as Mr.
7 McKinnie proposes. Mr. McKinnie's discussion reflects a profound misunderstanding of
8 economic "complements" and is irrelevant.

9 RESPONSE TO MS. MEISENHEIMER
10

11 Q.37 DR. ARON, DO YOU HAVE ANY PRELIMINARY OBSERVATIONS ABOUT
12 MS. MEISENHEIMER'S TESTIMONY?

13 A.37 Yes. As I noted earlier, in presenting her HHI analysis Ms. Meisenheimer fails to
14 substantively address my testimony in areas where it is at odds with what she says. In so
15 doing, she also ignores the Commission's conclusions with regard to this particular
16 metric. Second, Ms. Meisenheimer makes conclusions that are not based on economic
17 fundamentals. For example, Ms. Meisenheimer argues⁸² that wireless is not functionally
18 equivalent to wireline service based on a number of factors (such as the fact that wireless
19 carriers do not recognize the Commission's authority in coverage, price, terms or
20 conditions, or reporting, and on factors such as her own experiences) that have little to do

⁸² *Meisenheimer Rebuttal Testimony*, pp. 17-18.

1 with whether consumers consider wireless service to be reasonably interchangeable with,
2 or a substitute for, wireline service.

3
4 **Q.38 MS. MEISENHEIMER CLAIMS THAT VOIP "SUFFERS FROM POOR SIGNAL**
5 **QUALITY" AND SO IS NOT A FUNCTIONAL EQUIVALENT TO CIRCUIT-**
6 **SWITCHED SERVICE. (MEISENHEIMER REBUTTAL TESTIMONY, P. 18.)**

7 A.38 This claim is wrong on the facts and on the economics. First, Cox Communications
8 claims that the quality of its VoIP-based service is identical to that of circuit-switched
9 telephone.⁸³ I understand that Cox does not operate in Missouri, but major cable
10 companies such as Time Warner and Comcast do operate in Missouri, and, based on my
11 reading of investment analyst reports, there appears to be no reason that these other
12 carriers could not enjoy the same level of quality. Even the "stand-alone" VoIP services
13 such as Vonage have gotten very good reviews from independent analysts. After
14 examining Vonage's service, the editors of Cnet.com (a popular website devoted to the
15 evaluation of computers, software and consumer electronics) conclude, "While some
16 VoIP services are best used as a secondary line or for saving money on especially
17 expensive long-distance calls, Vonage offered clear call after clear call, making it a
18 suitable replacement for your primary phone line."⁸⁴

19 In other instances, such as the use of software-based products that use the public
20 Internet (such as Skype, which I described in my direct testimony), the call quality may

⁸³ Aron Direct Testimony, p. 45.

⁸⁴ Neil Randall, "Vonage: CNET Editor's Take," July 16, 2004, Downloaded January 20, 2005 from http://reviews-zdnet.com.com/vonage/4505-9238_16-30974765-2.html.

1 not equal that of the traditional landline call. However, even in this instance, VoIP may
2 be a substitute for traditional circuit-switched telephony. The reason is that call quality is
3 but one aspect of the service that enters into the consumer's decision. Balancing the
4 possibly inferior quality is the fact that VoIP can provide services that are not available,
5 to my knowledge, with circuit-switched packages, such as permitting customers to take
6 their phones and phone numbers with them wherever they may travel, as I mentioned
7 earlier.⁸⁵ These other features are considered by customers when they are evaluating the
8 overall benefits of the service. As I noted in my direct testimony products need not be
9 identical in quality or in other characteristics to be substitutes in the marketplace.⁸⁶

10
11 **Q.39 MS. MEISENHEIMER CLAIMS THAT COMPETITION HAS NOT FULFILLED**
12 **OR ADVANCED MEANINGFULLY THE GOALS FOUND IN RSMO SECTION**
13 **392.185. (MEISENHEIMER REBUTTAL TESTIMONY, P. 18.) PLEASE**
14 **COMMENT.**

15 A.39 According to Ms. Meisenheimer, competition has not fulfilled the goals of the RSMo
16 because (she claims) prices for basic local service have increased and SBC has not taken
17 advantage of downward pricing flexibility afforded it by the price caps plan.⁸⁷ I do not
18 comment on whether her factual claims are correct, but I would observe that Ms.
19 Meisenheimer's view of assessing the benefits of competition simply by looking at a few
20 prices that are under heavy regulation is contrary to the more nuanced view of

⁸⁵ This may be useful for a "snowbird" who spends the winter in Florida. The user would have a local Missouri telephone number even though he or she is located in Florida for several months out of the year.

⁸⁶ Aron Direct Testimony, p. 19.

1 competition's benefits as described by the RSMo, the observations and conclusions by the
2 Commission, and my discussion of economics in my direct testimony.

3 A simple reading of Section 392.185 illustrates that the RSMo is more
4 thoughtfully designed than is indicated by Ms. Meisenheimer's attempt to boil down
5 success to decreases in the price of basic local service under price caps. The RSMo's
6 goals include diversity of supply of services, reasonableness of prices, and efficiency and
7 availability of telecommunications services, among others. The framers appear to
8 recognize that, contrary to Ms. Meisenheimer's argument, the benefits of competition
9 transcend price performance for one particular and narrowly defined service offering.
10 The Commission also recognized that the benefits of competition are not always
11 evidenced in the form of price decreases. In its 2003 Sprint reclassification order, the
12 Commission observed that, as a matter of economics and logic, prices do not always
13 decline in a competitive market.⁸⁸

14 Ms. Meisenheimer's one-dimensional metric for assessing the benefits of
15 competition fails to come to terms with the history of telecommunications regulation that
16 led to the ILEC prices in the market today, and the variety of goals articulated by the
17 legislature in the RSMo.

18
19 **Q.40 MS. MEISENHEIMER RECOMMENDS THAT THE COMMISSION LISTEN TO**
20 **THE COMPLAINTS VOICED BY THE CLECS REGARDING THE POSSIBLE**
21 **PROBLEMS ASSOCIATED WITH A COMPETITIVE RECLASSIFICATION OF**

⁸⁷ *Meisenheimer Rebuttal Testimony*, pp. 18-19.

1 **SERVICES. (MEISENHEIMER REBUTTAL TESTIMONY, P. 19.) PLEASE**
2 **COMMENT.**

3 A.40 I have already commented on the current incentives of CLECs to oppose pricing
4 flexibility by competitors. I would only add that in listening to CLECs it should be noted
5 what is *not* being said and who is *not* talking here. I think that that it is quite telling that
6 of the 16 facilities-based CLECs (by Mr. Peters' count) that serve Missouri, only 2 have
7 chosen to file testimony in this proceeding. Major CLECs such as AT&T, MCI, and
8 various cable providers have not voiced an opinion in this case, yet they are pursuing
9 facilities-based strategies in Missouri independently or in concert with one another. The
10 actions of the 14 facilities-based carriers that have chosen not to offer testimony
11 challenging a competitive reclassification proceeding speaks to their lack of concern that
12 anticompetitive behavior will result.

13 These other companies are moving forward in the marketplace rather than
14 competing in the hearing room. As I noted in my direct testimony, AT&T has entered
15 into "broadband marketing pacts" with Comcast, Time Warner, Cox, Charter, and
16 Adelphia wherein AT&T will refer potential CallVantage VoIP customers to these
17 broadband service providers.⁸⁹ Such pacts have the potential to drive broadband
18 penetration by increasing the number and value of services that can be obtained from a
19 broadband platform. Z-Tel has changed its business plan (and its corporate name to
20 Trinsic) from UNE-P to VoIP, and is entering into agreements with underlying carriers to

⁸⁸ 2003 Sprint Missouri Competitive Reclassification Order, p. 31.

⁸⁹ Aron Direct Testimony, p. 48.

1 serve its customers.⁹⁰ As I discuss in my response to Mr. Kohly (later in this surrebuttal),
2 MCI is taking a variety of steps to compete using agreements with McLeodUSA. In fact,
3 MCI has stated that in light of current disruptive technologies and technological
4 development, states should take a decreased role in retail regulation. Specifically, in a
5 letter last month to the Illinois Senate Energy & Environment Committee,⁹¹ MCI said:

6 [T]echnology and markets are evolving more rapidly than anybody would
7 have anticipated only a few years ago. Broadband investment is occurring,
8 in the form of various fiber to the home initiatives (both public and
9 private), BPL, wireless, Wi-Max and various cable offerings. The impact
10 of the "broadband revolution" is the convergence of voice and data, and
11 the most immediate, but by no means the last, manifestation of that
12 convergence is voice over internet protocol (VoIP). VoIP and other new
13 applications that use the underlying broadband "pipe" are changing the
14 telecommunications market dramatically, as new, non-traditional players,
15 such as Vonage or Skype and others, start offering communications
16 packages. Although the impact of these "disruptive technologies" on
17 many companies has been painful, it has also forced all of us to take a hard
18 look at the regulatory environment in which we serve consumers and begin
19 the difficult job of determining whether the frameworks of the past fit the
20 world of the future.

21 ***

22 It is MCI's view that states should have less of a role in regulating retail
23 telecommunications services and service providers. Simply put,
24 convergence means that telecommunications can no longer be thought of
25 as a traditional, state regulated utility. Attempts to keep such regulation on
26 "traditional providers" such as MCI or the ILEC's simply skew the market
27 place by creating an asymmetry of regulation, especially as new, non-
28 traditional players enter the market.

⁹⁰ *Z-Tel Telephony Article*. See, also, Z-Tel's web site that confirms that residential service is available in the 314-645-XXXX area—an exchange in SBC's St. Louis service territory—for one at <http://www.z-tel.com/portal/ztel/index.jsp>.

⁹¹ See, Exhibit A to SBC Michigan's Reply Comments in MPSC Case Nos. U-14323 and U-14324: Letter, John K. Jones to Illinois Senate Energy & Environmental Committee, dated December 1, 2004.

1 If the Commission is inclined to heed Ms. Meisenheimer's suggestion and listen to what
2 the CLECs are saying, I would submit that it is useful to listen to what MCI is saying
3 about the need for reduced retail regulation.

4 **RESPONSE TO MR. KOHLY**
5

6 **Q.41 PLEASE PROVIDE AN OVERVIEW OF THE GENERAL ERRORS IN MR.**
7 **KOHLI'S TESTIMONY.**

8 A.41 Mr. Kohly provides a litany of potential problems that he claims might occur if SBC's
9 services obtain a competitive reclassification, including predatory pricing, term contracts,
10 and win-backs.⁹² He also argues that market share is the best way to determine effective
11 competition.⁹³ Much of this has been addressed above.
12

13 **Q.42 MR. KOHLI ARGUES THAT CLEC PRICES ARE CAPPED BY SBC'S PRICES.**
14 **(KOHLY REBUTTAL TESTIMONY, P. 5.) PLEASE RESPOND.**

15 A.42 Mr. Kohly's claim stands in contrast to the reality of CLEC price plans in the market
16 today, which reflect a variety of high-priced bundles that would not appeal to SBC
17 customers who subscribe only to basic service.⁹⁴ Nevertheless, while Mr. Kohly's
18 simplistic statement is not true, it is true that ILEC prices and CLEC prices are
19 interrelated and respond to one another, and ILEC prices affect the price that are likely to

⁹² *Kohly Rebuttal Testimony*, pp. 3-4.

⁹³ *Kohly Rebuttal Testimony*, p. 6.

⁹⁴ See, e.g., David W. Barden *et al.*, "Wireline Services Pricing Update," Banc of America Securities Analyst Report, January 12, 2005.

1 be of interest to CLECs. This is precisely why pricing flexibility promotes competition
2 and benefits consumers. Higher ILEC prices create entry opportunities for CLECs, and
3 lower ILEC prices constrain and shape CLECs' offers. Both are beneficial aspects of
4 competition.

5
6 **Q.43 MR. KOHLY CLAIMS THAT PROVIDERS SUCH AS AT&T HAVE**
7 **ANNOUNCED THEIR INTENT TO WITHDRAW FROM THE CONSUMER**
8 **MARKET IN THE WAKE OF THE CHANGES IN UNE-P POLICY, AND THAT**
9 **MCI HAS TAKEN SIMILAR STEPS, AS HAS Z-TEL. (KOHLY REBUTTAL**
10 **TESTIMONY, P. 10.) WOULD YOU PLEASE COMMENT ON THESE CLAIMS**
11 **IN LIGHT OF THE PLANS FOR THESE FIRMS THAT YOU DESCRIBED**
12 **EARLIER?**

13 **A.43** Yes, I will. Mr. Kohly incorrectly claims that AT&T "announced its intent to withdraw
14 from the consumer voice market."⁹⁵ What AT&T actually said in its press release was:

15 [AT&T] also announced that it is shifting its focus away from traditional
16 consumer services such as wireline residential telephone services, and
17 concentrating its growth efforts going forward on business markets and
18 emerging technologies, such as Voice over Internet Protocol (VoIP), that
19 can serve businesses as well as consumers. The shift plays to AT&T's
20 strength as an innovator in communications and a leader in serving the
21 complex networking and technology needs of businesses.⁹⁶

22 While the press release clearly states that AT&T is focusing its efforts on business
23 customers, since this is where AT&T believes it can make the most money, the paragraph

⁹⁵ *Kohly Rebuttal Testimony*, p. 9.

1 also describes a change in corporate focus from traditional telephone service toward VoIP
2 that can serve "businesses as well as consumers." This focus appears to be confirmed in
3 another news article. In an article that reported AT&T's plans to stop serving residential
4 customers in seven states (including Missouri), the reporter added that the company's
5 announcement would not affect its CallVantage (VoIP) customers:

6 [AT&T] stressed that it will continue to serve its existing residential
7 customers in the affected states, and that its announcement today does not
8 affect its enterprise, government and other small- and medium-sized
9 business customers. It will also not affect customers with DSL and cable
10 modem offerings who subscribe to the company's Voice over IP offering,
11 AT&T CallVantage(SM) Service.⁹⁷

12 Subsequent events have demonstrated that AT&T has not left Missouri's residential
13 market, but instead continues to sell to residences its VoIP CallVantage plan in many
14 areas of the state.

15 MCI's plans appear to be more uncertain. The company's fraud and consequent
16 bankruptcy have, frankly, damaged the firm and its prospects. I note that MCI continues
17 to offer its various plans in the 48 continental states on its web site.⁹⁸ Credit analysts at
18 JP Morgan believe that the firm will "harvest its high-margin consumer business and,
19 like, AT&T, shift its investment dollars towards unregulated IP-based growth areas."⁹⁹ I

⁹⁶ "AT&T Announces Second-Quarter 2004 Earnings, Company to Stop Investing in Traditional Consumer Services; Concentrate Efforts on Business Markets," AT&T News Release, July 22, 2004, Downloaded January 12, 2005 from <http://www.att.com/news/2004/07/22-13163>.

⁹⁷ Armando Duke, "AT&T to Stop Competing in the Residential Market in Seven States," Access News, June 24, 2004, Downloaded January 12, 2005 from http://www.accessnews.com/technology_062404.shtml.

⁹⁸ See, e.g., The Neighborhood Calling Packages, MCI web site. (See, http://consumer.mci.com/TheNeighborhood/res_local_service/jsps/default.jsp and also, http://consumer.mci.com/compare_plans.jsp#CallingPackages.)

⁹⁹ Avi Benus, Peter G. Fitzpatrick, and Austin G. Camporin, "MCI Communications (OVERWEIGHT) 3Q04," JP Morgan Global High Yield Research Analyst Report, November 4, 2004, p. 2.

1 would infer from this that one of these "unregulated IP-based growth areas" would be
2 VoIP. Moreover, as I discussed earlier, MCI has signed an agreement with McLeodUSA
3 that will enable MCI to migrate its UNE-P customers to the McLeodUSA network and
4 thereby continue providing local telephone service to residential customers where those
5 customers reside in areas served by McLeodUSA's facilities.¹⁰⁰ In its answer to a data
6 request, MCI has confirmed that its agreement with McLeodUSA covers Missouri.¹⁰¹ By
7 using McLeodUSA as its underlying carrier at (presumably) market prices in lieu of
8 SBC's network at regulated TELRIC rates,¹⁰² MCI is migrating the customers from the
9 SBC UNE-P services.

10 Finally, while Mr. Kohly is correct that Z-Tel is eliminating its *UNE-P based*
11 *business model*, this is a far cry from exiting the market. Rather, as I noted, Z-Tel is
12 changing to a VoIP-based business model under a new company name, and it continues to
13 sell service in Missouri. While Z-Tel itself may or may not successfully meet the
14 challenges required to become a VoIP-based service provider, its new strategic direction
15 demonstrates the appeal of this avenue of competitive entry for itself and others.

16
17 **Q.44 MR. KOHLY TAKES ISSUE WITH YOUR ASSERTION THAT ESTIMATES OF**
18 **CLEC LINES BASED ON E911 DATA ARE LIKELY TO BE CONSERVATIVE**
19 **(I.E., UNDERCOUNT THE TRUE NUMBER OF CLEC LINES). (KOHLY**

¹⁰⁰ McLeodUSA Press Release.

¹⁰¹ A copy of MCI's data request answer is attached as Aron Schedule 2HC.

¹⁰² McLeodUSA offers service and is a CLEC in Missouri.

1 **REBUTTAL TESTIMONY, PP. 12-13.) – WHAT IS THE BASIS FOR MR.**
2 **KOHLY'S ASSERTION?**

3 A.44 Mr. Kohly contends that "some carriers place all numbers associated with any voice line
4 in the E-911 database," regardless of whether those voice lines are inbound-only,
5 outbound-only, or two-way lines, or voice lines associated with a Private Branch
6 Exchange (PBX).¹⁰³ He says that the rationale for this reporting practice is "to avoid the
7 possibility of future omissions and potential liability if the service is later changed to an
8 outbound or to a two-way service." To support his assertion, Mr. Kohly appears to rely
9 exclusively on the practices of his employer, Socket.¹⁰⁴

10
11 **Q.45 PLEASE RESPOND TO MR. KOHLY'S ASSERTION REGARDING SOCKET'S**
12 **PRACTICE OF REPORTING ITS E911 DATA.**

13 A.45 I do not contest Mr. Kohly's characterization of his employer's E911 reporting practices.
14 It is my understanding that if a local exchange carrier chooses to report non-generating
15 dial tone telephone numbers (such as DID lines), SBC Missouri (the E911 database for its
16 service territory in Missouri) will include those numbers in the database. However, there
17 are several factors that lead me to question whether such a practice is common among
18 CLECs. It is my understanding that Socket's E911 reporting practices are contrary to the
19 recommended National Data Standards for Local Exchange Carriers, ALI Service
20 Providers and 9-1-1 Jurisdictions developed by the National Emergency Number

¹⁰³ Kohly Rebuttal Testimony, p. 13.

¹⁰⁴ Kohly Rebuttal Testimony, pp. 13-14.

1 Association (NENA).¹⁰⁵ According to the national recommended standard, NENA-02-
2 011, 2.19: "9-1-1 data included for exchange or storage for ALI retrieval shall not include
3 telephone numbers for non-generating dial tone classes of service."¹⁰⁶ This means that
4 in-dial only numbers, such as data circuits, 800 service, pager numbers, and stations in an
5 office served by a PBX, should not be provided to the E911 database.

6
7 **Q.46 ARE THERE ANY OTHER FACTORS THAT MIGHT DISCOURAGE**
8 **CARRIERS FROM UNNECESSARILY REPORTING TELEPHONE RECORDS**
9 **TO THE E911 SERVICE PROVIDER?**

10 **A.46** Yes. There are several additional economic factors that lessen the likelihood that carriers
11 over report telephone numbers to the E911 service provider, as described by Mr. Kohly.
12 First, the transactions costs of reporting telephone numbers are not insignificant. Because
13 of the critical public safety function of the E911 database, the process of reporting
14 telephone numbers, I am told, frequently requires validation from multiple parties and
15 provision of multiple fields of information. It is common that a percentage of telephone
16 numbers fails to validate and these numbers are returned to the carrier for correction.
17 Hence, when a carrier over reports telephone numbers to the E911 service provider, it
18 tends to increase the population of telephone numbers that on average fail to validate and

¹⁰⁵ *NENA Data Standards For Local Exchange Carriers, ALI Service Providers & 9-1-1 Jurisdictions*, Issue 3, November 9, 2004. ALI, which stands for "Automatic Location Identification," is a record used by Public Safety Answering Point (PSAP) operators to identify a caller's telephone number, the address associated with the telephone number, and supplementary emergency services information. See, *NENA Master Glossary of 9-1-1 Terminology*, updated October 2004, p. 4. The NENA documentation cited herein can be downloaded from the NENA website at www.nena9-1-1.org.

¹⁰⁶ *NENA Data Standards For Local Exchange Carriers, ALI Service Providers & 9-1-1 Jurisdictions*, Issue 3, November 9, 2004, p. 6.

1 this can be costly to the carrier in that it unnecessarily increases the carrier's workload for
2 E911 reporting.

3 Second, in many cases, new local exchange carriers contract with third party
4 vendors to manage their subscriber data for inclusion in the E911 service provider's
5 database. I am told that these third party vendors generally charge the LEC on a per
6 record basis. Thus, in these instances, including unnecessary records increases the fees
7 paid by the LEC.

8 Third, in many cases, there are charges to the local exchange carrier from the
9 E911 service provider for inclusion of the telephone numbers records in the E911
10 database.¹⁰⁷ In Missouri, the SBC interconnection agreement (M2A) sets forth the
11 charges the incumbent can levy on CLECs for including their telephone numbers records
12 in the E911 database.¹⁰⁸ Again, including unnecessary records can increase the fees paid
13 by the carrier.
14

15 **Q.47 WOULD YOU AGREE WITH MR. KOHLY THAT 80 PERCENT OF**
16 **CUSTOMERS WHO LEAVE UNE-P-BASED CLEC SERVICE WILL OPT FOR**
17 **SBC SERVICE? (KOHLY REBUTTAL TESTIMONY, PP. 10-11.)**

18 **A.47** Given the availability of circuit switching capacity from other providers, the availability
19 of wireless and VoIP services, and SBC Missouri's stated intent to offer market-based
20 pricing for circuit switching, I would not conclude that CLECs will lose their current base

¹⁰⁷ SBC Missouri Interconnection Agreement (M2A), Attachment 15: E911, p. 7.

¹⁰⁸ SBC Missouri Interconnection Agreement (M2A), Attachment 15: E911, p. 7.

1 of customers. Certainly, those customers who do choose to leave their current CLEC may
2 choose service from SBC Missouri, as well as other providers. But there is no reason for
3 a systematic and permanent change from a CLEC to SBC to be the result of churn. After
4 all, these are the customers who have demonstrated a willingness to consider other
5 carriers. Mr. Kohly did not provide a reason why these customers would necessarily and
6 permanently return to SBC in light of these expanding options. The transition from
7 UNE-P to a more facilities-based industry structure may cause temporary dislocations,
8 but the process of competition itself is being strengthened as a result of a return to a more
9 rational unbundling policy.
10

11 **Q.48 ON PAGE 9, MR. KOHLY ARGUES THAT UNE-P AS A COMPETITIVE**
12 **ALTERNATIVE IS "IRRELEVANT." IN LIGHT OF THE FACT THAT THE**
13 **FCC IS POISED TO RELIEVE ILECS OF THEIR UNE-P OBLIGATIONS, IS**
14 **MR. KOHLY CORRECT?**

15 **A.48** No. Insofar as one is looking at CLEC line count statistics, data on UNE-P customers is
16 not irrelevant because, regardless of the future of UNE-P, UNE-P line counts provide an
17 indication of the willingness of customers to leave SBC Missouri for alternative
18 providers. The number of UNE-P (and resale, UNE-L, and self-supply-served customers)
19 demonstrates that customers are not "locked into" SBC, that they are willing to switch
20 providers. Indeed, given that UNE-P-served customers may now be in transition, there is
21 that much more churn for alternative providers to go after, to the consumers' benefit.
22

1 Q.49 ON PAGE 14 OF HIS REBUTTAL TESTIMONY, MR. KOHLY ARGUES THAT
2 "RESALE PROVIDES NO PRICE DISCIPLINE ON ILEC" AND THAT THE
3 "COMMISSION AGREED WITH THIS." PLEASE RESPOND.

4 A.49 I responded to this argument in my discussion of Mr. Peters' testimony.
5

6 Q.50 ON PAGE 17 OF HIS REBUTTAL TESTIMONY, MR. KOHLY ARGUES THAT
7 SERVICES MUST BE "FUNCTIONALLY EQUIVALENT IN THE MANNER IN
8 WHICH THEY ARE PROVISIONED." IS THIS A REASONABLE WAY OF
9 DETERMINING WHETHER SERVICES ARE SUBSTITUTES?

10 A.50 Certainly not, for all of the reasons that I provided in my direct testimony (and amplified
11 in this surrebuttal testimony) regarding the economic meaning "substitutability."
12

13 Q.51 ON PAGE 17 OF HIS TESTIMONY, MR. KOHLY INFERS FROM THE FACT
14 THAT ONLY ABOUT 5 PERCENT OF CUSTOMERS NATIONWIDE HAVE
15 CUT THE CORD THAT WIRELESS IS NOT A SUBSTITUTE FOR WIRELINE
16 SERVICE. PLEASE COMMENT.

17 A.51 Mr. Kohly argues, essentially, that, because according to certain public documents only
18 about 5 percent of respondents have cut the cord and completely replaced wireline service
19 with wireless service, that that is the full extent of the competitive effect. My earlier
20 response to Mr. McKinnie I explained why one cannot infer the full measure of
21 substitutability between wireless and wireline services from the observed number of

1 customers who have cut the cord at today's prices. I note that Mr. Shooshan discusses
2 some Missouri-specific detail from his own study.

3
4 **Q.52 MR. KOHLY CLAIMS THAT THE PERCENT OF CUSTOMERS WHO HAVE**
5 **CUT THE CORD AND GONE ENTIRELY WIRELESS IS "FAIRLY STATIC."**
6 **(KOHLY REBUTTAL TESTIMONY, P. 18.) IS THIS A REASONABLE**
7 **CHARACTERIZATION OF THE TREND IN WIRELESS SUBSTITUTION?**

8 A.52 Hardly. Mr. Kohly notes that the proportion of customers who use wireless as their only
9 service increased from 3 percent to 5 percent during a 3-year period. He claims that this
10 is a two percent increase and concludes that this is fairly static.¹⁰⁹ First, Mr. Kohly's
11 arithmetic is incorrect. An increase in the proportion of those who have entirely cut the
12 cord from 3 to 5 percent represents a 67 percent increase, not a 2 percent increase.¹¹⁰
13 With approximately 109 million households in the U.S., this means that the number of
14 wireless-only households has increased by about 2 million households, and possibly more
15 telephone lines, over three years. Moreover, this trend may be accelerating. As I earlier
16 noted in this testimony, Deutsche Bank characterized wireless as the "killer" for wireline
17 service and estimated that wireless substitution might be responsible for about 4 million
18 of the 8.5 million lines lost by the RBOCs during the past 7 quarters.¹¹¹

¹⁰⁹ *Kohly Rebuttal Testimony*, p. 19.

¹¹⁰ It is, of course, a 2 percentage *point* increase.

¹¹¹ *Deutsche Bank November 2004*, p. 16, at Figure 6.

1 I also noted in my direct testimony that InStat Research estimates that 14 percent
2 of wireless subscribers use their wireless phone as their "primary" phone.¹¹² It does not
3 seem unreasonable that such wireless users would relegate their home landline phone to,
4 essentially, a nice-to-have or backup status and would spend more money on features
5 associated with their wireless phones. Such a tradeoff would exert competitive pressure
6 on the ability of wireline firms to increase prices on features or on bundles. Finally, I
7 noted that InStat estimates that about 30 percent of wireline subscribers might cut the
8 cord by 2008.

9 Mr. Kohly might seek to minimize the importance of wireless substitution (and
10 then mischaracterize the figure as being "fairly static" when in fact there was an increase
11 of about two-thirds) but analysts such as InStat and Deutsche Bank appear to be
12 observing these changes in much more dynamic terms that imply increasing substitution
13 between wireless and wireline services.
14

15 **Q.53 EVEN SO, IS IT NOT TRUE THAT WIRELESS IS "NOT GOING TO DISPLACE**
16 **WIRELINE," SO THE TWO ARE NOT SUBSTITUTES? (KOHLY REBUTTAL**
17 **TESTIMONY, P. 20.)**

18 **A.53** No. "Displacement" is not a required—or common—feature of substitutability. Fords
19 are not going to displace or replace Chevrolets and Coke is not going to displace or
20 replace Pepsi, but these are certainly examples of substitute products.
21

¹¹² Aron Direct Testimony, p. 32.

1 Q.54 ON PAGES 21-22 OF HIS REBUTTAL- TESTIMONY, MR. KOHLY ALSO
2 NOTES THAT THE NUMBER OF PEOPLE WHO ACTUALLY PORTED THEIR
3 NUMBER FROM THEIR LANDLINE PHONE TO THEIR WIRELESS PHONE
4 WHEN THEY CUT THE CORD IS BELOW PREDICTIONS. PLEASE
5 COMMENT.

6 A.54 I concur with Mr. Kohly that the quantity of telephone numbers ported so far has fallen
7 short of predictions, but in at least some instances that is due to the inability of the
8 providers to properly port the number even where customers request it. The number of
9 landlines ported to wireless cited by Mr. Kohly reflects the success stories, not those who
10 failed or who decided to cut the cord without porting their number due to the publicity
11 about carriers' difficulties in porting numbers. It may also be the case that the ability to
12 port one's number is simply not as important to customers as many observers thought.
13 The fact remains that consumers are, in increasing numbers, abandoning wireline in favor
14 of wireless service.

15
16 Q.55 WOULD VOIP'S FUTURE BE UNCERTAIN BECAUSE OF UNCERTAIN TAX
17 TREATMENT, AS MR. KOHLY SUGGESTS? (*KOHLY REBUTTAL*
18 *TESTIMONY, P. 23.*)

19 A.55 While favorable regulatory and tax treatment doesn't hurt, as I demonstrated in my direct
20 testimony and mentioned earlier in this testimony, cable carriers have concluded that
21 VoIP provides genuine cost advantages over circuit-switched technology and that—along
22 with its additional features and functionality—is the economic source of its competitive

1 power, not just favorable tax treatment.¹¹³ The company white papers and investment
2 analyst reports that I discussed and cited in my direct testimony illustrate the current
3 thinking on the cost advantages of VoIP provided by cable carriers.
4

5 **Q.56 ON PAGE 24 OF HIS REBUTTAL TESTIMONY, MR. KOHLY CLAIMS THAT**
6 **THE RSMO AND EFFECTIVE COMPETITION REQUIRE THAT MARKETS**
7 **BE "IRREVERSIBLY COMPETITIVE." IS THIS TRUE?**

8 A.56 No, it is not. Mr. Kohly cites to Section 386.020(14)(c) of the RSMo; a section that does
9 not exist. I suspect that Mr. Kohly intends to refer to Section 386.020(13)(c) of the
10 RSMo. This section pertains to reasonable rates and the purposes and policies of the
11 RSMo. In fact, however, neither Section 386 nor Section 392 in their *entireties* make any
12 reference to "irreversibility" of competition. Mr. Kohly's use of the term (as a quote no
13 less) is not anchored in any of the relevant Missouri statutes and so represents a
14 misreading the statutes, in my view. On the contrary, RSMo provides specific guidance
15 and empowerment to the Commission in the event that competition does "reverse" itself,
16 a clear indication that irreversibility cannot be a criterion that is consistent with the rest of
17 the provisions in the RSMo.
18

19 **Q.57 MR. KOHLY CLAIMS THAT THE COMMISSION'S EARLIER CONCLUSION**
20 **REGARDING ENTRY BARRIERS WAS CONTINGENT ON THE**
21 **AVAILABILITY OF UNES (AND COMBINATIONS OF UNES). (KOHLY**

¹¹³ Aron Direct Testimony, pp. 35-41.

1 **REBUTTAL TESTIMONY, P. 26.) WOULD YOU AGREE WITH MR. KOHLY'S**
2 **CLAIM?**

3 A.57 No. In quoting from the Commission's decision, Mr. Kohly neglected to include the
4 paragraph immediately preceding the paragraph that he reproduces. The preceding
5 paragraph, which is the first and introductory paragraph to the section of the order entitled
6 "Existing Economic or Regulatory Barriers to Entry" reads as follows:

7 The fourth factor is consideration of the "[e]xisting economic or regulatory
8 barriers to entry." The number of companies that have become certificated
9 and have approved tariffs is relevant to analyzing the barriers to entry and
10 the overall status of competition. Southwestern Bell presented evidence of
11 many CLECs that have certificates and tariffs that authorize them to
12 provide service in all of Southwestern Bell's Missouri exchanges. The
13 Commission finds that the evidence presented by Southwestern Bell in the
14 form of a count of the number of CLECs or IXCs certified or tariffed in
15 the state or in any particular exchange is evidence of competition;
16 however, the mere existence of such "paper competition" by itself does not
17 persuade the Commission that effective competition exists.¹¹⁴

18 The Commission establishes its framework for assessing barriers to entry in this
19 paragraph, and nowhere does the Commission identify UNEs, or any other specific entry
20 strategy, as key to its assessment. Rather, the Commission considers the number of firms
21 that have actually entered as evidence of a lack of entry barriers (though not definitive
22 evidence of effective competition itself). This framework for assessing entry barriers by
23 observing the number of active carriers in the market is reinforced in the next paragraph
24 (quoted by Mr. Kohly), where the Commission writes: "Given the multitude of
25 companies providing services, it is clear that the regulatory barriers that once prevented

¹¹⁴ 2001 SBC Missouri Competitive Reclassification Order, pp. 27-28, footnote omitted.

1 competitors from offering alternatives in the marketplace are disappearing."¹¹⁵ I note here
2 that in the instant case, SBC Missouri has similarly supplied evidence of a multitude of
3 companies providing services, including a large number who are, according to Mr. Peters,
4 facilities-based.

5 Mr. Kohly is also incorrect as a factual matter to imply that UNEs have been
6 eliminated from the market. Based on the FCC's press release regarding its
7 (forthcoming) unbundling order, most UNEs will be retained, including all voice-grade
8 copper loops and most DS-1 loops, and resale will continue to be available for all
9 telecommunications services.¹¹⁶ Carriers will still have the ability to use UNEs and resale
10 to overcome entry barriers that would otherwise exist.

11 Finally, Mr. Kohly is emphatically incorrect to imply that the removal of UNE-P
12 from the market creates an entry barrier. By law, the FCC may not remove an element
13 from the list of UNEs unless lack of access to that element does not impair CLECs in
14 their ability to provide service. While the (phased) elimination of UNE-P will
15 undoubtedly harm certain CLECs and cause them either to leave the market, or as many
16 are doing, revamping their business strategies, and may therefore create a barrier for some
17 carriers, that is not equivalent to creating an economic entry barrier to the market.

18
19 **Q.58 DOES THE GEOGRAPHIC CONCENTRATION OF COMPETITION EXPOSE**
20 **CLECS TO ADDITIONAL RISK OF PREDATION, AS MR. KOHLY ARGUES?**
21 **(KOHLY REBUTTAL TESTIMONY, P. 78.)**

¹¹⁵ 2001 SBC Missouri Competitive Reclassification Order, pp. 27-28.

1 A.58 Mr. Kohly argues that facilities-based competition will cause CLEC service territories to
2 become more geographically concentrated and that this provides a deregulated SBC with
3 an opportunity to engage in predatory pricing by reducing prices in the areas where
4 CLECs serve, and offsetting the losses subsequently incurred by increasing prices in areas
5 where CLECs do not serve. There are a number of flaws with this argument.

6 First, it is not clear that facilities-based competition will increase geographic
7 concentration of service. Wireless service is available in every exchange in SBC
8 Missouri's service territory, and customers in 75 percent of those exchanges (accounting
9 for 96 percent of SBC Missouri's landline customers) have access to two or more
10 wireless carriers, even after excluding Cingular and AT&T Wireless.¹¹⁷ VoIP service is
11 available everywhere that broadband is available. Wireline facilities-based service can be
12 provided over unbundled loops (with a few exceptions at high capacity levels), using the
13 carrier's own switch or that of another CLEC like McLeodUSA or XO. Switching is
14 indeed specific to a geography, but as Mr. Unruh testified, CLECs can configure their
15 networks so that their switches have a far greater geographic reach than do switches in the
16 ILEC's network, including serving Missouri customers using switches located in other
17 states.¹¹⁸

18 Moreover, even if facilities-based CLEC service is geographically limited (that is,
19 each switch serves a defined, finite geographic area), this does not imply that competition
20 will be geographically limited, because CLECs would not rationally locate all in precisely

¹¹⁶ *FCC UNE Rules Press Release.*

¹¹⁷ *Unruh Direct Testimony*, pp. 36-37.

¹¹⁸ *Unruh Direct Testimony*, pp. 23-24.

1 the same places. CLECs would rationally consider where prior entrants have located
2 when considering whether it might not be most profitable to locate where others have not
3 and take advantage of the lack of competitors in that area. Hence, each CLEC may have a
4 limited geographic territory within the state, while each geographic area of the state may
5 be served by one or more (overlapping or non-overlapping) CLECs.

6 Aside from the weakness of his premise, Mr. Kohly's theory suffers from all of
7 the weaknesses of predatory pricing theory that I have already discussed. The idea that
8 predation would be easier when the competition is geographically concentrated ignores
9 the fact that any attempt to increase prices in one area in order to "finance" predation in
10 another would simply invite entry into the former area. If there were sufficient entry
11 barriers in that area to prevent entry from disciplining a price increase there, then
12 presumably the firm would raise prices there independent of any attempt at predation in
13 some other area, and an attempt at predation would require the firm to incur losses that it
14 could otherwise avoid. Unless the firm could later recoup those losses in the predation
15 market, it would simply have harmed itself. In other words, the analysis of predation, and
16 its well-accepted conceptual and practical flaws, apply when competition is
17 geographically "concentrated" as when it is not.

18
19 **Q.59 EVEN IF PREDATION WOULD BE RELATIVELY EASY FOR AUTHORITIES**
20 **TO IDENTIFY, WOULD IT NOT BE THE CASE THAT AN *EX POST* REVIEW**
21 **WOULD BE "TOO LATE," AS MR. KOHLY ARGUES? (*KOHLY REBUTTAL***
22 ***TESTIMONY*, P. 31.)**

1 A.59 No. As a public policy matter, the choice-between *ex ante* rules that limit pricing
2 flexibility and *ex post* enforcement of abuse of pricing flexibility must depend on the
3 relative benefits and risks of the two approaches. When the benefits of pricing flexibility
4 are great, as they are here, the risks of predation are low, as they are here, and the
5 potential harm to consumers of maintaining pricing constraints and discouraging price
6 competition is high, as it is here, it is socially preferable to rely on *ex post* enforcement
7 against anticompetitive activity, in the unlikely event that occurs, rather than *ex ante* rules
8 that are certain to chill competition. While there may indeed be damage if predation
9 occurs and is later detected and punished, there is clearly damage imposed on consumers
10 on an ongoing basis as long as competition is blunted by unnecessary rules that limit the
11 competitive interplay.

12
13 **Q.60 MR. KOHLY ARGUES THAT CLECS MAY BE INHIBITED IN THEIR**
14 **ABILITIES TO EXPAND DUE TO NON-SCALABLE SYSTEMS OR LACK OF**
15 **CAPITAL FUNDING. (KOHLY REBUTTAL TESTIMONY, P. 29.) ARE THESE**
16 **LEGITIMATE ENTRY BARRIERS IN THIS INSTANCE?**

17 A.60 No, they are not. I understand that Mr. Unruh responds to Socket's specific
18 complaints.¹¹⁹ As an economic matter, while it is true that expanding geographically may
19 require additional capital resources and may require that a CLEC's systems be "scalable,"
20 this is generally true of any business and it not an entry barrier. These are challenges the
21 firms must overcome in order to have viable business models. I have not seen in any of

¹¹⁹ Surrebuttal Testimony of Craig A. Unruh on Behalf of SBC Missouri, before the Missouri Public Service Commission, Case No. TO-2005-0035, January 21, 2005.

1 my reading of the investment literature any expression of concern that systems scalability
2 are impinging on CLEC growth as a general matter.

3 As for capital funding, investors are willing to provide capital when companies
4 have sound business plans and reasonable chances of success. Mr. Kohly has provided
5 no evidence of a general inability of carriers with sound business plans having access to
6 investment funds. I noted earlier that investment analysts have generally been
7 enthusiastic over the existing amount of, and growth potential for, cable voice telephony.
8 This would indicate that capital markets might be more favorably disposed to these
9 carriers. As I discussed earlier, it seems that facilities-based competition is intensifying
10 between cable and landline telephony and that this is driving capital telecom
11 investment.¹²⁰ Moreover, once capital investments are made, the ability to expand by
12 exploiting the capacity of the assets in place is typically high because the incremental
13 costs of additional customers, given the assets in place, are relatively low.

14 In its 2001 SBC reclassification order, the Commission noted that economic
15 conditions (which I take to include capital availability) and regulatory proceedings
16 "generally do not constitute insurmountable barriers to entry."¹²¹ I concur with this.
17 However, at that time, AT&T persuaded the Commission that the current situation was
18 such that it did provide a barrier to entry and expansion. Regardless of the merits of that
19 finding, I note that the situation has changed since 2001. It is worth recalling that the
20 country was in recession from March through November 2001, and in the midst of the
21 dot.com meltdown. Terrorists attacked the U.S. in New York and Washington in

¹²⁰ See, e.g., *Deutsche Bank November 2004*, pp. 34-50.

1 September 2001. The NASDAQ (where many smaller, public firms are traded) was in
2 the process of sinking below 2,000 as it continued its collapse from its high of about
3 5,100 in March 2000 to its low of 1,108 in October 2002.¹²² UNE-P was becoming an
4 important entry strategy by CLECs. Since that time, the NASDAQ has been recovering
5 from its trough, and has increased by over 90 percent to exceed 2,100 in December 2004.
6 Moreover, with the eclipsing of UNE-P, it seems that the situation in early 2005 with
7 respect to the capital market is more conducive to entry and expansion by facilities-based
8 CLECs.

9
10 **Q.61 MR. KOHLY ARGUES THAT WHOLESALE NETWORK ELEMENT PRICE**
11 **REGULATION IS NOT A SUBSTITUTE FOR RETAIL PRICE REGULATION**
12 **BECAUSE WHOLESALE RATES CANNOT BE DETERMINED WITH**
13 **REFERENCE TO RETAIL RATES. (KOHLY REBUTTAL TESTIMONY, P. 32.)**
14 **IS THERE ANY MERIT TO THIS ARGUMENT?**

15 **A.61** No. Let me first explain what I believe is Mr. Kohly's theory. He argues that wholesale
16 prices cannot discipline retail prices because the method by which wholesale (UNE)
17 prices are set is independent of whatever the retail price happens to be. He is arguing that
18 the disciplining effect of wholesale regulation is, or would be, the result of a formulaic
19 link between retail and wholesale prices. This is entirely incorrect. Indeed, it misses the
20 point of the 1996 Act entirely. The disciplining effect of wholesale price regulation is

¹²¹ 2001 SBC Missouri Reclassification Order, p. 10.

¹²² NASDAQ Composite (^IXIC), downloaded January 19, 2005 from
<http://finance.yahoo.com/q/bc?s=^IXIC&t=5y&l=on&z=m&q=1&c=>.

1 derived from the fact that, no matter how high retail prices might be, UNEs are to be
2 available at cost-based rates. The disengagement of retail prices from wholesale prices
3 maximizes the ability of wholesale UNE prices to discipline retail price increases. The
4 availability of resale at prices that are linked to retail rates provides discipline against
5 anticompetitive price decreases, as explained earlier, because even if retail prices were set
6 below cost, a competitor could compete by purchasing resale at a discount from those
7 below-cost retail prices. The combination of UNE prices at cost-based prices that are
8 independent of retail prices, and resale at prices that are linked via a discount to retail
9 prices, disciplines retail prices in both directions.

10 **RESPONSE TO MR. CADIEUX**

11
12 **Q.62 PLEASE PROVIDE A GENERAL RESPONSE TO THE ERRORS IN MR.**
13 **CADIEUX'S TESTIMONY.**

14 A.62 I first note that Part I of Mr. Cadieux's testimony is irrelevant to an evaluation of
15 effective competition. Mr. Cadieux's point seems to be that in its *Triennial Review*
16 *Order*, the FCC found that there is impairment in deploying loops.¹²³ That finding might
17 be something that the Commission might consider if SBC were seeking to remove loops
18 from the list of UNEs, but that is not the topic of this proceeding. Rather, wherever the
19 FCC finds that there would be impairment without UNE loops, UNE loops will continue
20 to be available. Hence, Mr. Cadieux's impairment discussion is irrelevant to this
21 proceeding. The FCC certainly did *not* find that there are entry barriers when the relevant

1 UNEs *are* provided. On the contrary, mandated provision of UNEs is required because
2 such provision is supposed to overcome the entry barriers where they exist.

3 In other sections of his testimony, Mr. Cadieux appears to argue that UNE-based
4 CLECs are the only relevant competitors and that the changes in UNE offerings has
5 created sufficient uncertainty in the state of competition that the Commission should
6 defer any competitive reclassification until the dust has settled.¹²⁴

7
8 **Q.63 HOW WOULD YOU RESPOND TO THAT ARGUMENT?**

9 A.63 As I have discussed, as a result of the recent regulatory changes and technological
10 developments, intra- and intermodal technologies that were developing or were placed on
11 hold, in some instances, during the period of widespread, below-cost UNE-P availability
12 are being funded, deployed, and are growing in their competitive impact. The regulatory
13 status quo in Missouri that depresses competition is not neutral, but instead influences
14 and distorts the development of competition.

15
16 **Q.64 IS MR. CADIEUX CORRECT IN CHARACTERIZING A LOOP AS A SUNK**
17 **COST BECAUSE IT CANNOT BE MOVED IF A CUSTOMER MOVES OR**
18 **GOES OUT OF BUSINESS? (*CADIEUX REBUTTAL TESTIMONY*, P. 8.)**

¹²³ *Cadieux Rebuttal Testimony*, pp. 7-14.

¹²⁴ *Cadieux Rebuttal Testimony*, p. 23.

1 A.64 No, Mr. Cadieux is not correct. A loop is not a sunk cost due to the fact that a customer
2 might move or go out of business. A loop (or at least the drop¹²⁵) is a sunk cost with
3 respect to the *location*, not necessarily to the *specific customer* in that location at a
4 particular time. If a customer moves or goes out of business, the loop provider retains the
5 facility at that location and the facility can serve a new customer at that location without
6 the loop provider having to incur the cost all over again. The implication is that once a
7 CLEC has deployed loops to locations, the CLEC faces a low opportunity cost of staying
8 in the market at those locations. This provides a situation where competition can be quite
9 fierce *because* the loop is a sunk cost at a particular location.

10
11 **Q.65 ON PAGE 15 OF HIS REBUTTAL TESTIMONY, MR. CADIEUX CLAIMS**
12 **THAT THERE IS NOT MUCH DEPLOYMENT OF TELEPHONE SERVICE BY**
13 **CABLE COMPANIES. PLEASE COMMENT.**

14 A.65 Mr. Cadieux's information dates from 2002 and is stale. It does not reflect the
15 developments in VoIP that have occurred since that time, as I have documented. Mr.
16 Cadieux's putative "rebuttal" testimony ignores both my testimony and the Missouri-
17 specific data provided by the other SBC witnesses.

18
19 **Q.66 ON PAGE 20 OF HIS REBUTTAL TESTIMONY, MR. CADIEUX CLAIMS**
20 **THAT THE "ELIMINATION OF UNE-P WILL CLEARLY REDUCE THE**

¹²⁵ To the extent that the distribution or feeder portions of the loop may be reused to serve other locations, they would not be considered sunk investments with regard to location, either.

1 **AMOUNT OF COMPETITION SBC ENCOUNTERS IN MISSOURI.” PLEASE**
2 **COMMENT.**

3 A.66 On the contrary, the elimination of UNE-P is likely to increase the amount of facilities-
4 based competition that SBC faces in Missouri, and the overall benefits brought to the
5 market by competition. The elimination of UNE-P removes the disincentives for
6 investing in facilities, and removes the handicap borne by carriers who would seek to
7 compete with subsidized UNE-P carriers. The removal of UNE-P from the market
8 renders viable strategies and investments that were discouraged or impossible in the
9 presence of UNE-P in the marketplace. Encouraging facilities-based competition
10 promotes commitments to the market that are not easily or quickly reversed, so that
11 competition is more sustainable. Consistent with the incentives and reward to engage in
12 facilities-based competition and innovation with the removal of UNE-P from the market,
13 heretofore UNE-P-based service providers such as AT&T and Z-Tel are re-inventing
14 themselves as VoIP service providers, as I documented earlier in this testimony, which is
15 expanding the available choices in Missouri. I have also described why one cannot
16 assume that UNE-P-served lines will revert to SBC. These customers have proved to be
17 available to other carriers, and there is no evidence that they necessarily would not seek
18 the services of Z-Tel, AT&T, Comcast, Time Warner, Packet 8, or any one of a host of
19 other service providers rather than return to SBC. Certainly these carriers have an
20 incentive to compete for these customers.

21
22 Q.67 **DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

1 A.67 Yes, it does.

BEFORE THE MISSOURI PUBLIC-SERVICE COMMISSION

In the Matter of the Second Investigation)
 Into the State of Competition in the) TO-2005-0035
 Exchanges of Southwestern Bell Telephone,)
 L.P., d/b/a SBC Missouri.)

MCI metro ACCESS TRANSMISSION SERVICES, LLC,
MCI WORLD COM COMMUNICATIONS, INC. AND INTERMEDIA
COMMUNICATIONS, INC. RESPONSES
TO SBC DATA REQUESTS 1-6

MCImetro Access Transmission Services, LLC, MCI WorldCom Communications, Inc., and Intermedia Communications, Inc. (collectively "MCI"), respectfully submit the following responses to Data Requests (the "DRs") 1-6 submitted by SBC Missouri. MCI's responses are made subject to, and without waiver of, the General and Specific Objections MCI previously made in response to SBC Missouri DRs 1-6. MCI's responses are provided by Stephen Morris.

DR No. 1:

Please provide a complete, un-redacted copy of your company's Annual Report to the MoPSC for the years ending (a) December 31, 2001, (b) December 31, 2002, and (c) December 31, 2003.

RESPONSE:

Subject to MCI's objections to this DR, SBC can inspect the non-public versions of the 2003 Annual Reports for MCImetro Access Transmission Services, LLC, MCIWorldCom Communications, Inc., and Intermedia at the offices of Curtis, Heinz, Garrett & O'Keefe pursuant to the terms of the Protective Order. The non-public

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1 of 14

information in these reports is HIGHLY CONFIDENTIAL. This information concerns market specific information relating to services offered in competition with others.

DR No. 2:

Please provide the information requested in the Competitive Local Exchange Carrier Access Line Report from the MoPSC Annual Report for the year ended December 31, 2004 (or the most recent 2004 year to date information available).

RESPONSE:

Subject to MCI's objections to this DR, MCI provides herewith its response to a similar question from Staff as its response hereto. This response to Staff is HIGHLY CONFIDENTIAL. This information concerns market specific information relating to services offered in competition with others.

DR No. 3:

Please state whether your company has any agreement or other arrangement to use facilities (e.g. switching, loops, transport) obtained from another telecommunications company other than SBC Missouri to provide any residential or business telecommunications services in Missouri. If so, please identify those other telecommunications companies and provide a copy of the agreement. If no written agreement exists, please provide a general description of the arrangement.

RESPONSE:

Subject to MCI's objections to this DR, MCI states that the only such agreement is addressed in DR4.

DR No. 4:

On December 16, 2004, McLeodUSA announced that it entered into a multi-year wholesale agreement with MCI to enable MCI to provide local telecommunications services to its residential customers using McLeodUSA facilities (a copy of the article is attached). Please (a) state whether Missouri is one of the 25 states covered by this agreement, (b) provide a copy of this agreement, and (c) state approximately when MCI's Missouri customers will be migrated to McLeodUSA facilities.

RESPONSE:

Subject to its objections to this DR, MCI responds as follows:

- (a) Missouri is one of the states covered by this agreement.
- (b) This agreement is highly confidential and based on objections will not be described in detail or provided.
- (c) MCI has not yet made any determinations as to timetables under the McLeod agreement.

DR No. 5:

State whether you offer and/or provide Voice Over Internet Protocol telephone services in Missouri and, if so, then further (a) identify when you began offering and/or providing such services, (b) identify each type and/or class of customer to whom you offer and/or provide such services, (c) identify the specific geographical exchange areas

in which you offer and/or provide such services, (d) state precisely the number of customers you have had for such services as of your last three fiscal and/or calendar years, and (e) provide any and all documents, including but not limited to those indicating customer counts, marketing and/or sales contracts, brochures or other promotional materials, and/or business plans referring or pertaining to your responses to the foregoing subparts (a) through (d).

RESPONSE:

Subject to its objections to this DR, MCI responds as follows:

- (a) In 2001, MCI began offering the MCI Advantage to enable business customers with data networks to utilize those data networks to pass voice traffic. That capability – sometimes referred to as VoIP – allows MCI's business customers to operate more efficiently without having to operate separate voice and data networks.
- (b) The MCI Advantage is a business offering.
- (c) The MCI Advantage is available to customers within MCI's facilities-based footprint, which includes the St. Louis, Kansas City, and Springfield metro areas.
- (d) MCI currently has *** [HIGHLY CONFIDENTIAL] customers of the MCI Advantage in SBC territory in Missouri. This information concerns market specific information relating to services offered in competition with others.
- (e) Information regarding the MCI Advantage is on the following website: http://global.mci.com/external/service_guide/non_reg/cp_mci_advantage.doc.

DR No. 6:

Please provide any and all documents, including but not limited to studies, analyses, research and/or any qualitative or quantitative data, referring or pertaining to the potential and/or actual substitution and/or replacement of (a) wireless services, and/or

(b) Internet, Voice Over Internet Protocol or Internet protocol-enabled services, for wireline local exchange telecommunications services.

RESPONSE:

Subject to its objections to this DR, MCI refers SBC to publicly-available FCC Industry Analysis reports put out by the FCC Wireline Competition Bureau.

Respectfully submitted,

Curtis, Heinz,
Garrett & O'Keefe, P.C.

/s/ Carl J. Lumley

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Attorneys for MCImetro Access
Transmission Services, LLC, MCI
WorldCom Communications, Inc., and
Intermedia Communications, Inc.

Certificate of Service

A true and correct copy of the foregoing was served upon the parties identified on the attached service list on this 19th day of January, 2005 by either placing same in the U.S. Mail, postage paid or via e-mail:

Leo J. Bub
Southwestern Bell Telephone, L.P.
d/b/a SBC Missouri
One SBC Center, Room 3520
St. Louis, Missouri 63101
(314) 247-0014 (FAX)

/s/ Carl J. Lumley

Missouri Public Service Commission

Data Request

Data Request No.	68, 71, 72
Company Name	MCIMetro Access Transmission Services, LLC MCI WorldCom Communications, Inc. and Intermedia Communications, Inc.
Case/Tracking No.	TO-2005-0035
Date Requested	12/20/2004
Issue	Telephone Specific - Other Telephone Issues
Requested From	Carl Lumley
Requested By	Bill Peters
Brief Description	Access Line Counts
See Attachment Description	Please provide data detailing the number of access lines your company is serving as of December 16, 2004, in SBC Missouri exchanges. Please fill out the attached spreadsheet. It includes residential and business categories of resold, UNE-P, UNE-L, Full Facilities Based for each SBC Missouri exchange.

Response: Subject to objections, MCI states the line count information is attached for all responding entities. The line count is provided mostly from November 1, 2004 to December 31, 2004. The data contained in the attachment is Highly Confidential. This information concerns market specific information relating to services offered in competition with others.

Response from: Stephen F. Morris, MCI

**PAGES 7-14 OF THIS DOCUMENTS HAVE BEEN CLASSIFIED AS
"HIGHLY CONFIDENTIAL"
IN THEIR ENTIRETY**

NON-PROPRIETARY

BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

In the Matter of the Second Investigation)
Into the State of Competition in the) TO-2005-0035
Exchanges of Southwestern Bell Telephone,)
L.P., d/b/a SBC Missouri.)

BIG RIVER TELEPHONE COMPANY, LLC'S RESPONSES
TO SBC DATA REQUESTS 1-5

Big River Telephone Company, LLC, ("Big River"), respectfully submits the following responses to Data Requests (the "DRs") 1-5 submitted by SBC Missouri. Big River's responses are made subject to, and without waiver of, the General and Specific Objections Big River previously made in response to SBC Missouri DRs 1-5. Big River's responses were provided by Jerry Howe.

Question 1.

Please provide a complete, un-redacted copy of your company's Annual Report to the MoPSC for the years ending (a) December 31, 2001, (b) December 31, 2002 and (c) December 31, 2003.

Response 1:

Subject to objections, see attached Annual Report for period ended December 31, 2003 designated as HIGHLY CONFIDENTIAL. This information concerns market specific information relating to services offered in competition with others.

Question 2.

Please provide the information requested in the Competitive Local Exchange Carrier Access Line Report from the MoPSC Annual Report for the year ended December 31, 2004 (or the most recent 2004 year to date information available).

Response 2:

Subject to objections, see attached information as of 12/31/04, which is HIGHLY CONFIDENTIAL. This information concerns market specific information relating to services offered in competition with others.

Question 3.

Please state whether your company has any agreement or other arrangement to use facilities (e.g., switching, loops, transport) obtained from another telecommunications company other than SBC Missouri to provide any residential or business telecommunications services in Missouri. If so, please identify those other telecommunications companies and provide a copy of the agreement. If no written agreement exists, please provide a general description of the arrangement.

Response 3:

Subject to objections, Big River states it has such agreements with two companies to provide network access. These agreements are HIGHLY CONFIDENTIAL and may be

inspected at the offices of Curtis, Heinz, Garrett & O'Keefe, P.C. This information concerns market specific information relating to services offered in competition with others.

Question 4.

State whether you offer and/or provide Voice Over Internet Protocol telephone services in Missouri and, if so, then further (a) identify when you began offering and/or providing such services, (b) identify each type and/or class of customer to whom you offer and/or provide such services, (c) identify the specific geographical exchange areas in which you offer and/or provide such services, (d) state precisely the number of customers you have had for such services as of your last three fiscal and/or three calendar years, and (e) provide any and all documents, including but not limited to those indicating customer counts, marketing and/or sales contracts, brochures or other promotional materials, and/or business plans referring or pertaining to your responses to the foregoing subparts (a) through (d).

Response 4:

Subject to objections, yes.

- (a) Began offering service January 1, 2005.
- (b) Residential and business customers.
- (c) Offering limited to the following exchanges: Advance, Bernie, Bloomfield, Campbell, Delta, Dexter, Essex, Malden, Pocahontas, and Wyatt.
- (d) No customers as yet.
- (e) None available as yet.

Question 5.

Please provide any and all documents, including but not limited to studies, analyses, research and/or any qualitative or quantitative data, referring or pertaining to the potential and/or

actual substitution and/or replacement of (a) wireless services, and/or (b) Internet, Voice Over Internet Protocol or Internet protocol-enabled services, for wireline local exchange telecommunications services.

Response 5:

Subject to objections, none.

Respectfully submitted,

Curtis, Heinz,
Garrett & O'Keefe, P.C.

/s/ Carl J. Lumley

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Attorneys for Big River Telephone Company, LLC

Certificate of Service

A true and correct copy of the foregoing was served upon the parties identified on the attached service list on this 21st day of January, 2005 by either placing same in the U.S. Mail, postage paid or via e-mail: -

Leo J. Bub
Paul G. Lane
Robert J. Gryzmala
Mimi B. MacDonald
Southwestern Bell Telephone, L.P.
d/b/a SBC Missouri
One SBC Center, Room 3520
St. Louis, Missouri 63101
(314) 247-0014 (FAX)

/s/ Carl J. Lumley

Big River Telephone Company, LLC

(Full Company Name)

**COMPETITIVE
LOCAL EXCHANGE CARRIER
ANNUAL REPORT
TO THE
MISSOURI PUBLIC SERVICE COMMISSION**

For Period Ending December 31, 2003

**PAGES 5-25 OF THIS DOCUMENTS HAVE BEEN CLASSIFIED AS
"HIGHLY CONFIDENTIAL"
IN THEIR ENTIRETY**

NON-PROPRIETARY