AFFIDAVIT

STATE OF MISSOURI

COUNTY OF BOONE

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared Eric Fogle, who, being by me first duly sworn deposed and said that:

He is appearing as a witness before the Kentucky Public Service Commission in Case No. 2004-00427, Petition of BellSouth Telecommunications, Inc. to Establish Generic Docket to Consider Amendments to Interconnection Agreements Resulting from Changes of Law, and if present before the Commission and duly sworn, his direct testimony would be set forth in the annexed testimony consisting of 28 pages and 3 exhibits.

Eric Fogle

SWORN TO AND SUBSCRIBED BEFORE ME DAY OF AUGUST, 2005 THAS

Notary Public

LORI M. CONDRON Notary Public - Notary Seal State of Missouri County of Boone My Commission Expires October 22, 2006

1		BELLSOUTH TELECOMMUNICATIONS, INC.
2		DIRECT TESTIMONY OF ERIC FOGLE
3		BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION
4		DOCKET NO. 2004-00427
5		AUGUST 16, 2005
6		
7	Q.	PLEASE STATE YOUR NAME, YOUR POSITION WITH BELLSOUTH
8		TELECOMMUNICATIONS, INC. ("BELLSOUTH"), AND YOUR BUSINESS
9		ADDRESS.
10		
11	A.	My name is Eric Fogle. I am employed by BellSouth Resources, Inc., as a
12		Director in BellSouth's Interconnection Operations Organization. My business
13		address is 675 West Peachtree Street, Atlanta, Georgia 30375.
14		
15	Q.	PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR BACKGROUND
16		AND EXPERIENCE.
17		
18	A.	I attended the University of Missouri in Columbia, where I earned a Master of
19		Science in Electrical Engineering Degree in 1993 and Emory University in
20		Atlanta, where I earned a Master of Business Administration degree in 1996.
21		After graduation from the University of Missouri in Columbia, I began
22		employment with AT&T as a Network Engineer, and joined BellSouth in early
23		1998 as a Business Development Analyst in the Product Commercialization Unit.
24		From July 2000 through May 2003, I led the Wholesale Broadband Marketing
25		group within BellSouth. I assumed my current position in June 2003. First, as a

Business Analyst, and then as the Director of the Wholesale Broadband Marketing Group and continuing in my current position, I have been, and continue to be, actively involved in the evolution and growth of BellSouth's network including provisions for accommodating Digital Subscriber Line ("DSL") based services as well as the underlying technology.

6

In addition to my involvement in broadband technology and product
development, I am also actively involved with BellSouth's wholesale business
and have participated in the development of BellSouth's position prior to
negotiations in interconnection agreements, including developing contract
language and negotiating change of law provisions.

12

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

14

13

A. The purpose of my testimony is to provide BellSouth's position on Issues 6, 17,
18, 19, 20, 23, 24, 25, 26, 27, and 28. These issues are summarized in the June
30, 2005, Joint Issues Matrix filed with the Kentucky Public Service Commission
("Commission").

19

20 Q. DO YOU HAVE ANY PRELIMINARY COMMENTS?

21

A. Yes. There are numerous unresolved issues in this docket that have underlying
 legal arguments. Because I am not an attorney, I am not offering a legal opinion
 on these issues. I respond to these issues purely from a policy or technical
 perspective. BellSouth's attorneys will address issues requiring legal argument.

Issue 6: Are HDSL-capable copper loops the equivalent of DS1 loops for the purpose of evaluating impairment?

WHAT IS BELLSOUTH'S POSITION ON THIS ISSUE?

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1

5

Q.

6

7 A. BellSouth has outlined its legal position on this issue in its June 2, 2005, Motion 8 for Summary Judgment filed with the Commission. As a practical matter, 9 however, this should not be a contentious issue between the parties because 10 BellSouth counted Unbundled Network Element ("UNE") High-bit rate Digital 11 Subscriber Loop ("HDSL") capable copper loops on a one-for-one basis, and did 12 not convert each HDSL capable loop to voice grade equivalents. Thus, the 13 Competitive Local Exchange Carriers' ("CLECs") concern that BellSouth will 14 have "converted nearly all of its copper loop plant" is simply misplaced. (See 15 July 22, 2005 Joint CLECs' Response to BellSouth's Motion for Summary 16 Judgment). BellSouth is not trying to interpret the Federal Communications 17 Commission ("FCC") ruling to literally mean that every loop that is capable of 18 being provisioned using HDSL is counted as 24 business lines for purposes of the impairment test (regardless of a loop's current use). (See July 22, 2005, Joint 19 20 CLEC Response to BellSouth's Motion for Summary Judgment at page 7.)

21

I would note that although BellSouth has not counted each HDSL line on a 24 line equivalent basis, the FCC clearly contemplated that every currently deployed HDSL loop would be counted as a 24 line equivalent, and that BellSouth has opted to undercount business lines in various central offices. Specifically, the

1		FCC said in the Triennial Review Order ("TRO") that, "Carriers frequently use a
2		form of DSL service, i.e., High-bit rate DSL (HDSL), both two-wire and four-
3		wire HDSL, as the means for delivering T1 services to customers. We will use
4		DS1 for consistency but note that a DS1 loop and a T1 are equivalent in speed and
5		capacity, both representing the North American standard for a symmetric digital
6		transmission link of 1.544 Mbps."
7		
8	Q.	WHAT IS HDSL?
9		
10	А.	HDSL is fully standardized in T1.418-2002 by the Alliance for
11		Telecommunications Industry Solutions ("ATIS"). HDSL is the preferred
12		technology used to provision a symmetrical 1.544 mega-bits per second ("mbps")
13		T1 on a normal, shielded, bridged (but not loaded) twisted pair \dots^1 BellSouth
14		provisions multiple versions of HDSL technology, specifically, a standard two-
15		wire configuration (referred to as HDSL2), and a standard four-wire configuration
16		(referred to as HDSL4).
17		
18		With the symmetrical bit-rate for HDSL established at 1.544Mbps (regardless of
19		which type of HDSL technology is being deployed), this loop has also become
20		known as a "T1." The term T1 has been accepted by the FCC as an
21		interchangeable term with DS1. Therefore, an HDSL loop is equivalent to a DS1
22		loop, and, in most cases, HDSL is the technology used to provision the DS1
23		service to the customer.
24		

¹ See Newton's Telecom Dictionary, 12th Edition, Page 310.

1		Since provisioned DS1s are counted as 24 64 kbps-equivalents for purposes of
2		establishing the number of business lines, then logically DS1 lines currently
3		deployed utilizing HDSL technology should be counted in the same manner.
4		
5	Issue	17: Is BellSouth obligated pursuant to the Telecommunications Act of 1996 and
6	FCC	Orders to provide line sharing to new CLEC customers after October 1, 2004?
7		
8	Q.	WHAT IS BELLSOUTH'S POSITION ON THIS ISSUE?
9		
10	A.	The FCC has made clear in paragraphs 199, 260, 261, 262, 264, and 265 of the
11		TRO that BellSouth is not obligated to provide new line sharing arrangements
12		after October 1, 2004. BellSouth filed a Motion for Summary Judgment on June
13		2, 2005 that fully addresses the legal arguments associated with this issue.
14		
15		Even though the legal issues have been addressed in BellSouth's Motion for
16		Summary Judgment, some factual background may helpful to put this issue in
17		perspective. BellSouth currently has approximately three hundred
18		interconnection agreements that contain line sharing language; however, only nine
19		(9) CLECs have active line sharing arrangements being used to serve end-user
20		customers. Eight (8) of the nine (9) CLECs have placed new orders for new line
21		sharing arrangements after October 1, 2004, and are continuing to pay line sharing
22		rates that are significantly lower than paying for unbundled access to the entire
23		loop, even though the FCC has explained that "we find that allowing competitive
24		LECs unbundled access to the whole loop and to line splitting but not requiring
25		the HFPL [High Frequency Portion of the Loop] to be separately unbundled

1 creates better competitive incentives than the alternatives." *TRO*, \P 260. These 2 CLECs should be ordered to pay the stand-alone loop rate for all line sharing 3 arrangements ordered since October 2004 consistent with the rules set forth by the 4 FCC.

5

6 Q. IS LINE SHARING A NECESSARY COMPONENT FOR CLECs TO 7 CONTINUE TO OFFER BROADBAND SERVICE?

8

9 A. No. As the FCC has recognized, CLECs have numerous options available for 10 serving the broadband needs of their respective end-user customers, when line 11 sharing is not available, that create better competitive incentives. Specifically, 12 CLECs can: (1) utilize line splitting, (2) purchase the entire loop facility, (3) 13 provision the end-user customer with Integrated Services Digital Network 14 ("ISDN") Digital Subscriber Line ("IDSL") service, (4) partner with a cable 15 broadband provider to provide cable modem broadband service, (5) purchase 16 BellSouth's tariff wholesale DSL offering, (6) provision the end-user with a 17 dedicated or shared T1, (7) deploy a fixed wireless broadband technology, (8) 18 partner with a satellite broadband provider and finally, (9) build their own loop 19 facilities or lease loop facilities from a third party. Evaluation of the relative 20 merits of each option will depend upon the type and speed of broadband service 21 purchased by the end-user customer, the location of the end-user customer, and 22 the relative costs associated with providing broadband service via each option.

23

Moreover, since the FCC's order eliminating Line Sharing, one of the most active
 line-sharing CLECs -- Covad -- has issued a series of press releases demonstrating

its ability to compete without line sharing. For example, Covad has actively been
 signing line splitting agreements, utilizing the entire loop to offer both broadband
 and voice, and is even deploying fixed wireless broadband technology; all since
 the FCC rules eliminating line sharing were issued.

5

Exhibit EF-3 provides a sampling of Covad press releases, which are available as
a matter of public record on Covad's website

8 (www.covad.com/companyinfo/pressroom). These press releases highlight how
9 innovative Covad has continued to be both before and after line sharing has been
10 eliminated.

11

12 In addition to all of the press releases highlighted in Exhibit EF-3, Covad is 13 aggressively pursuing the deployment of a fixed wireless broadband solution. In 14 the October 1, 2004 issue of America's Network magazine, Covad clearly 15 articulated its plan to provide broadband capability via WiMax technology in 16 2005. Covad stated that it had successfully completed an initial trial in Louisville, 17 Kentucky, and is in the process of rolling out a commercial trial in the San 18 Francisco Bay Area in California. Covad hopes to have a commercially deployed 19 WiMax service offering (that is completely independent of any facilities from the 20 ILEC) by Spring or Summer of 2005. Even though WiMax is relatively new 21 technology, Covad is apparently bullish on wireless broadband, and stated 22 "Should WiMAX not continue forward for whatever reason, Covad's strategies 23 would remain the same."

24

25

All of these examples clearly show that CLECs, and especially Covad, are not

impaired without line sharing.

2

3 Issue 18: If the answer to the foregoing issue is negative, what is the appropriate
4 language for transitioning off a CLEC's existing line sharing arrangements?

- 5
- 6

7

Q. WHAT IS BELLSOUTH'S POSITION ON THIS ISSUE?

8 A. Exhibit EF-1, which is attached to my testimony, contains BellSouth's proposed 9 transition language for line sharing arrangements placed in service between 10 October 2, 2003 and October 1, 2004. There is no transition period for line 11 sharing arrangements placed in service after October 1, 2004; rather, as I 12 explained above, the Commission should order CLECs to pay the stand-alone 13 loop rate for such arrangements, and add no new line sharing arrangements going 14 forward. CLECs can serve new customers through a line splitting arrangement or 15 through the use of the stand-alone copper loop, or any of the other methods 16 mentioned above.

17

18 Since only nine (9) CLECs currently have active line sharing circuits, BellSouth's proposed transition language is not included in BellSouth's standard 19 20 Interconnection Agreement ("ICA"). This language is consistent with the FCC's 21 transition plan established in Paragraph 265 of the TRO and in 47 C.F.R. § 22 51.319(a)(1)(i)(B), which details a three-year transition period for line sharing 23 arrangements placed in service between October 2, 2003 through October 1, 2004. 24 Features of the plan include recurring rates rising to 25 percent of the recurring 25 rates for stand-alone copper loops for a particular location during the first year;

1		the recurring charge increasing to 50 percent of the recurring rate for stand-alone
2		copper loop for a particular location during the second year; and, in the last year
3		of the transition period, the recurring charge increasing to 75 percent of recurring
4		rate for a stand-alone loop for a location. See Exhibit EF-2, which is attached to
5		my testimony, for Kentucky rates.
6		
7	Issue	19: What is the appropriate ICA language to implement BellSouth's obligations
8	with r	regard to line splitting?
9		
10	Q.	PLEASE EXPLAIN YOUR UNDERSTANDING OF BELLSOUTH'S
11		OBLIGATIONS TO PROVIDE LINE SPLITTING.
12		
13	A.	BellSouth's legal position that its line splitting obligations are limited to when a
14		CLEC purchases a stand-alone loop and the CLEC provides its own splitter is
15		detailed in BellSouth's Motion for Summary Judgment.
16		
17		BellSouth's contract language (Section 3 in Attachment 2) provides for line
18		splitting over an Unbundled Network Element-Loop ("UNE-L"), and for a limited
19		time, with Unbundled Network Element-Platform ("UNE-P") arrangements.
20		
21		With respect to line splitting with UNE-L, BellSouth offers the following
22		language:
23		
24 25 26 27		3.1 <u>Line Splitting – UNE-L.</u> In the event < <customer_short_name>> provides its own switching or obtains switching from a third party, <<customer_short_name>> may engage in line splitting arrangements with another CLEC using a splitter, provided by</customer_short_name></customer_short_name>

1 2		< <customer_short_name>>, in a Collocation Space at the central office where the loop terminates into a distribution frame or its equivalent.</customer_short_name>
3		
4		BellSouth's language involves a CLEC purchasing a stand-alone loop (the whole
5		loop) and providing its own splitter in its central office leased collocation space,
6		and then sharing the portion of the loop frequency not in use with a second CLEC.
7		
8	Q.	ARE CLECS IMPAIRED WITHOUT ACCESS TO BELLSOUTH'S
9		SPLITTERS?
10		
11	A.	No. Splitter functionality can easily be provided by either an inexpensive stand-
12		alone splitter or by utilizing the integrated splitter built into all Asynchronous
13		Digital Subscriber Line ("ADSL") platforms.
14		
15	Q.	IS BELLSOUTH OBLIGATED TO PROVIDE THE SPLITTER FOR THE
16		CLEC?
17		
18	A.	No. A CLEC can provide the splitter in its leased collocation space in
19		BellSouth's central office. Using its own splitter, the CLEC is free to offer voice
20		service on the low frequency portion of the loop, and have another CLEC provide
21		broadband service, such as DSL, over the high frequency portion of the loop (or
22		vice versa).
23		
24	Issue	20: SUB-LOOP CONCENTRATION: a) What is the appropriate ICA
25	langu	age, if any, to address sub loop feeder or sub loop concentration? b) Do the
26	FCC'	s rules for sub loops for multi-unit premises limit CLEC access to copper

4

Q. WHAT IS BELLSOUTH'S POSITION ON THIS ISSUE?

5

6 A. First, with respect to part (a) of this issue, BellSouth is not required to unbundle 7 subloop feeder cable or subloop concentration functions, therefore, no ICA 8 language is necessary, or offered. The FCC was very clear in the TRO when it 9 stated, "We do not require incumbent LECs to provide access to their fiber feeder loop plant on an unbundled basis as a subloop UNE."² The FCC also states that it 10 "do[es] not require incumbent LECs to provide unbundled access to their feeder 11 12 loop plant as stand-alone UNEs, thereby limiting incumbent LEC subloop unbundling obligations to their distribution loop plant."³ The FCC maintained 13 14 access to the subloop distribution loop plant because it is the so-called "last mile" 15 where there is a unique copper distribution pair being used to provide service to 16 each customer connection.

17

Those sub-loop elements that BellSouth is obligated to provide are detailed in
section 2.8 of Attachment 2, which is attached to Ms. Pamela A. Tipton's Direct
Testimony as Exhibit PAT-1.

21

22 Q. PLEASE EXPLAIN THE DIFFERENT TERMS USED TO DISCUSS THE23 FACILITIES AT ISSUE.

² TRO at Para. 253.

³ TRO at Para. 254.

2 A. As background, a local loop can be subdivided into its component "subloop" 3 parts: (1) loop feeder facilities; (2) loop concentrator/multiplexer facilities (which 4 BellSouth uses in some cases); and (3) loop distribution facilities. The feeder 5 facilities are usually larger copper or often fiber cables that serve many customers 6 in a particular area and connect to the central office. Loop 7 concentrator/multiplexer facilities translate electronic signals between multiple 8 individual loop distribution customers (where an individual copper pair is being 9 used to provide each customer's individual service) and aggregated loop feeder 10 facilities that carry the combined traffic back to the central office. Loop 11 distribution facilities are often referred to as the "last mile." Loop distribution 12 facilities are those that extend to the demarcation point at a customer's premises. 13 Loop feeder and loop distribution facilities can be connected at cross connection 14 boxes, commonly referred to as cross boxes, or by use of electronic loop 15 concentrator/multiplexer equipment, such as Digital Loop Carrier ("DLC").

16

Q. SUBPARTS B AND C OF THIS ISSUE RELATE TO THE POINTS AT
WHICH BELLSOUTH IS OBLIGATED TO PROVIDE ACCESS TO THE
CLEC. PLEASE COMMENT ON THIS.

20

A. The FCC stated clearly that BellSouth must provide access on an unbundled basis
to that portion of the copper loop necessary to access the end user's premises, that
is, loop distribution. See 47 C.F.R. 51.319(b). At a single family home or standalone business location, loop distribution access is provided at the customer's
Network Interface Device ("NID").

2 In a multi-tenant or multi-unit building environment, loop distribution access is 3 provided to either a NID or an access terminal. The access terminal or NID is the 4 point at which the CLEC can access the unbundled portion of the subloop 5 distribution cable which serves individual units of a multi-tenant building. In all 6 cases, the distribution cable ends at the NID, or at an access terminal. The LEC, 7 the CLEC, or the building owner can own the cable from the access point into the 8 building. 9 10 The access terminal provides the CLEC with the ability to reach the end user 11 without compromising the security or reliability of BellSouth's network. The 12 access terminal can be located in close proximity to a garden terminal, a term 13 used to define a point in BellSouth's network used to serve a multi-unit building. 14 (a) What is the appropriate definition of minimum point of entry 15 *Issue* 23:

16 ("MPOE")? (b) What is the appropriate language to implement BellSouth's 17 obligation, if any, to offer unbundled access to newly-deployed or 'greenfield' fiber 18 loops, including fiber loops deployed to the MPOE of a multiple dwelling unit that is 19 predominantly residential, and what, if any, impact does the ownership of the inside 20 wiring from the MPOE to each end user have on this obligation?

21

1

Issue 24: What is the appropriate ICA language to implement BellSouth's obligation to
provide unbundled access to hybrid loops?

24

25 Item 28: What is the appropriate language, if any, to address access to overbuild

3 Q. WHY IS BELLSOUTH CHOOSING TO ADDRESS THESE THREE (3) 4 ISSUES TOGETHER?

A. The basis for the FCC requirements for access to loop types drives the FCC's rules for access to MPOE, hybrid loops, and Fiber to the Home ("FTTH")/Fiber to the Curb ("FTTC") loops.

- 10 Q. WHAT IS THE BASIS FOR THE FCC REQUIREMENTS FOR ACCESS TO11 LOOP TYPES?

A. The basis for the FCC requirements for access to loop types is to ensure that
CLECs continue to have access to currently existing last mile copper facilities, for
as long as those facilities continue to exist. The FCC's definitions and rules for
MPOE, hybrid loops, and FTTC/FTTH rules are consistent with this principle.
Before discussing the interplay between the various rules, it is critical that the
definitions of the terms be used consistently.

20 Q. HOW DOES THE FCC DEFINE MPOE?

A. The FCC has defined MPOE as "either the closest practicable point to where the
wiring crosses a property line or the closest practicable point to where the wiring
enters a multiunit building or buildings." 47 C.F.R. § 68.105(b). Consequently,
in cases where the property owner has elected the use of MPOE, the MPOE is

1 effectively the demarcation point between the inside wiring facilities at the multiple dwelling unit ("MDU") and BellSouth's loop facilities.⁴ The FCC 2 3 further states in the rules, "The reasonable and nondiscriminatory standard 4 operating practices of the provider of wireline telecommunications services shall 5 determine which shall apply. The provider of wireline telecommunications 6 services is not precluded from establishing reasonable classifications of multiunit 7 premises for purposes of determining which shall apply. Multiunit premises 8 include, but are not limited to, residential, commercial, shopping center and 9 campus situations." 10 11 DOES BELLSOUTH AGREE WITH THE FCC'S DEFINITION OF MPOE? Q. 12 13 Yes. Since these rules became effective on August 13, 1990, they have been the A. 14 guidelines behind BellSouth's practices for these types of installations in 15 Kentucky, and BellSouth does not offer a different definition for MPOE. 16 17 WHAT IS MEANT BY "GREENFIELD"? Q. 18 19 A. The term "Greenfield" is used in telecommunications to describe an area of the 20 public switched telephone network outside plant infrastructure that is being built 21 to support new residential and commercial construction. 22 23 Q. WHAT IS A HYBRID LOOP? 24

⁴ In describing this section of the *MDU Order on Reconsideration*, the FCC referred to the section as the "*MDU Demarcation Point*." *MDU Order on Reconsideration* at 10.

1	A.	A hybrid loop is a loop consisting of both copper cable and fiber cable. As is the
2		case with all loops, the definition includes any of the associated electronics, such
3		as DLC systems. This is how the FCC defined a hybrid loop in the TRO at
4		footnote 832, and it is the same definition provided in Section 2.1.3 of
5		BellSouth's Attachment 2:
6		
7 8 9		2.1.3 A hybrid Loop is a local Loop, composed of both fiber optic cable, usually in the feeder plant, and copper twisted wire or cable, usually in the distribution plant.
10		
11	Q.	PLEASE DISCUSS LOOP FACILITIES THAT BELLSOUTH OWNS IN
12		MPOE SETTINGS.
13		
14	A.	BellSouth owns loop facilities to multi-tenant and multi-unit buildings. In these
15		cases, BellSouth follows the FCC's rules regarding establishment of MPOE. In
16		today's modern network where fiber optic cable can serve a multi-unit building,
17		BellSouth understands its obligation to provide access to the building even though
18		unbundling is not required in these "greenfield" areas (areas that never had
19		existing copper facilities). Consistent with the FCC's MPOE requirements,
20		BellSouth will make available access to a 64kbps-equivalent voice grade loop at a
21		premise that is only served by fiber facilities. This loop will be capable of
22		supporting services normally available on a voice-capable line.
23		However, the owner of the building can also install his own cable to and within
24		the building. In such a case, the building owner is in control of access,
25		maintenance, and any other issues associated with providing access to the
26		building, including individual units within the building. The building owner can

1		also contract with a preferred provider to serve the units of the building. In that
2		case, the provider is responsible for making access to the individual units
3		available to competing companies, including LECs, CLECs, cable companies, or
4		others.
5		
6	Q.	PLEASE DEFINE "GREENFIELD FIBER LOOPS" AS USED IN ISSUE 23,
7		SUBPART (B).
8		
9	A.	Consistent with the definition of "greenfield" above, "greenfield fiber loops" are
10		part of newly-constructed fiber optic cable facilities to residential or business
11		areas (areas that have never had existing copper facilities). BellSouth, per the
12		TRO Paragraph 273, is not obligated to "offer unbundled access to newly-
13		deployed or "greenfield" fiber loops." As a result, Section 2.1.2.1 of Attachment
14		2 states:
15		
16 17 18 19 20 21		2.1.2.1 In new build (Greenfield) areas, where BellSouth has only deployed FTTH/FTTC facilities, BellSouth is under no obligation to provide Loops. FTTH facilities include fiber loops deployed to the MPOE of a MDU that is predominantly residential regardless of the ownership of the inside wiring from the MPOE to each End User in the MDU.
22		For further explanation, see the discussion on Issue 28 below relating to
23		BellSouth's obligation with respect to FTTH and FTTC architectures. However,
24		BellSouth believes that the effects of the FCC's decision on "greenfield" areas are
25		two-fold.
26		
27		First, it maintains the incentive for LECs to invest in network using the latest
28		technology to provision advanced services to businesses and residential

customers. Second, it paves the way for future services that will be deployed using even greater bandwidth than is common in the local loop today.

3

4 Q. SHOULD BELLSOUTH BE REQUIRED TO PROVIDE ACCESS TO5 UNBUNDLED HYBRID LOOPS?

6

7 A. No, with one limited exception. In the TRO at Paragraph 288, the FCC ruled that 8 hybrid loops should not be unbundled since they are part of the next-generation 9 network. The FCC was concerned that unbundling hybrid loops would stymie the 10 continued deployment of more advanced fiber-based networks. The FCC stated 11 that unbundled next-generation network elements "would blunt the deployment of 12 advanced telecommunications infrastructure by incumbent LECs and the incentive for competitive LECs to invest in their own facilities"⁵ The sole 13 14 exception is to provide access to the time division multiplexing features of a 15 hybrid loop in an overbuild situation (where continued access to existing copper is 16 required by the FCC). As a result, regarding overbuild situations, BellSouth 17 offers the following language in Paragraph 2.1.3 of Attachment 2:

18

19 20 21 BellSouth shall provide <<customer_short_name>> with nondiscriminatory access to the time division multiplexing features, functions and capabilities of such hybrid Loop, on an unbundled basis to establish a complete transmission path between BellSouth's central office and an End User's premises.

24

22

- 25 Q. PLEASE SUMMARIZE BELLSOUTH'S POSITION ON ISSUE 28.
- 26

⁵ TRO at Para. 288.

1 BellSouth maintains that the FCC determined in the TRO that ILECs have no A. obligation to unbundle FTTH mass market loops⁶ serving greenfield areas or 2 areas of new construction.⁷ TRO, at 275. The FCC expanded this ruling to 3 include FTTC loops.⁸ A FTTC loop is a "fiber transmission facility connecting to 4 5 copper distribution plant that is not more than 500 feet from the customer's premises."⁹ Thus, the same unbundling framework (including any unbundling 6 relief) established by the FCC in the TRO for FTTH loops also applies to FTTC 7 8 loops. As a result, no language should be added to interconnection agreements, 9 and none is offered by BellSouth.

10

11 This issue is intertwined with Issue 23 (b) above when determining the 12 appropriate language as it applies to MPOE access requirements at MDUs. The 13 FCC determined that FTTH rules in the TRO apply to predominately residential 14 MDUs, such as apartment buildings, condominium buildings, cooperatives, and 15 planned unit developments. The FCC further stated that the existence of businesses in MDUs does not exempt such buildings from the FTTH unbundling 16 17 framework established in the TRO. For instance, the FCC stated that a "multi-18 level apartment that houses retail stores such as a dry cleaner and/or a mini-mart 19 on the ground floor is predominately residential, while an office building that

⁶A FFTH loop is a "local loop consisting entirely of fiber optic cable (and the attached electronics), whether lit or dark fiber, that connects a customer's premises with a wire center (*i.e.*, from the demarcation point at the customer's premises to the central office)." *TRO* at ¶ 273, n. 802.

⁷The FCC also determined in the *TRO* that ILECs do not have an obligation to unbundle FTTH loops in overbuild situations, except where the ILEC elects to retire existing copper loops in which case the ILEC has to provide unbundled access to a 64 kbps transmission path over the FTTH loop or provide unbundled access to a spare copper loop. *TRO* at ¶ 273, 277.

⁸ Order on Reconsideration, In the Matter of Review of Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, CC Docket No. 01-338, FCC 04-248 at ¶¶ 1,9 (Oct. 18, 2004) ("FTTC Reconsideration Order").

⁹ *FTTC Reconsideration Order* at ¶ 10.

2

contains a floor of residential suites is not."¹⁰

3 The FCC in the MDU Reconsideration Order established that FTTH loops 4 include any "fiber loops deployed to the minimum point of entry ('MPOE') of 5 predominantly residential MDUs, regardless of the ownership of the inside 6 wiring." MDU Order on Reconsideration at ¶ 10. The FCC has defined MPOE 7 as "either the closest practicable point to where the wiring crosses a property line 8 or the closest practicable point to where the wiring enters a multiunit building or buildings." 47 C.F.R. § 68.105(b). Consequently, in cases where the MPOE is 9 10 established, the MPOE is effectively the demarcation point between the inside wire facilities at the MDU and BellSouth's loop facilities.¹¹ Regardless of 11 12 whether the ILEC owns or controls the inside wire beyond the demarcation point 13 in an MDU, when the fiber portion of a loop extends to an MDU and that fiber 14 connects to in-building copper cable facilities owned or controlled by an ILEC, the ILEC has no obligation to unbundle the fiber portion of the loop.¹² To avoid 15 any disparate treatment between FTTC loops and FTTH loops, the FCC has held 16 17 that its rules relating to MDUs applies to both FTTH and FTTC loops. See FTTC *Reconsideration Order* at ¶ 14. 18

19

20 21

Based on these facts, it is clear that BellSouth has no obligation to unbundle or provide access to FTTH or FTTC, other than as noted above.

¹⁰ Order on Reconsideration, In the Matter of Review of Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, CC Docket No. 01-338, FCC 04-191 at ¶ 1 (Aug. 9, 2004) ("MDU Reconsideration Order").

¹¹ In describing this section of the *MDU Order on Reconsideration*, the FCC referred to the section as the "*MDU Demarcation Point*." *MDU Order on Reconsideration* at 10.

¹² In reaching this decision, the FCC specifically addressed BellSouth request for clarification that "'the fiber portion of a loop that extends to a multi-unit building and that connects to in-building copper cable owned or controlled by the LEC, is considered a [FTTH] loop." *MDU Order on Reconsideration* at ¶ 10.

1		
2		As a result, BellSouth's language with respect to FTTC and MDU's in Overbuild
3		areas is clearly provided in Section 2.1.2.2:
4 5 6 7 8 9 10		FTTH/FTTC overbuild situations where BellSouth also has copper Loops, BellSouth will make those copper Loops available to < <customer_short_name>> on an unbundled basis, until such time as BellSouth chooses to retire those copper Loops using the FCC's network disclosure requirements. In these cases, BellSouth will offer a 64 kilobits per second (kbps) second voice grade channel over its FTTH/FTTC facilities.</customer_short_name>
11		
12	Issue	25: Under the FCC's definition of a loop found in 47 C.F.R. §51.319(a), is a
13	mobil	e switching center or cell site an "end user customer's premises"?
14		
15	Q.	WHAT IS BELLSOUTH'S POSITION ON THIS ISSUE?
16		
17	A.	The FCC ruled in both the TRO and Triennial Review Remand Order ("TRRO")
18		that cell sites and mobile switching centers are not included in its definition of the
19		term "end user premises." The FCC said in the TRO at Paragraph 366 that cell
20		sites or base stations should be considered part of the transmission facilities that
21		exist outside of the incumbent LEC's local network. BellSouth does not believe
22		that an administrative line used by the site, or lines used by other customers who
23		happen to occupy the same building as the cell site, fall within the issue the FCC
24		was addressing in this instance, as the Joint CLECs claim in their July 22, 2005,
25		Response to BellSouth's Motion for Summary Judgment. In the case of the
26		administrative line, the site owner could be the actual consumer of the service.
27		The administrative line is not used as an intermediary point for facilities that
28		ultimately provide service to an end user (the end user being a customer of the site

1 owner). With respect to other customers located in the same building or site as 2 the cell tower, BellSouth is not attempting to reclassify its unbundling 3 requirements to those customers who are clearly consuming the services as end-4 users.

- 6 Q. PLEASE EXPLAIN THE DEFINITION OF A LOOP AS REFERENCED IN 47
 7 CFR 51.319(A).
- 8

5

9 A. In 47 CFR 51.319 (a), a loop is defined as "a transmission facility between a 10 distribution frame (or its equivalent) in an incumbent LEC central office and the 11 loop demarcation point at an end-user customer premises. This element includes 12 all features, functions, and capabilities of such transmission facility, including the 13 network interface device. It also includes all electronics, optronics, and 14 intermediate devices (including repeaters and load coils) used to establish the 15 transmission path to the end-user customer premises as well as any inside wire 16 owned or controlled by the incumbent LEC that is part of that transmission path."

- 18 Recognizing the definition of a loop, BellSouth's proposed contract language at
- 19 Section 2.1 provides that:
- 20

17

21 The local loop Network Element is defined as a transmission facility that 22 BellSouth provides pursuant to this Attachment between a distribution 23 frame (or its equivalent) in BellSouth's central office and the loop 24 demarcation point at an End User premises (Loop). Facilities that do not 25 terminate at a demarcation point at an End User premises, including, by 26 way of example, but not limited to, facilities that terminate to another 27 carrier's switch or premises, a cell site, Mobile Switching Center or base 28 station, do not constitute local Loops.

1	Issue	26: What is the appropriate ICA language to implement BellSouth's obligation to
2	provid	le routine network modifications?
3		
4	Q.	WHAT IS BELLSOUTH'S DEFINITION OF ROUTINE NETWORK
5		MODIFICATION ("RNM")?
6		
7	A.	BellSouth subscribes to the FCC's definition of routine network modification and
8		specifically offers the following language for Routine Network Modifications in
9		Paragraph 1.10:
10		
11 12 13		BellSouth will perform Routine Network Modifications (RNM) in accordance with FCC 47 C.F.R. § 51.319 (a)(7) and (e)(4) for Loops and Dedicated Transport provided under this Attachment.
14		
15		The FCC clearly defines a "routine network modification" in Paragraph 632 of the
16		TRO. Specifically, the TRO states, "By 'routine network modifications' we mean
17		that incumbent LECs must perform those activities that incumbent LECs regularly
18		undertake for their own customers."
19		
20	Q.	WHAT IS BELLSOUTH'S POSITION ON THIS ISSUE?
21		
22	A.	BellSouth is not obligated to perform functions under the "routine network
23		modifications" umbrella that it does not normally perform for its own customers.
24		BellSouth will perform routine network modifications, such as line conditioning,
25		that BellSouth regularly undertakes for its own customers (including xDSL
26		customers). In limited situations, BellSouth will also perform additional line

conditioning functions, pursuant to agreements with CLECs in industry
collaboratives. However, functions performed under collaborative agreements are
not routine network modifications, and are, therefore, not required by the FCC.
Thus, BellSouth is operating according to the FCC's ruling in the *TRO* on this
issue. In some situations, as discussed here, BellSouth exceeds the FCC's
requirements.

7

8 Q. WHAT TECHNICAL OR OPERATIONAL PURPOSES DO ROUTINE 9 NETWORK MODIFICATIONS SERVE?

10

A. Routine network modifications are industry-recognized standard changes to
 outside plant infrastructure in order to provide standard services. For example, in
 order for BellSouth (or a CLEC) to offer DS1 service to a customer over 20,000
 feet from a central office, the industry standard calls for signal repeaters to be
 installed. BellSouth routinely places repeaters to provision DS1 service for its
 customers, and also installs these same repeaters to provision the same DS1
 service for CLEC customers on BellSouth loops.

18

Alternatively, non-standard changes to loops are not routine network modifications. For example, industry standards require that load coils be placed on copper loops over 18,000 feet long to provide sufficient quality voice service in the low frequency portion of the loop. Removal of load coils would create a non-standard loop and inhibit the ability to use the loop for voice services until the load coils are replaced sometime in the future. Since load coil removal on a loop over 18,000 feet long is a non-standard request, and extremely rare, it is not

routinely performed. In fact, BellSouth received only two (2) such requests from
all CLECs in 2004. Furthermore, BellSouth does not remove load coils on loops
over 18,000 feet long to serve its own customers. By definition, this line
conditioning procedure is not a routine network modification, and therefore, is not
required by the FCC.

- 6
- 7

Q. IS LINE CONDITIONING A ROUTINE NETWORK MODIFICATION?

8

9 A. Yes. The FCC repeatedly refers to the relationship between line conditioning and 10 routine network modifications in the TRO. In TRO Paragraph 250, the FCC 11 states, "Line conditioning constitutes a form of Routine Network Modification 12" Later, in Paragraph 643, the FCC states. "Line Conditioning is properly 13 seen as a Routine Network Modification" In both cases, the phrase 14 "constitutes a form" and the term "properly" are defined as a "subset." In other 15 words, the FCC clearly identifies BellSouth's line conditioning obligations as a 16 subset of BellSouth's routine network modification obligations. As a result, 17 BellSouth offers the following language in paragraph 2.5.1:

18

19 Line Conditioning is defined as routine network modification that 20 BellSouth regularly undertakes to provide xDSL services to its own 21 customers.

Q. WHAT TYPES OF LINE CONDITIONING HAVE CLECS HISTORICALLY REQUESTED THAT ARE NOT ROUTINE NETWORK MODIFICATIONS? 24

A. Prior to the FCC's clarification of BellSouth's line conditioning obligation as a
 subset of BellSouth routine network modifications obligation, BellSouth had

removed load coils on loops greater than 18,000 feet long (albeit rare), and
 removed bridged taps at the request of CLECs (also uncommon). Since
 BellSouth does not perform either type of line conditioning while provisioning
 xDSL service to its own customers, and they are not routine, BellSouth is not
 obligated to perform this function for CLECs.

6

As further proof that removal of load coils and bridged taps are not routine,
BellSouth (in addition to only two (2) load coil removal requests on loops over
18,000 feet from CLECs in 2004) received only 55 requests from CLECs for
removal of bridged taps of any length in 2004.

11

12 Item 27: What is the appropriate process for establishing a rate, if any, to allow for the 13 cost of routine network modification that is not already recovered in Commission -14 approved recurring or non-recurring rates? What is the appropriate language, if any, 15 to incorporate into the ICAs?

16

17 Q. WHAT IS BELLSOUTH'S POSITION ON THIS ISSUE?

18

A. BellSouth believes that this issue encompasses a basic disagreement between the parties on what functions constitute a routine network modification, since the source of the obligation leads to the process for establishing a rate. If BellSouth is obligated to perform a routine network modification, then the rate for that activity should be based on Total Element Long Range Incremental Cost ("TELRIC"). If BellSouth is not obligated to perform a particular function (such as removal of load coils on loops longer than 18,000 feet or removal of bridged taps), then the

rate should be that contained in the applicable commercial agreement between
 BellSouth and the CLEC, or applicable tariff where appropriate. BellSouth's
 language with respect to rates for RNM's is as follows:

If BellSouth has anticipated such RNM and performs them during normal operations and has recovered the costs for performing such modifications through the rates set forth in Exhibit A, then BellSouth shall perform such RNM at no additional charge. RNM shall be performed within the intervals established for the Network Element and subject to the performance measurements and associated remedies set forth in Attachment 9 of this Agreement to the extent such RNM were anticipated in the setting of such intervals. If BellSouth has not anticipated a requested network modification as being a RNM and has not recovered the costs of such RNM in the rates set forth in Exhibit A, then such request will be handled as a project on an individual case basis. BellSouth will provide a price quote for the request and, upon receipt of payment from <<customer_short_name>>, BellSouth shall perform the RNM.

19 Q. WHAT IS THE REAL ISSUE HERE?

A. CLECs are contesting the requirement by the FCC that BellSouth perform routine network modifications for the CLEC's customer only if BellSouth would normally perform that activity in the course of providing the same service to a BellSouth retail customer. The CLECs have, in other proceedings, pressured state Commissions to order BellSouth to provide, for example, removal of load coils on loops greater than 18,000 feet in length for xDSL customers. BellSouth does not perform that non-standard, non-routine function for its own xDSL customers, and therefore should not be obligated to perform that same function for CLECs' xDSL customers.

31 BellSouth's response to the CLECs has been consistent with the FCC's language

1		provided in the TRO, and BellSouth has offered CLECs alternative solutions. For
2		example, a CLEC may request an activity be performed (such as line conditioning
3		on a loop longer than 18,000 feet) even though that activity is not required by the
4		FCC. As such, special construction is required to make that loop non-standard,
5		and convert it back to industry and BellSouth standards when the CLEC has no
6		further use for it. These costs are appropriately recovered under BellSouth's FCC
7		No. 1 tariff. No interconnection agreement language, or rate, would be
8		appropriate since there is no FCC requirement to provide that function.
9		
10	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
11		
12	А.	Yes.
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